ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9101080354 DOC.DATE: 90/12/28 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH.NAME AUTHOR AFFILIATION
KEISER,H.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
MARTIN,T.T. Region 1 (Post 820201)

See Rpt

SUBJECT: Forwards summary rept of safety evaluations approved during period from Jan-Dec 1989,per 10CFR50.59(b).

DISTRIBUTION CODE: IE47D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 210
TITLE: 50.59 Annual Report of Changes,Tests or Experiments Made W/out Approv

NOTES:LPDR 1 cy Transcripts. 05000387
LPDR 1 cy Transcripts. 05000388

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-2 LA	1	0	PD1-2 PD	1	1
	THADANI,M	1	0			
INTERNAL:	ACRS	1	1	AEOD/DOA	1	1
	AEOD/DSP/TPAB	1	1	NRR/DLPQ/LHFB11	1	1
	NRR/DOEA/OEAB11	1	1	REG FILE 02	1	1
	RGN1 FILE 01	1	1			
EXTERNAL:	NRC PDR	1	1	NSIC	1	1
NOTES:		2	2			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 23 ENCL 10

RIDS/ADDS

RIDS/ADDS

Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Harold W. Keiser
Senior Vice President-Nuclear
215/774-4194

Submitted pursuant to 10CFR50.59

DEC 28 1990

Mr. Thomas T. Martin
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
10CFR50.59 SUMMARY REPORT - 1989
PLA-3495 FILE R41-2A

Dear Mr. Martin:

Pursuant to 10CFR50.59(b), enclosed please find a summary report of the safety evaluations approved during the period from January 1, 1989 to December 31, 1989 for Susquehanna SES Units 1 and 2.

The report format is as follows:

SER No. -	*Unique number for each safety evaluation.*
Cross Reference -	*Reference to the document for which the safety evaluation was prepared.*
Description Change -	*A brief description of the change made to procedures, equipment or tests.*
Summary -	*A summary of the three requirements for determining an unreviewed safety question as defined in 10CFR50.59(a)(2).*

If you have any question, please contact C. T. Coddington at (215) 774-7915.

Very truly yours,

H. W. Keiser

Attachment

IE47
1/1

cc: NRC Document Control Desk (original)
Mr. M.C. Thadani, NRC Project Manager
Mr. G.S. Barber, NRC Sr. Resident Inspector

SER NO.: 89-001 #9101080354

CROSS REFERENCE: PMR 88-3018A, Rev. 0
DCP 88-3018A

DESCRIPTION OF CHANGE:

Per the Appendix R analysis, the emergency switchgear room coolers are required to support safe shutdown and must be operable. This modification ensures the operability of Emergency Switchgear Room Cooling Fan 2V222B and component HD27630B for Safe Shutdown Paths 2 and 3. It also ensures that HD27630A does not spuriously operate (open) during operation of fan 2V222A.

SUMMARY:

I. No. The modification provides for the automatic start of the safety related fan, should the control circuit for the fan become disabled due to a fire. The modification is independent from, and isolated from, the present control circuit up to the final element in the fan starter circuit, by the auxiliary relay used for transfer of controls. The existing functions of the system are retained for normal operation. The design basis and system performance requirements as described in the FSAR are not altered. This modification ensures compliance with the FPRR.

II. No. The modification provides an alternate circuit to start the fan should control from the control room become unavailable. The modification is in accordance with existing design criteria for the system an does not adversely affect the function of the system. The modification does not change the operating features of the present system or add a new type of failure mode, as identified in the FSAR.

III. No. The modification provides an alternate means of assuring ventilation flow in the affected area should control become unavailable. The modification performs this function independently of the existing control arrangement. Also, this modification increases the margin of safety by ensuring the system will operate in the event of a fire.

SER NO.: 89-002

CROSS REFERENCE: PMR 88-3017C, Rev. 0

DESCRIPTION OF CHANGE:

The emergency lighting units added by this modification are required to operate after a loss of offsite power. They will provide 8 hours of illumination for selected equipment and routes of access and egress that may be required to be operated by local operator action.

SUMMARY:

I. No. The emergency lighting units do not affect safety-related systems or equipment. Electrical separation is maintained between the new units and the existing systems. The emergency lighting units will be installed using seismically designed supports. All safety impact or II/I issues have been analyzed. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Diesel generator loading is addressed and the emergency lighting units added by this modification are acceptable. Voltage drop and circuit ampacity are within design limits as analyzed. The combustible load increase is within the design limit maximum. This modification does not interfere with the logic, control or operation of any safety-related plant system or components.

II. No. The emergency lighting units do not affect safety-related systems or equipment. Electrical separation is maintained between the new units and the existing systems. The emergency lighting units will be installed using seismically designed supports. All safety impact or II/I issues have been analyzed. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Diesel generator loading is addressed and the emergency lighting units added by this modification are acceptable. Voltage drop and circuit ampacity are within design limits. The combustible load increase is within the design limit maximum. This modification does not interfere with the logic, control or operation of any safety-related plant system or components.

III. No. This modification does not interfere with the logic, control or operation of any safety-related plant system or component. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Voltage drop and load ampacity are within design limits. This modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

SER NO.: 89-003

CROSS REFERENCE: PMR 87-9145, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides radiation shielding for the gap between the east wall of the TIP room and Containment on Unit 1.

SUMMARY:

I. No. This modification has no impact on the potential accidents discussed in Chapter 15 of the FSAR. It does not interact with any plant system and thus cannot increase the probability or consequence of an accident or malfunction of equipment related to safety.

II. No. Since this modification is passive in nature (shielding is only an extension of the existing TIP Room wall), it does not create a possibility for an accident or malfunction of a different type than previously evaluated in the FSAR.

III. No. A review of Technical Specification Sections B2 and B3/4 reveals that this modification will not conflict with any Technical Specification safety margin.

SER NO.: 89-004

CROSS REFERENCE: PMR 87-9146, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides radiation shielding for the gap between the east wall of the TIP room and Containment on Unit 2.

SUMMARY:

I. No. This modification has no impact on the potential accidents discussed in Chapter 15 of the FSAR. It does not interact with any plant system and thus cannot increase the probability or consequence of an accident or malfunction of equipment related to safety.

II. No. Since this modification is passive in nature (shielding is only an extension of the existing TIP Room wall), it does not create a possibility for an accident or malfunction of a different type than previously evaluated in the FSAR.

III. No. A review of Technical Specification Sections B2 and B3/4 reveals that this modification will not conflict with any Technical Specification safety margin.

SER NO.: 89-005

CROSS REFERENCE: PMR 88-3017N, Rev. 0

DESCRIPTION OF CHANGE:

This change adds fire wrap protection for cable raceways associated with the Unit 1 Emergency Switchgear Room Chilled Water Valves in order to comply with Appendix R requirements.

SUMMARY:

I. No. The addition of the fire protective enclosures decreases the probability of occurrence or the consequences of an accident or malfunction of equipment related to safety, as previously evaluated in the FSAR because of the additional protection provided for the safe shutdown circuits.

II. No. The installation of fire protective enclosures on electrical conduits and junction boxes does not interfere with the logic, control or operation of any plant systems or components.

III. No. Plant parameters are not effected by this modification. Therefore, the margin of safety as defined in the basis for any Technical Specification is increased by the installation of the fire enclosures because of the additional protection provided for safe shutdown circuits.

SER NO.: 89-006

CROSS REFERENCE: PMR 88-3018M, Rev. 0

DESCRIPTION OF CHANGE:

This modification relocates and replaces Unit #2 ESWGR and LC Room Cooling Unit condenser pressure control loop instruments from the Unit #2 Reactor Building to the Control Structure. The intended purpose of this modification is to eliminate environmental qualification problems for this instrumentation and improve the system reliability by relocating them to a milder environment.

SUMMARY:

I. No. This modification does not change the operation of the Unit #2 ESWGR and LC Room Cooling System or change the plant operator's interface with this system or any other safety-related system. FSAR Sections 9.4.2.2.2, 6, 7.3, 9.3, 9.4 and 15 were reviewed.

II. No. This modification is in accordance with existing design criteria for the ESWGR and LC Room Cooling System and does not adversely affect the function of the system or any other safety-related system. Therefore, this modification allows the equipment to function as originally intended. In addition, this design change does not modify any accidents evaluated in FSAR Sections 6, 7.3, 9.3, 9.4 and 15.

III. No. This modification resolves environmental qualification deficiencies by relocating and replacing ESWGR and LC Room Cooling Unit condenser pressure control loop instrumentation from an environmentally harsh area (Unit #2 Reactor Building) to a mild areas (Control Structure).

SER NO.: 89-007

CROSS REFERENCE: PMR 87-9041, Rev. 1

DESCRIPTION OF CHANGE:

This change relocates the outboard MSIV instrument air line removable/splice connections to a more convenient location and changes the formed plate guide supports to sway strut rigid restraint supports.

SUMMARY:

I. No. The modification does not alter the physical layout, function, or design intent of the system. The proposed modification is structurally equivalent to the existing condition.

II. No. Since this modification only deals with the pipe support configurations of the compressed air lines to the MSIVs, the ability of the Instrument Air System to function as designed is not changed or impaired.

III. No. The modification of the subject pipe supports will not affect the function of the Instrument Air System, nor will it compromise the function of any system addressed in the Technical Specifications.

SER NO.: 89-008

CROSS REFERENCE: PMR 88-3016H, Rev. 1

DESCRIPTION OF CHANGE:

This modification will install a control panel (0C879) on Elev. 783 in Area 21. This panel will have transfer switches for isolating the controls for CSHVAC equipment, a control switch for each of the individual pieces of equipment, and indicating lights to show switch position.

SUMMARY:

I. No. The accident categories addressed by Chapter 15 of the FSAR were reviewed and this modification does not increase the probability of occurrence of the consequences of the accidents identified.

II. No. This modification does not create any additional scenarios which could prevent the CSHVAC system from fulfilling its design requirements, either for normal or emergency operation.

III. No. The only Technical Specification that addresses the CSHVAC system is 3/4.7.2 for the Control Room Emergency Outside Air Supply System (CREOASS). This modification has no effect on the CREOASS System.

SER NO.: 89-009

CROSS REFERENCE: NL-89-047, Rev. 1

DESCRIPTION OF CHANGE:

This change evaluates the sodium used in Reactor Building Chilled Water as a corrosion inhibitor which has become activated. RBCW is normally not contaminated.

SUMMARY:

I. No. The low radiation levels (4E-7 uci/ml) will have no impact on operation of the system or any of the associated components.

II. No. Unmonitored releases are already evaluated and bounded.

III. No. The potential dose consequences if all the sodium is released are well below the Technical Specification limit of 15 mrem/yr.

SER NO.: 89-010

CROSS REFERENCE: PMR 88-3017Q, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides emergency lighting for required local actions per Appendix R.

SUMMARY:

I. No. The addition of emergency lights has no impact on safety-related systems.

II. No. Electrical separation and seismic supports preclude impacts on safety systems. This modification does not interfere with the logic, control, or operation of any safety-related system.

III. No. Upstream breakers are coordinated with upstream devices. Voltage drops and load ampacity are within the design limits.

SER NO.: 89-011

CROSS REFERENCE: PMR 88-3018P, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides emergency lighting for required local actions per Appendix R.

SUMMARY:

I. No. The addition of emergency lights has no impact on safety-related systems.

II. No. Electrical separation and seismic supports preclude impacts on safety systems. This modification does not interfere with the logic, control, or operation of any safety-related system.

III. No. Upstream breakers are coordinated with upstream devices. Voltage drops and load ampacity are within the design limits.

SER NO.: 89-012

CROSS REFERENCE: NL-89-002

DESCRIPTION OF CHANGE:

This safety evaluation reviews the proposed use of the Dry Active Waste (DAW) Volume Reduction System at the Susquehanna Steam Electric Station. This equipment will enable the segregation of non-radioactive waste from radioactive waste, thereby reducing storage, shipping and disposal costs. This safety evaluation does not include those non-radiological safety considerations which were evaluated previously.

SUMMARY:

I. No. The Dry Active Waste (DAW) Volume Reduction System is a stand alone, temporary facility. The system has no safety related functions and the facility does not interface with any safety related systems. The sorting trailers do not play a critical role in plant operating.

II. No. Accident analysis in the FSAR are not performed for scenarios involving the Solid Radwaste System. Unlike the Liquid Radwaste System, the Solid Radwaste System, which includes Dry Active Waste Processing, is not designed for routine effluent dilution and/or release.

III. No. The facility is a temporary stand alone trash sorting system of the Solid Waste Management system and does not conflict with the basis for Technical Specification 3.11.3. The facility does not interfere with any other system or component governed by the Technical Specifications.

SER NO.: 89-013

CROSS REFERENCE: PMR 86-9029, Rev. 0

DESCRIPTION OF CHANGE:

This change installs a manually initiated bypass logic in the feedwater heater extraction steam isolation valve control circuitry to allow operations through use of a single switch in each panel to bypass the feedwater heater high-high level switch interlock of the extraction steam isolation valve.

SUMMARY:

I. No. As stated in FSAR Section 10.4.7, and 10.4.10 the subject systems have no safety related function. The proposed change does not alter this status.

II. No. The sole purpose of the change is to relieve a design and system impasse which occurs during plant startup. Nuclear safety is not compromised and associated protection features afford ample safeguards against turbine damage.

III. No. The change does not affect the extraction steam isolation valve actuation initiated by a turbine trip as dealt with in Technical Specifications 3/4.3.8 and 3/4.3.9. The change does not interact directly with the trip system actuation instrumentation on any safety related logic string.

SER NO.: 89-014

CROSS REFERENCE: PMR 87-9044, Rev. 0

DESCRIPTION OF CHANGE:

This modification replaces the seat ring, plug and gasket of condensate pump seal water regulatory valves to allow the valves to provide the required flow to the condensate pump seals at the required pressure.

SUMMARY:

I. No. The proposed modification will only provide the capability to supply the proper flow rate and pressure pump seals. The condensate system is designed to return condensate from the condenser hot well to the feedwater heaters and has no safety related function. As described in Section 10.4.7.3 of the FSAR, the condensate system is not essential for the safe shutdown of the plant.

II. No. The seal water supplies to the condensate pump seals are non-safety related and their failure will not cause any safety related equipment to fail. This modification is consistent with the original design as described in Section 10.4.7.2 of the FSAR.

III. No. The Condensate System is not safety-related and is not addressed in the basis for any Technical Specifications. Furthermore, this modification will not allow any safety-related components to be impacted.

SER NO.: 89-015

CROSS REFERENCE: PMR 87-9045, Rev. 0

DESCRIPTION OF CHANGE:

This modification replaces the seat ring, plug and gasket of condensate pump seal water regulating valves to allow the valves to provide the required flow to the condensate pump seals at the required pressure.

SUMMARY:

I. No. The proposed modification will only provide the capability to supply the proper flow rate and pressure to the condensate pump seals. The condensate system is designed to return condensate from the condenser hot well to the feedwater heaters and has no safety related function. As described in Section 10.4.7.3 of the FSAR, the condensate system is not essential for the safe shutdown of the plant.

II. No. The seal water supplies to the condensate pump seals are non-safety related and their failure will not cause any safety related equipment to fail. This modification is consistent with the original design as described in Section 10.4.7.2. of the FSAR.

III. No. The Condensate System is not safety-related and is not addressed in the basis for any Technical Specifications. Furthermore, this modification will not allow any safety-related components to be impacted.

SER NO.: 89-016

CROSS REFERENCE: PMR 87-9136, Rev. 0

DESCRIPTION OF CHANGE:

This change reworks the existing Unit II condensate demin common vent drain funnel to avoid spillage/splashing and installs a sight flow indicator in the condensate demin common vent line with lighting to permit remote video monitoring of condensate demin venting from a permanent closed circuit camera. This modification will enable Plant Operations to satisfy plant procedural venting requirements and will also enhance ALARA commitments by reducing radiation exposure to plant operators.

SUMMARY:

I. No. The Condensate Demineralizer System is designated as non-safety related and the physical location of the change is within the Unit I Turbine Building with no safety related equipment present. The proposed modification will reduce plant operators' radiation exposure and help provide for improved operation. Appendix R requirements have been evaluated and satisfied. Failure of the proposed modification will not affect the overall operation of the plant.

II. No. Failure of the proposed remote camera/sight flow indicator has been evaluated as having no effect on overall plant operation.

III. No. The Condensate Demineralizer System is a non-safety system and is not covered by the Technical Specifications.

SER NO.: 89-017

CROSS REFERENCE: PMR 87-9137, Rev. 0

DESCRIPTION OF CHANGE:

This change reworks the existing Unit II condensate demin common vent drain funnel to avoid spillage/splashing and installs a sight flow indicator in the condensate demin common vent line with lighting to permit remote video monitoring of condensate demin venting from a permanent closed circuit camera. This modification will enable Plant Operations to satisfy plant procedural venting requirements and will also enhance ALARA commitments by reducing radiation exposure to plant operators.

SUMMARY:

I. No. The Condensate Demineralizer System is designated as non-safety related and the physical location of the change is within the Unit I Turbine Building with no safety related equipment present. The proposed modification will reduce plant operators' radiation exposure and help provide for improved operation. Appendix R requirements have been evaluated and satisfied. Failure of the proposed modification will not affect the overall operation of the plant.

II. No. Failure of the proposed remote camera/sight flow indicator has been evaluated as having no effect on overall plant operation.

III. No. The Condensate Demineralizer System is a non-safety system and is not covered by the Technical Specifications.

SER NO.: 89-018

CROSS REFERENCE: PMR 87-9199, Rev. 0

DESCRIPTION OF CHANGE:

Valve internals for the RCIC full flow test valve will be replaced with special throttling internals to allow the valve to pass the required flow at the designed ΔP while being approximately 80% open. This will eliminate vibration and cavitation problems.

SUMMARY:

I. No. The modification does not affect the ability of the valve to close as required to support RCIC injection to the RPV. Consequently, the ability of the RCIC system to operate as evaluated in the FSAR is not affected.

II. No. This modification will enhance the ability of the RCIC full flow test valve to perform its required function. The new throttling trim enhances the throttling capability of the valve having no adverse affect on the closing ability.

III. No. The margin of safety is unaffected since the new internals are functionally a one for one replacement. There are no adverse impacts to the valve seismic qualification. There is no reduction in the margin of safety as defined in Technical Specification Basis 3/4.7.3.

SER NO.: 89-019

CROSS REFERENCE: PMR 88-3017B

DESCRIPTION OF CHANGE:

This change modifies the HV-E11-1F009 valve opening control circuit such that any potential short-circuit condition in Fire Zone 1-2D will not energize the valve opening contactor auxiliary relay 42xR-236052. This will ensure that a flow diversion path is not created.

SUMMARY:

I. No. The proposed action to rewire the valve HV-E11-1F009 opening control circuit does not change the existing operation or function of the valve or the RHR system. Installation of the proposed modification maintains the interdependence of redundant Class 1E systems as described in the FSAR Sections 8.3.1.11.4 and 8.1.6.1.n.

II. No. The wiring modification to transpose the normally open K33 contact and the contact 26 of HSS-15112A does not change the overall control logic of the valve HV-E11-1F009 or the operation of the RHR system.

III. No. The operation of the RHR system as identified in Technical Specification 3/4.4.9 is not affected by the transposition of the K33 contact and contact 26 of HSS-15112A in the opening circuit of valve HV-E11-1F009.

SER NO.: 89-020

CROSS REFERENCE: PMR 88-3054, Rev. 1
DCP 86-7033

DESCRIPTION OF CHANGE:

Revision 1 modifies SPDS software to reflect the electrical disabling/deletion of associated values in DCP #86-7033. The SPDS portion modifies SPDS Containment Isolation Software and related software to reflect the valve changes described. Containment Isolation algorithms need to be modified to present the proper isolation conditions on displays and in system messages.

SUMMARY:

I. No. The SPDS portion of this modification affects only the SPDS software on the host computer, which is a non-safety-related portion of SPDS. This minor change to SPDS does not affect its ability to perform in accordance with the design basis. SPDS is not required for safe operation of the plant, and it is not required for safe shutdown.

II. No. The SPDS portion of this modification affects only the SPDS software on the host computer, which is a non-safety-related portion of SPDS. This minor change to SPDS does not affect its ability to perform in accordance with the design basis.

III. No. The SPDS portion of this modification affects only the SPDS software on the host computer, which is a non-safety-related portion of SPDS. This minor change to SPDS does not affect its ability to perform in accordance with the design basis.

SER NO.: 89-021

CROSS REFERENCE: TP-145-013, Rev. 0

DESCRIPTION OF CHANGE:

This change evaluates the actions to be used to attempt to open the Unit 1 "B" RFP discharge isolation valve.

SUMMARY:

I. No. Forces used will not exceed the design capabilities of the pressure boundary of the valve. Failures are bounded by FSAR analysis.

II. No. This is a maintenance valve and is outside the Primary Containment integrity boundary. Failures are bounded by FSAR analysis in Section 6.2.3.2.3.1.

III. No. This valve s outside the isolation boundary as described in Technical Specification Sections 3.6.1.1 and 3.6.1.2.

SER NO.: 89-022

CROSS REFERENCE: PMR 88-3016H, Rev. 2

DESCRIPTION OF CHANGE:

This change is Appendix R modification to add a remote panel with transfer switches for control structure HVAC to provide for safe shutdown during a control room fire.

SUMMARY:

I. No. This change is required to comply with Appendix R. The change meets single failure criteria and ensures safe shutdown outside the control room during a control room fire.

II. No. A failure would have no effect on the normal control circuitry for the components controlled by the transfer switch.

III.No. Addition of these switches has no impact on the function of the Control Structure HVAC as described in Technical Specification 3/4.7.2.

SER NO.: 89-023

CROSS REFERENCE: PMR 88-3016P, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides emergency lighting for required local actions per Appendix R.

SUMMARY:

I. No. The addition of 8-hour emergency lights has no impact on safety-related systems.

II. No. Electrical separation and seismic supports preclude impacts on safety systems. This modification does not interfere with the logic, control, or operation of any safety-related system.

III. No. Upstream breakers are coordinated with upstream devices. Voltage drops and load ampacity are within design limits.

SER NO.: 89-024

CROSS REFERENCE: PMR 87-9179, Rev. 0

DESCRIPTION OF CHANGE:

This change installs keylock switches to bypass the Liquid Waste Management System interlocks for cooling tower blowdown flow and liquid radwaste effluent radiator.

SUMMARY:

I. No. The modification will provide for more direct operational control with respect to process control and visual awareness of releases when monitoring instrumentation is out of service. The switches will perform the same functions as jumpers with the added feature of local and main control room indication.

II. No. Plant administrative procedures assure that the radionuclide activity concentrations in normal (with effluent monitoring instrumentation available) and off-normal (without instrumentation available) liquid releases are within the limits established by 10CFR20 and 50. Installation of keylock bypass switches does not modify the procedural controls presently established.

III. No. The proposed keylock switches will be utilized in a manner complaint with the requirements as specified in the Technical Specifications.

SER NO.: 89-025

CROSS REFERENCE: PMR 87-9197, Rev. 0

DESCRIPTION OF CHANGE:

The motor bases on the ESWGR Room Fans are to be removed and replaced with new motor bases because the existing motor bases are bent. The new motor bases are the same size and material as the existing motor bases but are thicker.

SUMMARY:

I. No. As discussed in Section 9.4.2.2.2 and 9.4.2.2.3 of the FSAR, the ESWGR Cooling Units are Seismic Category I and required for operating during both normal and accident conditions including post DBA. The modification will not affect the function of the ESWGR cooling units and will improve performance by minimizing vibration potential. The new fan motor bases are being furnished by the manufacturer of the cooling units and will not affect any previously provided design basis documentation on this equipment, including seismic.

II. No. The modification to replace the existing motor bases with new upgraded motor bases does not alter the intended function of the ESWGR Room Cooling as described in Section 9.4.2.2.2 of the FSAR. The ESWGR Room Coolers will perform according to the existing design basis as described in Section 9.4.2.2.1 of the FSAR.

III. No. Although the Technical Specifications do not include specific requirements for the ESWGR Room Coolers, they are required as attendant cooling for the switchgears. Therefore, Technical Specification Section 3/4.8 relating to switchgears was reviewed for applicability. This modification does not reduce the operability for applicability. This modification does not reduce the operability of any equipment nor require addition surveillance to ensure plant safety. This modification does not change the function of the ESWGR cooling units.

SER NO.: 89-026

CROSS REFERENCE: NL-89-048, Rev. 0

DESCRIPTION OF CHANGE:

This change evaluates TBCCW being removed from service.

SUMMARY:

I. No. Alternate cooling from Turbine Building Chilled Water will be provided to the CRD pumps, and two temporary air compressors will be used to replace Instrument Air and Service Air. Loss of these systems is analyzed.

II. No. Loss of the affected system is analyzed.

III. No. The proposed action has no effect on Technical Specification bases, Sections 3/4.9.9, 3/4.1.3.5.6 and 3/4.9.3.

SER NO.: 89-027

CROSS REFERENCE: PMR 87-9204, Rev. 0

DESCRIPTION OF CHANGE:

The motor bases on the ESWGR Room Fans are to be removed and replaced with new motor bases because the existing motor bases are bent. The new motor bases are the same size and material as the existing motor bases but are thicker.

SUMMARY:

I. No. As discussed in Section 9.4.2.2.2 and 9.4.2.2.3 of the FSAR, the ESWGR Cooling Units are Seismic Category I and required for operation during both normal and accident conditions including post DBA. The modification will not affect the function of the ESWGR cooling units and will improve performance by minimizing vibration potential. The new fan motor bases are being furnished by the manufacturer of the cooling units and will not affect any previously provided design basis documentation on this equipment, including seismic.

II. No. The modification to replace the existing motor bases with new upgraded motor bases does not alter the intended function of the ESWGR Room Cooling as described in Section 9.4.2.2.2 of the FSAR. The ESWGR Room Coolers will perform according to the existing design basis as described in Section 9.4.2.2.1 of the FSAR.

III. No. Although the Technical Specifications do not include specific requirements for the ESWGR Room Coolers, they are required as attendant cooling for the switchgears. Therefore, Technical Specification Section 3/4.8 relating to switchgear was reviewed for applicability. This modification does not reduce the operability of any equipment nor require additional surveillance to ensure plant safety. This modification does not change the function of the ESWGR cooling units.

SER NO.: 89-028

CROSS REFERENCE: PMR 87-9143, Rev. 0

DESCRIPTION OF CHANGE:

The change adds relays to the four local indication panels to modify the logic to provide indication in the control room for any indeterminate condition. This modification will provide unambiguous indication (both open and closed indicating lamps will be energized) if any valve fails in an intermediate position.

SUMMARY:

I. No. The proposed modification affects only the control room and SPDS indication logic of the Containment Atmosphere Control System isolation valves. The controls and isolation signals for the valves as discussed in FSAR Section 6.2.4 are not affected. This modification only changes the indication downstream of the position indicating reed switches. The modification results in the existing control room indicators providing true indication if one or more valves fail in an intermediate position.

II. No. The proposed modification enhances the existing Containment Atmosphere Control System isolation valve status indication referenced in FSAR Section 7.5.1b by energizing both the open and closed indicating lamps if one or more valves fail in an intermediate position. Qualified hardware is used and qualification panels maintained. Existing external circuits are not affected. No changes are made to the existing control or isolation logic, only the control room indication logic.

III. No. Primary Containment Isolation Valves are discussed in the basis for Technical Specification 3/4.6.3. Operability of the isolation valves as discussed in this section is unaffected by this modification. Only the valves status indication logic for control room indication is modified (no control or functional changes). Similarly, the operability of the Accident Monitoring Instrumentation (H_2/O_2 Analyzers and Containment Radiation Monitors) as found in the basis for Technical Specification 3/4.3.7.5 is unaffected.

SER NO.: 89-029

CROSS REFERENCE: PMR 87-9022, Rev. 0

DESCRIPTION OF CHANGE:

Transient Monitoring system points 184, 185 and 186 must be relocated to monitor step generator input demand signals during performance of Feedwater Control System and Recirc M-G Set Speed Control Tuneups.

SUMMARY:

I. No. The Transient Monitoring system points are located in non-safety related circuitry of the control systems. The points are moved to an electrically equivalent location downstream of previously installed test switches and jacks thus identical data is supplied at the new location.

II. No. All work involves minor wiring changes in non-safety related circuitry of the control system. As such the installation will not impose a II/I safety impact concern to safety concern to any system used to mitigate transients or accidents described/analyzed in Chapter 15 of the FSAR.

III. No. The change allows for monitoring of the Feedwater and Reactor Recirculation Control Systems as configured for testing and tuning. This modification is to non-safety related circuitry. The Technical Specifications do not address this equipment.

SER NO.: 89-030

CROSS REFERENCE: PMR 88-9003, Rev. 0

DESCRIPTION OF CHANGE:

The proposed repair involves welding cover plates over the ends of all 48 washer/nut assemblies to ensure that these pieces cannot become loose parts in the reactor coolant system and that the tie rods will remain in position for spacing of the baffle plates in the hoods. If a washer/nut assembly is pushed out away from the hood, implementation of this proposed modification shall grind it flush with the dryer hoods to permit the cover plate to be attached.

SUMMARY:

I. No. FSAR Section 4.1.2.4 discusses the steam dryer. In this section the moisture removal function of the dryer is described. The proposed modification has no effect on dryer performance. The proposed modification simply prevents the washer, nuts, and tie bar spacers from becoming loose parts. There is no effect on plant safety.

II. No. The steam dryer is a non-code, non-safety related reactor internal component. However, it is designed to maintain its integrity under a variety of design basis loads. The proposed modification has no effect on dryer gross structural performance.

III. No. The proposed modification places cover plates over the washer/nut assemblies to prevent their failures from becoming loose parts. Because the modification does not affect the dryer's gross structural performance, the margin of safety, as defined in the basis for any technical specification, is not reduced.

SER NO.: 89-031

CROSS REFERENCE: PMR 88-3018R, Rev. 1

DESCRIPTION OF CHANGE:

This change installs a two-position bypass switch in the open control circuit for each Core Spray Inboard Injection Shut-off Valve.

SUMMARY:

I. No. This change is necessary due to Appendix R concerns. This modification significantly reduces the probability of core damage due to transients with SCRAM.

II. No. All possible single failures of the switch are bounded by failures analyzed in FSAR Section 6.3.2.5 and FSAR Table 6.3-5.

III. No. Addition of the switches has no impact on the Core Spray System functions or testing as discussed in Technical Specifications B3/4.5.1 and 3/4.5.2.

SER NO.: 89-032

CROSS REFERENCE: NL-89-046, Rev. 0

DESCRIPTION OF CHANGE:

This bypass removes automatic closure for the drywell air purge supply outboard isolation valve by bypassing the solenoid operator. Manual closure is still possible.

SUMMARY:

I. No. These isolation valves are not required to be operable in Conditions 4 or 5. The bypass will be installed and removed prior to entering Conditions 1, 2 or 3.

II. No. Other valves in these lines retain their automatic closure function. For the duration of the bypass, automatic closure is not required.

III. No. The bases for Technical Specification Sections 3/4.6.1.8 and 3.6.3 are not affected by this bypass.

SER NO.: 89-033

CROSS REFERENCE: PMR 86-9079, Rev. 0

DESCRIPTION OF CHANGE:

This change modifies the Feedwater 1F011B valve in order to stop leakage thru the valve body-to-bonnet seal.

SUMMARY:

I. No. The existing valve pressure seal will remain as the primary pressure seal and the canopy ring will serve only to retain minor leakage. The function of the existing pressure seal components will not be changed. The intent of the modification is only to stop leakage from the valve and prevent further degradation of the valve components. This modification does not alter the function of or prevent the operation of any safety related components.

II. No. The valve has no active safety function and can only be operated from inside containment. The addition of the canopy ring will not change the intended function of the valve or prevent the valve from being operated.

III. No. Technical Specification 3/4.4.3 offers several maximum allowable leakage rate based on pipe cracks. With the canopy ring installed, these specifications provide adequate protection since the canopy ring as designed is incapable of failing in a way that is more severe than the pipe cracks which this specification addresses.

SER NO.: 89-034

CROSS REFERENCE: PMR 87-9189, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides cooling water from the condensate system as the source of water to cool bearings for the concentrate pumps. Previously the source of cooling water came from the process fluid which created excessive heat and bearing failure.

SUMMARY:

I. No. The equipment-components involved are non-safety related and located in the radwaste building. There are no safety related items involved or affected. The addition of permanent tubing from the condensate line to the pump bearings has no function related to safety.

II. No. This modification will cross connect the Liquid Radwaste Concentrate Pump to the Condensate System. System pressures were reviewed to insure the higher contaminated system (Pump Discharge) does not enter the Condensate System. In addition, a check valve will be added to the condensate branch line to prevent any possibility of backflow to the less contaminated condensate.

III. No. Technical Specification 3/4.11 provides the bases and limiting condition of operation for liquid radwaste treatment system. The operation of the pumps is not altered. The only change is the pumps source of cooling water for its bearings.

SER NO.: 89-035

CROSS REFERENCE: PMR 88-3017F, Rev. 1

DESCRIPTION OF CHANGE:

This modification provides valve HV-G33-1F004 with circuit isolation through a new isolation control transfer switch in the remote shutdown panel in order to isolate the RWCU system for a fire in the control room.

SUMMARY:

I. No. The action to add isolation circuitry from the remote shutdown panel does not change the existing logic or function of the RWCU valve when controlled from the control room. It will not prevent the valve from automatic closure on signals from the reactor coolant pressure boundary leak detection system or the SLC system as described in FSAR Section 5.4.8.2.

II. No. The new control transfer switch has been seismically analyzed. The new terminal block will be seismically analyzed and mounted. New circuitry between panel and the cubicle is in existing seismically supported raceway. Divisional separation is maintained.

III. No. Technical Specification 3.8.4.2.1 requires that the overload bypass of the valves be continuously bypassed for the valves to be operable. The proposed action does not affect the thermal overload bypass on the valve when controlled from the control room. The additional operator flexibility to terminate or re-establish letdown through the RWCU system from the remote shutdown panel does not increase the complexity in responding to a normal plant shutdown.

SER NO.: 89-036

CROSS REFERENCE: PMR 88-3017H, Rev. 2

DESCRIPTION OF CHANGE:

This action removes Division 1 RHR system valve controls and the outboard Division II isolation valve control associated with head spray from the remote shutdown panel in order to meet the electrical separation requirements of Appendix R Section III.G.2.

SUMMARY:

I. No. The proposed action removes the RHR System Division I valves and the outboard Division II isolation valve controls associated with Head Spray from the Remote Shutdown Panel so that a fire in Fire Zone I-2D will not affect the components and cables required for Division I safe shutdown. This assures that in the event of a fire in the RSP (Fire Zone 1-2D) that the RHR system is capable of performing its safe shutdown functions from the Control Room as described in the FSAR Section 7.4.

II. No. Removal of the RHR System Division I valves and the outboard Division II isolation valve controls associated with Head Spray from the RSP has no impact or effects on the design basis or analysis of the RHR system as described in the FSAR. Installation of the proposed modification maintains the interdependence of redundant Class 1E systems as described in FSAR Section 8.3.1.11.4 and 8.1.6.1.n.

III. No. The Reactor Coolant System maximum cooldown rate of 100°F F/hr and the reactor vessel flange and head flange temperature limit of 70°F as required in Technical Specification 3/4.4.6 are not affected. The proposed action does eliminate the possibility of a fire in the RSP from affecting the Division I RHR system when safe shutdown is conducted from the main control room.

SER NO.: 89-037

CROSS REFERENCE: PMR 88-3033, Rev. 0

DESCRIPTION OF CHANGE:

This action involves a 100% replacement of the 90/10 Cu/Ni tubes in the common GRRCW heat exchanger with AL-6XN tubes for increased immunity to pitting.

SUMMARY:

I. No. A discussion of the GRRCCW System is included in Section 9.2.4 of the FSAR. The proposed modification will not impact the operation of the GRRCCW system or any of the support systems.

II. No. This action involves only the replacement of tubes on the common GRRCW heat exchanger which will not impact the operation of the system or any support system.

III. No. The action will not impact the operation of the GRRCCW system nor any of the systems which the GRRCCW system is designed to support. This action therefore will not impact the operation of any system in the plant.

SER NO.: 89-038

CROSS REFERENCE: PMR 88-3034, Rev. 0

DESCRIPTION OF CHANGE:

This action involves a 100% replacement of the 90/10 Cu/Ni tube in the Unit 1 GRRCCW heat exchanger with AL-6XN tubes for increased immunity to pitting.

SUMMARY:

I. No. A discussion of the GRRCW System is included in Section 9.2.4 of the FSAR. The proposed modification will not impact the operation of the GRRCW system or any of the support systems.

II. No. This action involves only the replacement of tubes on the Unit 1 GRRCW heat exchanger which will not impact the operation of the system or any support system.

III. No. The action will not impact the operation of the GRRCW system nor any of the systems which the GRRCW system is design to support. This action therefore will not impact the operation of any system in the plant.

SER NO.: 89-039

CROSS REFERENCE: PMR 88-3035, Rev. 0

DESCRIPTION OF CHANGE:

This action involves a 100% replacement of the 90/10 Cu/Ni tubes in the Unit 2 GRRCCW heat exchangers with AL-6XN tubes for increased immunity to pitting.

SUMMARY:

I. No. A discussion of the GRRCW System is included in Section 9.2.4 of the FSAR. The proposed modification will not impact the operation of the GRRCCW system or any of the support systems.

II. No. This action involves only the replacement of tubes on the Unit 2 GRRCCW heat exchanger which will not impact the operation of the system or any support systems.

III. No. The action will not impact the operation of the GRRCW system nor any of the systems which the GRRCCW system is designed to support. This action therefore will not impact the operation of any system in the plant.

SER NO.: 89-040

CROSS REFERENCE: NL-89-008, PMR 87-9114
TP-102-006, 007, 008, 009

DESCRIPTION OF CHANGE:

Complete 125V DC Battery Bank replacements were performed on all channels during Unit 1 Fourth RIO. The proposed action is to perform a single "Enhanced Performance Test" that demonstrates both the battery's ability to deliver its rated capacity and supply the design basis load profile. The combined test will subject the battery to a dummy load profile that is verified greater than the design basis load profile. The combined test will also discharge the battery to demonstrate its ability to supply rated capacity.

SUMMARY:

I. No. The "Enhanced Performance Test" will adequately demonstrate that 125V DC Batteries have sufficient capacity to supply their required loads for four hours and are at least 80% of the manufacturer capacity rating.

II. No. The proposed "Enhanced Performance Test" adequately demonstrates the batteries ability to deliver its rated capacity and supply the design basis load profile. FSAR Section 8.3.2 was reviewed and this test does not create a possibility for an accident or malfunction of a different type than previously evaluated in the FSAR. The batteries will be tested to demonstrate sufficient capacity to power the actual battery loads thus enabling them to perform their intended design function.

III. No. The proposed Battery Bank replacements were accomplished to increase the overall capacity, reliability and performance of the 125V DC System. The proposed "Enhanced Performance Test" is in compliance with the Technical Specifications for demonstrating operability of the 125V DC Battery Banks. Performance of this single test meets the test criteria for both the Service Test and the Performance test. This test will adequately demonstrate the batteries ability to deliver it's rated capacity and supply the design basis load profile.

SER NO.: 89-041

CROSS REFERENCE: PMR 88-3036 A&B

DESCRIPTION OF CHANGE:

These modifications propose to replace the Unit 1 Turbine Generator Stator Cooler's 90/10 CuNi tube bundles with AL6XN stainless steel tubes and 316L stainless steel tube sheets. The current CuNi tubes are continually failing from silt and various corrosion products.

SUMMARY:

I. No. The Turbine Generator Stator coolers are non-safety related and do not affect the safety-related function of any equipment. The functional operation of the stator coolers will not be affected by these modifications which are intended to extend the service life of the stator coolers and lessen the likelihood of a turbine-generator trip due to stator cooler failure. A turbine-generator trip is the only occurrence as a result of stator cooler system failure. Occurrences from a result of a turbine-generator trip are evaluated in FSAR Section 15.3.1. The scenarios described in FSAR Section 15.3.1 will not change as a result of this modification.

II. No. Due to the increased resistance anticipated with the AL6XN replacement tube bundles, a Generator Stator cooler failure is less likely than with the original 90/10 CuNi tubes. If a failure of both stator coolers does occur, tripping of the turbine-generator would still occur. The scenario(s) that ultimately follow a turbine-generator trip are already evaluated in FSAR Section 15.3.1 and are unaffected by anything performed in this modification.

III. No. The intent of the proposed modification is to replace the CuNi stator cooler tubes with A16XN stainless steel tubes in an attempt to increase the service life reliability of the stator coolant system. Neither the stator coolers or their tube bundles affect the margin of safety in the basis for any Technical Specification or affect the function of any safety-related equipment.

SER NO.: 89-042

CROSS REFERENCE: PMR 88-3037 A&B

DESCRIPTION OF CHANGE:

These modifications propose to replace the Unit 2 Turbine Generator Stator Cooler's 90/10 CuNi tube bundles with AL6XN stainless steel tubes and 316L stainless steel tube sheets. The current CuNi tubes are continually failing from silt and various corrosion products.

SUMMARY:

I. No. The Turbine Generator Stator coolers are non-safety related and do not affect the safety-related function of any equipment. The functional operation of the stator coolers will not be affected by these modifications which are intended to extend the service life of the stator coolers and lessen the likelihood of a turbine-generator trip due to stator cooler failure. A turbine-generator trip is the only occurrence as a result of stator cooler system failure. Occurrences from a result of a turbine-generator trip are evaluated in FSAR Section 15.3.1. The scenarios described in FSAR Section 15.3.1 will not change as a result of this modification.

II. No. Due to the increased corrosion resistance anticipated with the AL6XN replacement tube bundles, a Generator Stator cooler failure is less likely than with the original 90/10 CuNi tubes. If a failure of both stator coolers does occur, tripping of the turbine-generator would still occur. The scenario(s) that ultimately follow a turbine-generator trip are already evaluated in FSAR Section 15.3.1 and are unaffected by anything performed in this modification.

III. No. The intent of the proposed modification is to replace the CuNi stator cooler tubes with AL6XN stainless steel tubes in an attempt to increase the service life reliability of the stator coolant system. Neither the stator coolers or their tube bundles affect the margin of safety in the basis for any Technical Specification or affect the function of any safety-related equipment.

SER NO.: 89-043

CROSS REFERENCE: NL-89-004 for TP-159-012

DESCRIPTION OF CHANGE:

This evaluation supports the performance of a test to identify reason for the failure of PSV-15704B2 to stroke in order to support an operability evaluation.

SUMMARY:

I. No. FSAR Section 6.2.1.1 discusses the design basis and provides a design evaluation for Pressure Suppression Containment, which includes the Containment Vacuum Breakers. Performance of this testing will not affect this evaluation.

II. No. This test only affects the isolated CIG piping used to test the vacuum breakers, which is not safety-related. This is bounded by the FSAR analysis.

III. No. This test allows only one vacuum breaker in a pair to be opened at a time thus meeting the basis for Technical Specification 3/4.6.4 that the Suppression Pool not be bypassed in case of an accident.

SER NO.: 89-044

CROSS REFERENCE: PMR 88-3018F, Rev. o

DESCRIPTION OF CHANGE:

This change provides valve HV-G33-2F004 with circuit isolation through a new isolation control valve transfer switch in the remote shutdown panel to isolate RWCU.

SUMMARY:

I. No. The proposed action to add isolation circuitry from the remote shutdown panel does not change the existing logic or function of the RWCU valve when controlled from the Control Room. The isolation circuitry does not prevent the valve from automatic closure on signals from the Reactor Coolant Pressure Boundary Leak Detection System or the Standby Liquid Control System as described in the FSAR Section 5.4.8.2.

II. No. The proposed action assures the RWCU valve will operate as described in FSAR Section 5.4.8.2 and does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. The Technical Specification requires in Section 3.8.4.2.1 that the thermal overload bypass of the valves be continuously bypassed for the valves to be operable. The proposed action does not affect the thermal overload bypass on the valve when controlled from the Control Room.

SER NO.: 89-045

CROSS REFERENCE: PMR 88-3021B, Rev. 0

DESCRIPTION OF CHANGE:

This change provides details, instructions and supporting calculations and analysis to install fire protection on various cable trays and wireways.

SUMMARY:

I. No. The addition of fire protection enclosures and assuring that the cable tray raceway structural and seismic requirements are met decreases the probability or consequence of an accident.

II. No. The only physical impact that this modification has on any equipment or components is the installation of fire protection enclosures on electrical cable trays. This modification does not interfere with the logic, control or operation of any plant systems or components.

III. No. The modification increases the scope of the visual inspections of the fire rated assemblies required by Technical Specification 3/4.7.7 but does not impact the periodic maintenance, calibration, or surveillance activities of the plant systems or components.

SER NO.: 89-046

CROSS REFERENCE: PMR 88-3058, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this change is to replace existing circulating water piping expansion joints 1XJ11550E/F and 1XJ11520A/B/C/D which have deteriorated.

SUMMARY:

I. No. The new expansion joints are designed to tolerate greater movements of the circulating water piping system and should have a longer service life. The replacement of the existing expansion joints, which have deteriorated, should decrease the probability of a major leak as described in FSAR Section 10.4.1.3.1.

II. No. This change replaces the existing circulating water piping expansion joints without altering the function, configuration or design basis of the circulating water system. Furthermore, the failure of the components installed by this modification will not affect the operation of any safety related components.

III. No. The expansion joints are not in the Technical Specifications and there are no technical specification requirements for the expansion joints.

SER NO.: 89-047

CROSS REFERENCE: PMR 88-3059, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this change is to replace the existing circulating water piping expansion joints 1XJ11550A/B/C/D which have deteriorated.

SUMMARY:

I. No. The new expansion joints are designed to tolerate greater movements of the circulating water piping system and should have a longer service life. The replacement of the existing expansion joints, which have deteriorated, should decrease the probability of a major leak as described in FSAR Section 10.4.1.3.1.

II. No. This change replaces the existing circulating water piping expansion joints without altering the function, configuration or design basis of the circulating water system. Furthermore, the failure of the components installed by this modification will not affect the operation of any safety related components.

III. No. The expansion joints are not in the Technical Specifications and there are no technical specification requirements for the expansion joints.

SER NO.: 89-048

CROSS REFERENCE: TP-245-013, Rev. 0

DESCRIPTION OF CHANGE:

This test applies to the backseating of the Feedwater Inlet Stop Check Valve to stop steam leakage past the packing.

SUMMARY:

I. No. The proposed action is within the design capability of the valve.

II. No. Violating the valve pressure boundary is highly unlikely but if a crack were to develop in the valve pressure boundary a LOCA condition would exist. This type of accident has been analyzed in FSAR Sections 6.3.1.1.25 and 6.2.4.3.2.2.

III. No. Technical Specification 3.6.1.1, 3.6.1.2 and 3.6.3 address the requirements for primary containment integrity and testing of containment isolation valves.

SER NO.: 89-049

CROSS REFERENCE: PMR 89-9069, Rev. 0

DESCRIPTION OF CHANGE:

This change installs a vibration monitoring system on each of the SSES Unit 2 Reactor Feedwater Pumps.

SUMMARY:

I. No. The vibration monitoring system has no input or functional attachment systems with accident scenarios described in the FSAR. The addition of the passive elements and monitors would not affect any described systems ability to mitigate any described/analyzed transient or accident.

II. No. The system addition is being made entirely in a facility and to equipment which are described in the FSAR as non-safety related and whose failure has been previously analyzed.

III. No. The proposed modification is passive and does not interact directly with the Trip System Actuation Instrumentation or any safety related logic.

SER NO.: 89-050

CROSS REFERENCE: PMR 89-9048, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs a new vibration monitoring system for the Reactor Recirculation Pumps.

SUMMARY:

I. No. The Reactor Recirculation Pump Vibration monitoring system is non-Q, non-1E, and does not perform any control functions. Any credible electrical failure of the system would not affect any safety system or the ability of any safety system to perform its safety function.

II. No. This modification replaces an existing system with a functionally equivalent system. The system boundaries are also physically equivalent. The failure modes of the new system would be the same as that for the present system and would in no way affect any safety related systems or components.

III. No. The system performs no safety functions and is isolated from equipment which performs safety related functions.

SER NO.: 89-051

CROSS REFERENCE: NL-89-040, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs a jumper across the pump low suction pressure switches to prevent tripping of the fuel pool cooling pumps on the low pressure condition.

SUMMARY:

I. No. The only event that can be postulated as a result of this bypass is that a fuel pool cooling pump does not trip under a sustained low suction pressure condition leading to prolonged pump cavitation and pump damage or failure. This pump failure mechanism is considered to be very unlikely, since there is a redundant pump trip on low skimmer surge tank level.

II. No. A failure of a fuel pool cooling pump as a result of this bypass would be no different than possible mechanical failures that exist at any time.

III. No. This bypass will not affect the integrity of the fuel pool cooling system, therefore will not affect fuel pool level or reactor cavity level when tied to the fuel pool.

SER NO.: 89-052

CROSS REFERENCE: NL-89-050, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation adds bypasses to defeat the zone I, II and III Cooling Coil automatic blowdown feature of Reactor Building Chilled Water.

SUMMARY:

I. No. Per FSAR Section 9.2.12.3, RBCW serves no safety related function. Containment isolation is not affected.

II. No. Per FSAR Sections 9.2.12.3 and 9.4.2, RBCW serves no safety related function. Containment isolation is not affected.

III. No. The portions of RBCW affected by this bypass are not covered by Technical Specifications.

SER NO.: 89-053

CROSS REFERENCE: PMR 89-9016, Rev. 0

DESCRIPTION OF CHANGE:

This change provides a new fill line and valve for the RBCW expansion tank. The new valve will permit viewing of the tank sight glass.

SUMMARY:

I. No. This affects only the non-safety portions of RBCW.

II. No. This affects only the non-safety portions of RBCW.

III. No. This portion of RBCW is not addressed in Technical Specifications.

SER NO.: 89-054

CROSS REFERENCE: PMR 89-3032, Rev. 0

DESCRIPTION OF CHANGE:

This modification replaces the cracked offgas recombiner condenser shell with one of a material resistant to IGSCC.

SUMMARY:

I. No. The design will be the same. The material will reduce the probability of cracking.

II. No. Except for material, no change is involved. The new material is more resistant to cracking.

III. No. The materials will not affect the system performance as discussed in the bases for Technical Specifications Section 3/4.11.2.

SER NO.: 89-055

CROSS REFERENCE: RE-OTP-057

DESCRIPTION OF CHANGE:

This procedure will be used to identify reactor core areas that contain leaking fuel assemblies.

SUMMARY:

I. No. This procedure does not require any abnormal equipment configurations. It assumes all systems required by Technical Specifications for insuring safety are operable. The consequences of an accident or malfunction of equipment related to safety will not be increased with respect to the FSAR (Chapter 15) by this procedure, since the FSAR assumes a much greater source term than can be obtained from leaking fuel rods.

II. No. Abnormal operations or equipment configurations are not required by this procedure. Technical Specifications and fuel preconditioning guidelines will be complied with at all times.

III. No. Technical Specifications compliance will be ensured during the performance of this procedure. This procedure will be performed at a reduced power level with adequate margins to the Technical Specification thermal limits and fuel preconditioning guidelines.

SER NO.: 89-056

CROSS REFERENCE: PMR 87-9195

DESCRIPTION OF CHANGE:

This change will replace the CRD pumps minimum flow bypass orifices with capillary tube pressure reducers. This change will add high pressure piping and a second isolation valve in each of the CRD pumps minimum flow bypass lines just downstream of the capillary tube pressure reducers.

SUMMARY:

I. No. The replacement of the existing flow orifices with a different type of a pressure reducing device and adding proper high/low pressure isolation does not alter the function of the CRDHS as described in Section 4.6.1.1.2.4 of the FSAR. The new pressure reducers have a lower erosion rate than the existing flow orifices and therefore the probability of a pipe break is reduced.

II. No. Replacing the existing CRD pumps minimum flow bypass orifices with capillary tube pressure reducers or adding proper high/low pressure isolation does not alter in any way the function and performance of the CRDHS. The modification is performed in non-safety related piping. The integrity of the system is enhanced by this modification.

III. No. The CRD pump minimum flow bypass lines are not safety related and their function is not the basis for any Technical Specifications. The proposed action does not affect any safety related system.

SER NO.: 89-057

CROSS REFERENCE: PMR 88-3017I, Rev. 0

DESCRIPTION OF CHANGE:

This change replaces cables EM1I9802G and EM1Q3066K with a single cable that bypasses the Remote Shutdown Panel (RSP) so that a fire at the RSP will not damage these cables and cause failure of RHRSW flow indicator. This change supports Appendix R analysis.

SUMMARY:

I. No. This modification does not change the operation of the RHRSW or the operator's interface with this system or any other safety-related system in the event of a fire in the RSP, the RHR system is capable of performing its safe shutdown functions from the control room as described in FSAR Section 7.4.

II. No. The changes made to the instrument loop result in a more efficient and simplified loop with fewer components, shorter cable lengths and less penetrations.

III. No. The isolation of the Division I RHRSW flow instrument loop from RSP does not reduce the margin of safety for operation of the RHRSW as defined in Technical Specification Basis 3/4.7.1..

SER NO.: 89-058

CROSS REFERENCE: NL-89-001

DESCRIPTION OF CHANGE:

This evaluation provides the guidelines to perform a Freon 113 cleaning of containment sample tubing which has become contaminated with oil.

SUMMARY:

I. No. The cleaning evolution will not change the design, operation or ability for the primary containment H2O2 monitoring system to perform its intended function as discussed in FSAR Section 6.2.5.

II. No. This evolution affects equipment down stream of the containment isolation valves only. The containment isolation valves are isolated from the activity and therefore containment isolation considerations are not affected. The cleaning of the panel and sample tubing will allow the analyzer to return to its normal operating mods.

III. No. The requirements for operability of the H2O2 analyzers are discussed in Technical Specification Section 3/4.3.7.5. In addition the H2O2 analyzers are used to meet the requirements of Section 3/4.6.6.3 drywell and suppression pool O2 concentration. The cleaning evolution will not affect any of the safety limits of limiting safety settings of equipment required for safety.

SER NO.: 89-059

CROSS REFERENCE: TP-008-015

DESCRIPTION OF CHANGE:

This test flushes and disinfects the well water system from the discharge of the storage tank thru the domestic water jockey pumps and to the secondary loads. Betz 35A is a liquid polyphosphate which will be used for the flush. Sodium Hypochlorite will be used to perform the disinfection.

SUMMARY:

I. No. Addition of the Betz 35A chemical to the U-2 Cooling Tower basin as a result of the flush will not have any adverse affects on the tower or any plant safety systems.

II. No. The concentrations of chemicals that may be exposed to plant systems are equal to or less than normal or daily levels found during chemical sampling. Any phosphate that may reach the condensate system will be removed via the condensate demin system.

III. No. The flush and disinfection does not reduce the margin of safety as defined in the Technical Specifications. Chemical concentrations are equal to or less than those normally found.

SER NO.: 89-060

CROSS REFERENCE: PMR 87-9147, Rev. 0

DESCRIPTION OF CHANGE:

This change corrects the condition where RPS busses 1Y201 A and B will not be available after the power transients associated with a design basis accident as discussed in FSAR Section 8.3.1.6.

SUMMARY:

I. No. The proposed action does not change input parameter or initial conditions for analyzed events as identified in FSAR Table 15.0-2 and does not adversely impact the Reactor Recirculating System or Primary Containment Isolation Control System. Implementation of proposed action will comply with FSAR Section 3.13.

II. No. The proposed modification enhances the system function. The availability of position indication for the reactor recirculation sample valves will increase due to provision of a reliable Class 1E power supply and use of qualified (Class 1E) position switches.

III. No. Isolation Actuation Instrumentation is addressed in Technical Specification, Section B3/4.3.2. The Reactor Recirculation System is addressed in Technical Specification, Section B3/4.4.1. However, the valves are not specifically discussed in the above Technical Specification sections. Primary Containment Isolation Valves are addressed in Technical Specification, Section B3/4.6.3 and the subject valves are listed in Table 3.6.3.-1. The function of these valves does not change due to the proposed modification and it complies with the requirements of the above mentioned Technical Specifications.

SER NO.: 89-061

CROSS REFERENCE: PMR 87-9163, Rev. 0

DESCRIPTION OF CHANGE:

This modification replaces the existing service water start-up strainers on the suction side of the condenser water circulating pumps with flushable strainers.

SUMMARY:

I. No. As discussed in FSAR Section 9.2.1, this service water piping modification is non-safety related, non-seismic and not required for safe shutdown of the plant.

II. No. The modification to replace the existing start-up strainers with flushable strainers does not alter the intended function of the service water system, as described in FSAR Section 9.2.1.

III. No. Technical Specifications do not include requirements for the service water system.

SER NO.: 89-062

CROSS REFERENCE: PMR 88-3026, Rev. 0

DESCRIPTION OF CHANGE:

This modification removes the recirculation valve's stem leakoff lines. These lines are capped an are no longer necessary.

SUMMARY:

I. No. Cutting the leakoff lines has no affect on the piping system or on the dynamic piping analysis.

II. No. Valve operability will not be adversely affected by this change since these lines performed no function.

III. No. See items I & II above.

SER NO.: 89-063

CROSS REFERENCE: PMR 86-9070, Rev. 0

DESCRIPTION OF CHANGE:

This change adds a permanent condenser waterbox pumpdown system so that the condenser waterboxes can be drained.

SUMMARY:

I. No. The new pumpdown system interfaces with the circulating water system both of which are non-Q and are not required for safe shutdown per FSAR Section 10.4.5 and 9.2.1.

II. No. The new pumpdown system is non-Q and only interfaces with non-Q systems. The new system does not alter or tie into safety-related systems.

III. No. This system does not affect systems having Technical Specification requirements.

SER NO.: 89-064

CROSS REFERENCE: PMR 87-9187, Rev. 0

DESCRIPTION OF CHANGE:

This modification separates the recombiner piping heat trace alarms and the recombiner vessel heat trace alarms from the system common heat trace trouble alarm and place them on independent annunciator windows.

SUMMARY:

I. No. FSAR Sections 11.3 "Gaseous Waste Management Systems" and 15.7.1 "Gaseous Radwaste System Leak or Failure" were reviewed and found not to be affected by the change.

II. No. See I above. Also, the reviewing of the heat trace trouble alarms will eliminate nuisance alarms in the control room and will prevent reflash alarms in the control room from masking other local alarms.

III. No. A review of the Unit 1 and 2 Technical Specifications and bases have been reviewed for the modification to the common recombiner heat trace trouble alarms. Specifically, Section 3/4.11.2 Gaseous Effluents, no effect was found as a result of the proposed design change.

SER NO.: 89-065

CROSS REFERENCE: PMR 88-3018G

DESCRIPTION OF CHANGE:

This change eliminates the remote manual control capability of the deluge sprinkler system from panel 2C650. Automatic actuation is unaffected. This ensures that a fire in the control room will not result in spurious operation of the HPCI and/or RCIC pump room deluge systems.

SUMMARY:

I. No. As per FSAR Section 9.5.1.2.24 and FPRR Sections 6.2.2.4 and 4.5, the HPCI and RCIC pump rooms are provided with automatic deluge systems. This modification does not affect the automatic deluge system operation and local manual operation at deluge valve panels is left unchanged. Only remote operation of the deluge systems from the plant control room is being eliminated.

II. No. The deluge systems for HPCI and RCIC could have an impact on safe shutdown (per 10CFR50, Appendix R). The immersion of the HPCI and RCIC skids could result in short circuits of the turbine controls resulting in system failure. A manual actuation switch for each of these deluge systems was in the control room. Therefore, a control room fire could have resulted in loss of HPCI and RCIC. In the event of a control room fire, the response is to abandon the control room and bring the plant to safe shutdown from the Remote Shutdown Panel. In this scenario, RCIC is a system required for safety shutdown. Therefore, implementation of this modification eliminates the possibility of this type of system malfunction.

III. No. This modification does not reduce the margin of safety since automatic operation of the deluge systems for the HPCI and RCIC rooms is not affected and the system can be manually operated from the local deluge valve panel.

SER NO.: 89-066

CROSS REFERENCE: PMR 88-3056, Rev. 0

DESCRIPTION OF CHANGE:

This change will make the modifications necessary to increase the height of doorway 227 from 7'-2" to 9'-10". The purpose of modifying the doorway is to allow access for routing of new circulating water expansion joints into the Turbine Building Condenser Bay Area.

SUMMARY:

I. No. The Turbine Building and the modifications performed to the building are considered non-safety related. The modifications to the service air line, the instrument air line tray and the unscheduled electric conduits are also considered non-safety related. These services have no safety related functions and do not contain or interface with any safety related equipment, systems, components or structures. All structural modification design will be in accordance with the AISC and ACI codes as per FSAR Table 3.2-1.

II. No. The only effect this modification will have on adjacent components is from a safety impact consideration. As there are no safety-related components located in the area of these modifications, there is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. The service air system has no safety related function and is not used in the basis for any Technical Specifications. Technical Specification Basis Section 3/4.7 (Plant systems) was reviewed to verify this. The valves and solenoid valves connected to the instrument air line tray being rerouted do not have a safety related function. The function of the Feedwater/Main Turbine Trip System Actuation Instrumentation described in Technical Specification 3/4.3.9 is not changed by this modification. The two unscheduled electrical conduits do not have a safety related function and are not used by any plant system.

SER NO.: 89-067

CROSS REFERENCE: PMR 88-3057, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides a monorail system above the circulating water outlet riser piping shield plugs. The purpose of the monorail system is to move the shield plugs, expansion joints and the outlet riser piping top blind flanges.

SUMMARY:

I. No. The monorail system is non-quality related. Safety impact has been evaluated and dispositioned as not being possible.

II. No. The monorail system will not cause a safety impact hazard. The sole purpose of the monorail system is to safely move shield plugs, expansion joints and outlet riser piping top blind flanges. The monorail system is designed adequately for this purpose.

III. No. The monorail system is considered a non-Q maintenance tool. The monorail system does not affect any other plant component or system. The monorail system does not adversely affect any systems or components as defined in the Technical Specifications.

SER NO.: 89-068

CROSS REFERENCE: PMR 88-9019, Rev. 0

DESCRIPTION OF CHANGE:

This change brings the installation of the annunciator alarm reflash modules associated with four ESS 480V load centers into conformance with separation criteria and eliminate any possibility of the non-class 1E reflash module faults disrupting class 1E circuits.

SUMMARY:

I. No. This change decreases the probability of occurrence of an accident or malfunction of safety related equipment by removing non-class 1E equipment fed directly off class 1E power supplies and providing isolated power supplies in compliance with the separation criteria as described in FSAR 8.1.6.1n5.

II. No. The operation and function of the annunciator alarm reflash modules remain the same, only their power supplies are being changed.

III. No. The 125V DC battery banks that provide the class 1E power to the reflash modules will also provide the non-class 1E power to the same modules thus keeping the current loads on each 125V DC battery bank constant and Technical Specifications uncompromised.

SER NO.: 89-069

CROSS REFERENCE: PMR 88-9033, Rev. 0

DESCRIPTION OF CHANGE:

The proposed action is to replace a total of 8 union connections at the Condensate Demineralizer Acid Pumps suction and discharge pipes with flange installations. The existing unions have experienced leakage during the Condensate Demineralizer Acid Pump operations.

SUMMARY:

I. No. The Condensate Demineralizer System is not addressed in the FSAR. The Condensate Demineralizer System does not perform any plant safety function, or interface with any systems or equipment related to safety. The proposed action for pipe fitting replacement does not alter the existing design bases of the Condensate Demineralizer System, and will actually improve the system reliability.

II. No. The proposed action does not alter the existing design bases of the Condensate Demineralizer System as well as any systems or components related to safety. The proposed action will only improve the system reliability by eliminating the leak paths via the union thread joints, and by providing proper flange and gasket materials.

III. No. The Condensate Demineralizer System is not addressed in the Technical Specification. The proposed action associated with the piping fitting replacements does not reduce the margin of safety as defined in the basis for any Technical Specification.

SER NO.: 89-070

CROSS REFERENCE: NL-89-049, Rev. 0
RG 1.97. Rev. 2

DESCRIPTION OF CHANGE:

This evaluation adds a correction factor to the Primary Containment High Range Rad Monitors to account for lower than assumed insulation resistance.

SUMMARY:

I. No. Using the correction factor provides the required accuracy and is in the conservative direction.

II. No. Using the correction factor will prove to be more conservative since higher levels of emergency may be declared.

III. No. The correction factor ensures that actions will meet or exceed those in the bases for Tech Specs 3/4.3.7.1.

SER NO.: 89-071

CROSS REFERENCE: PMR 89-9087, Rev. 0

DESCRIPTION OF CHANGE:

This modification is replacement of elbows and orifices on containment vacuum relief valves. Also, non-Q components will be upgraded.

SUMMARY:

I. No. Materials will be of equivalent or superior design. Some are non-Q and have no safety function.

II. No. This configuration has been analyzed in FSAR 6.2.1.1.3.

III. No. This modification is consistent with Technical Specification bases for 3/4.6.4.

SER NO.: 89-072

CROSS REFERENCE: Bypass to PMR 87-3044B

DESCRIPTION OF CHANGE:

This bypass will install a jumper across the points where the contact for the Recombiner Heat Trace Control Circuit will be installed during a future Unit 2 outage.

SUMMARY:

I. No. The control circuit to the Unit 2 Heat Trace serves no safety function. This bypass places the control circuit in the same configuration as that which existed prior to implementation of this modification.

II. No. The control circuit for the Recombiner Heat Trace is not addressed in the FSAR. The proposed bypass places the Heat Trace Control logic in a configuration equivalent to that which existed prior to implementation of the modification.

III. No. This modification is not related to Technical Specifications in any way.

SER NO.: 89-073

CROSS REFERENCE: PMR 89-9086, Rev. 0

DESCRIPTION OF CHANGE:

This modification replaces two 1-inch isolation valves on the containment instrument gas Nitrogen bottle charging connection/vent.

SUMMARY:

I. No. The replacement valves will be more reliable and made to same specifications.

II. No. This is a replacement by an equivalent valve.

III. No. This is consistent with Tech Specs Sections 3/4.5.1 and 3/4.5.2.

SER NO.: 89-074

CROSS REFERENCE: PMR 89-9081, Rev. 0

DESCRIPTION OF CHANGE:

This modification per SIL 480 reduces the severity of startup transient for HPCI.

SUMMARY:

I. No. This modification improves reliability of HPCI.

II. No. Loss of HPCI is analyzed in FSAR Sections 6.3.3.3 and 15.6.

III. No. This modification improves the reliability of HPCI.

SER NO.: 89-075

CROSS REFERENCE: PMR 88-3018D, Rev. 0
DCP 88-3018D

DESCRIPTION OF CHANGE:

This modification replaces Unit 2 125V DC breakers with new trip units as required by the Appendix R analysis.

SUMMARY:

I. No. The improved coordination of the 125V DC load center breakers with the DC distribution panel branch circuit breakers will insure that an electrical fault at the load side due to a fire or other causes can be isolated by the branch circuit breaker and would not affect safety shutdown loads supplied by the distribution panel. The improved coordination enhances the reliability of the DC power source and provides assurance that the operation of safe shutdown equipment will not be jeopardized in the event of a fire affecting an associated circuit.

II. No. The proposed action does not affect, change or interfere with the logic, control or operation of any plant system or equipment presently supplied by the DC load centers and distribution panels. The improved breaker coordination of protective devices ensures availability of power for safe shutdown equipment in the event of a fire-induced electrical fault by isolating the failed circuit at the DC distribution panels and providing backup protection at the load centers should the branch circuit breaker fail to operate.

III. No. The proposed modification is based on an evaluation of breaker characteristics using manufacturer's time-current curves and system short circuit studies. The recommended breaker trip device settings will be tested prior to putting the breakers in service to ensure that they will operate as specified. The proposed action will provide a highly reliable DC power supply system, ensure isolation of any electrical fault and minimize its effect on the rest of the DC system. The margin of safety as designed in the basis for any Technical Specification is increased by the improved electrical circuit protection provided for safe shutdown equipment.

SER NO.: 89-076

CROSS REFERENCE: PMR 87-9159, Rev. 1

DESCRIPTION OF CHANGE:

This modification will add a new charging connection for the Division I CIG N_2 Bottles to allow the bottles to be charged after a postulated LOCA event without exposing personnel to assumed high radiation.

SUMMARY:

I. No. The portion of the CIG N_2 system that is being modified and relocated is safety related per Section 3.2.2 of the FSAR. The new charging connection addition will ensure availability and operability of the system in the event of a LOCA and during post LOCA conditions by providing an accessible location for charging the CIG N_2 Bottles required for ADS operation. The existing charging connection will be maintained.

II. No. The portion of the CIG N_2 System being modified and the new section of line being added are safety related and will be designed to the applicable codes and standards as used in the original design and designated in the FSAR.

III. No. ECCS Surveillance requirements in Tech Spec Section 4.5.1.d.2.c requires channel calibration for the CIG low pressure alarm and to verify alarm setpoint of 2070 ± 35 psig on decreasing pressure. The new addition will not affect this requirement. The new addition will be designed and installed using the original requirements, codes and specifications to assure the system reliability and maintain its integrity.

SER NO.: 89-077

CROSS REFERENCE: PMR 88-3062A, Rev. 0
DCP 88-3062A

DESCRIPTION OF CHANGE:

This change replaces eroded Feed Pump turbine Steam System drain lines with a more corrosion resistant material. The piping to be removed is carbon steel ASTM A106 Grade B piping and will be replaced with ASTM A335 Grade P22 piping. The pipe O.D. and thickness will be replaced in kind and the insulation reused if possible. The existing pipe hangers are to be reused utilizing the present hanger settings.

SUMMARY:

I. No. PP&L reviewed the impact on the piping stress evaluation and concluded that the material change would have no impact on the piping stress evaluation since the geometry and weight are the same. Similarly the thermal expansion coefficient is the same for both materials. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe material.

II. No. The material change has no impact on the piping stress evaluation since the geometry, weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain lines.

III. No. The change in the piping material has no impact on drain line operation, therefore no change to system operation will occur. The change in material has no impact on the chemistry requirements for the systems discussed in the Technical Specifications, but would improve iron concentration levels in the feedwater thereby resulting in a reduction of radioactive 'crud'.

SER NO.: 89-078

CROSS REFERENCE: PMR 87-9230, Rev. 1

DESCRIPTION OF CHANGE:

This change will upgrade the maximum design of the high pressure portion of the CIG system to 2500 psig from the current 2200 psig. Pneumatic testing of piping shall be performed at a pressure of 3125 psig to meet the original testing requirements of ASME Section III, Subsection ND-6000.

SUMMARY:

I. No. The purpose of this upgrade is to reset relief valve to 2500 psig to prevent unnecessary N2 released caused by the relief valve being set too close to the normal operating pressure of 2200 psig. N2 bottled gas will still be supplied to system at 2200 psig with no intent of higher supply pressures. The original safety relief valve design setting of 2500 psig will not be exceeded; system operating conditions will remain unchanged; and system components have been fully analyzed and evaluated at the higher pressures of 2500 psig in accordance with ASME Section III for this safety related, Class 3 system.

II. No. The portion of the CIG N2 system being upgraded will be designed to the applicable codes and standards for ASME Section XI modifications which does not conflict with the original design intent and as stated in the FSAR. Operating conditions will remain the same as per FSAR Section 9.3.1.5.1.

III. No. ECCS Surveillance requirements in Technical Specification Section 4.5.1.d.2.c requires channel calibration for the CIG low pressure alarm and to verify alarm set point of 2070 ± 35 psig on decreasing pressure. This modification will help prevent this Technical Specification alarm from being tripped. There is no stated LCO except for the Containment Isolation Valves which are not involved in this proposed modification.

SER NO.: 89-079

CROSS REFERENCE: PMR 87-3043, Rev. 1

DESCRIPTION OF CHANGE:

This change proposes to replace the Unit #1 recombiner vessel with a new vessel designed with an upgraded material, improved heat tracing, and other system improvements. A drain line with double isolation valves is also being added to the vessel outlet pipe to facilitate draining of the vessel for maintenance and startup. The heating system for the vessel is also being upgraded to provide a more uniform heat distribution around the vessel. The heating system is a non-1E system from the power supply to the recombiner vessel so that no safety concern exists regarding the heating system.

SUMMARY:

I. No. Section 15.7.1 of the FSAR evaluates a failure of the Offgas System due to a system boundary rupture. The vessel replacement, drain addition and heating system redesign covered by this change will reduce the susceptibility of the vessel to cracking, improve the system's resistance to failure, and hence decrease the probability of system failure.

II. No. Section 15.7.2 of the FSAR evaluates the consequences of breach of the Offgas System as a result of several different initiating events, the most probable being a seismic event. The improvement in the vessel material to reduce its susceptibility to cracking, use of new catalyst, and the improved design of the heating system reduces the probability of vessel failure from an event not previously evaluated in the FSAR.

III. No. The modification will not affect any of the system performance requirements concerning radioactive effluent and explosive mixtures discussed in the bases for Technical Specification Section 3/4.11.2. The new vessel will perform in exactly the same manner as the current vessel in meeting the Technical Specification requirements. The change to an upgraded material for the vessel, use of new catalyst, and redesign of the heating system will reduce the susceptibility to vessel cracking, which will increase the margin of safety over the current design. The operation of the Heat Trace System does not affect any equipment in the Technical Specifications.

SER NO.: 89-080

CROSS REFERENCE: NV-20603B, WA-V93149

DESCRIPTION OF CHANGE:

This safety evaluation applies to the act of hydraulically cracking the Unit 2, B Reactor Feed Pump Discharge Isolation Valve off its seat. The valve is an 18 inch Walworth wedge gate valve that is stuck in its seat.

SUMMARY:

I. No. If the valve pressure boundary were breached, such as stem breakage, the consequences of the resulting leak are bounded by FSAR Section 6.2.4.3.2.1. Evaluation against General Design Criteria 55 (Feedwater Line) which states that nonslam check valves (HV-F032A/B) are installed in the feed water lines which ensure the prevention of a significant loss of reactor coolant inventory and offer immediate isolation if a break occurs in the feedwater line.

II. No. FSAR Section 6.2.4.3.2.1 states that nonslam check valves were installed to prevent a significant loss of reactor coolant inventory and immediate isolation if a break occurs in the feedwater line. But the Feed System is expected to provide a water seal (FSAR Section 6.2.3.2.3.1, Water Seals) to prevent a bypass leakage path for reactor coolant to areas not serviced by the Standby Gas Treatment system. Leakage resulting from a broken stem is bounded by Section 6.2.3.2.3.1.5.c, which assumes a simultaneous large feedwater line rupture, loss of off site power, and a very large degree of core damage. It concludes that in an event with a large feedwater pipe rupture, the water seal could be restored in an acceptable time.

III. No. The valve is not within the primary containment boundary and does not effect Primary Containment Integrity or Primary Containment Leakage as described in Technical Specifications 3.6.1.1 and 3.6.2.

SER NO.: 89-081

CROSS REFERENCE: NL-89-007, WA-S90352, Bypass 1-89-009

DESCRIPTION OF CHANGE:

To eliminate vacuum breaker nuisance alarms, two states links are to be opened which defeats the vacuum breaker "open" alarm input from the valve. Opening the links will remove the high resistance circuit from the annunciator power supply, allowing the alarm to clear and be functional for the other valve in the division not already bypassed.

SUMMARY:

I. No. Defeating the alarm for an open vacuum breaker does not inhibit the valves from performing their safety function. Vacuum breaker positions are verified twice per shift via Operations' Turnover Sheets and, per Technical Specifications every seven days. This would ensure that no two in series valves are open which would create a direct path between the drywell and wetwell.

II. No. Defeating the input to the alarm from the D2 vacuum breaker does not affect the safety function or operability of the valve as discussed in Section 6.2 of the FSAR. The annunciator does not provide a safety related function, and its absence does not create any possibilities for accidents or malfunctions.

III. No. The existing annunciator problem (alarm in) does not affect vacuum breaker operability. Vacuum breakers are closed and operable as required by Technical Specification 3.6.3. Defeating the input from the D2 vacuum breaker to the annunciator does not affect the operability of the vacuum breaker.

SER NO.: 89-082

CROSS REFERENCE: NL-89-039, Rev. 0

DESCRIPTION OF CHANGE:

This modification places the channels with the largest inside envelope on the bundles with the oversized spacers.

SUMMARY:

I. No. The proposed action maintains a spacer to channel gap which will allow the channel to be safety placed over the bundle.

II. No. Because there is a gap between the spacer and the channel, the designed minimum space between the channel and the peripheral rods will not be altered during channeling. Therefore, the bundle can be safety channeled and no new operational failure modes are created.

III. No. Because the bundle is designed with the capability of having the spacer against the channel, the reduced spacing will not alter the design minimum flow distribution and power peaking around the peripheral rods.

SER NO.: 89-083

CROSS REFERENCE: PMR 87-3022, Rev. 0, SER 87-3022

DESCRIPTION OF CHANGE:

This change implements control room changes to incorporate the rearrangement of the 500Kv switchyard including modifications to the switchyard. Switchyard changes include a new 500Kv synchronizing circuit breaker, moving the Unit 2 Generator leads from Bay 2 to Bay 3 and the addition of a 230Kv circuit breaker on the low side of auto transformer T-21. Control room changes are visual displays and relabeling.

SUMMARY:

I. No. The proposed action does not affect the plant electrical system which provides normal and emergency AC power to reactor protection and engineered safety feature equipment. The modification to the 500Kv switchyard will provide increased protection and minimize unnecessary trips caused by circuit breaker failure. Control room modifications provide operator information only. Failure of the new synchronizing circuit breaker will only impact the operators ability to synchronize the Unit 2 generator to the transmission system.

II. No. Failure of the new synchronizing configuration will not create the potential for any accident condition.

III. No. The margin of safety of the plant's electrical system to perform its design basis function is not reduced. The synchronizing operation of the 500Kv switchyard does not affect the plant electrical system.

SER NO.: 89-084

CROSS REFERENCE: PMR 89-3001, SER 89-3001

DESCRIPTION OF CHANGE:

This change modifies the main steam isolation valve packing which replaces the existing asbestos packing with square graphite, replaces the existing ring with a spacer/adaptor and the existing gland with a square bottomed gland. The existing leak off connections will be capped and leak off valves and piping removed. The change will result in reduced valve stem friction which is necessary to resolve concerns with valve closure in accidental conditions.

SUMMARY:

I. No. The changeover to graphite packing will increase the reliability of the stem seals and thereby reduce stuffing box leakage. Improved operability of the valve will be achieved by reducing the stuffing box friction load.

II. No. The installation of graphite packing will increase the effectiveness of valve stem seals in the MSIV's and will improve their operability by reducing stem friction.

III. No. The modification does not directly impact the margin of safety as defined in the basis for any Technical Specification. Indirectly the action will reduce the potential contribution of MSIV stem seal leakage to drywell leakage and improve the ability of the MSIV's to isolate within their specified time.

SER NO.: 89-085

CROSS REFERENCE: TP-173-014

DESCRIPTION OF CHANGE:

This change flushes the hydrogen/oxygen analyzer and containment radiation monitor piping to remove residual oil introduced by the CRM pump. Flushing will use Isopropyl/Alcohol rather than Freon which was previously used.

SUMMARY:

I. No. The chemical used (isopropyl/alcohol) is compatible with the elastomers in the system. Flammability of the chemical will be contained using existing fire safety requirements and controlling the flush path.

II. No. The flammable flushing chemical which will be utilized, is an approved chemical and will be handled per SAMM requirements.

III. No. The flush will only be performed during refueling. This condition does not require the Containment Atmosphere Control System to be operational.

SER NO.: 89-086

CROSS REFERENCE: SER 89-3010, PMR 89-3010

DESCRIPTION OF CHANGE:

This change evaluates horizontal weld repair to Unit 2 steam dryer drain channel to repair a crack using underwater welding techniques.

SUMMARY:

I. No. The proposed action is a repair which will lessen the potential for loose parts generated from the cracked drain channel.

II. No. The steam dryer is a non-code, non-safety related component. The action has no effect on the dryers structural performance.

III. No. The steam dryer is not addressed in the Technical Specifications.

SER NO.: 89-087

CROSS REFERENCE: NL-89-027

DESCRIPTION OF CHANGE:

This change evaluates a system bypass to provide the means to cross-tie the instrument air (I-A) system to the 90 Containment Instrument Gas (CIG) system if required. The 90# CIG header supplies all gas-operated valves with the exception of the ADS valves. The bypass is to be used for emergencies caused by the loss of the containment instrument gas normal supply.

SUMMARY:

I. No. Loss of containment instrument gas is an analyzed event. The bypass failure will not cause loss of instrument air and the I-A system will not be affected by the potential resulting leakage from a failure. The bypass failure will also not increase the effects of a failure of both CIG compressors.

II. No. The bypass will be on the non-safety related portion of the CIG system. The safety related portion of CIG will be unaffected by this action. The instrument air system is non-safety related.

III. No. The 90# CIG header does not serve any safety function. This bypass will provide a back up supply of compressed gas to all gas operated inboard containment isolation valves enabling them to maintain operability per Technical Specification 3.4.7.

SER NO.: 89-088

CROSS REFERENCE: PMR 86-9071

DESCRIPTION OF CHANGE:

This modification adds a permanent condenser waterbox pumpdown drain system to enable inspection of condenser tubes and plug if necessary.

SUMMARY:

I. No. The new pumpdown system will interface with the circulating water system and the service water system both of which are non-safety related.

II. No. The pumpdown system does not alter or tie into safety related systems.

III. No. This modification is non-safety related and does not affect systems having Technical Specification requirements.

SER NO.: 89-089

CROSS REFERENCE: PMR 87-9128

DESCRIPTION OF CHANGE:

This change includes changeout and capacity upgrade of the Units 125V DC battery banks as a result of degradation of existing battery post-to-cover seals and the battery capacity will be increased from 720 to 825 ampere-hours.

SUMMARY:

I. No. The one-for-one changeout of the 125V DC battery cells does not change the ability of the batteries to perform their function. The increase in capacity has no adverse effects and the new batteries are seismically qualified.

II. No. Increased short circuit current associated with the larger batteries was analyzed and found acceptable. Seismic response and an ability to satisfy load profile were found acceptable for the new batteries.

III. No. This upgrade will increase 125V DC battery capacity, increase reliability and allow greater design margin in satisfying Technical Specification requirements.

SER NO.: 89-090

CROSS REFERENCE: PMR 88-3058

DESCRIPTION OF CHANGE:

This change replaces existing circulating water piping expansion joints which have deteriorated. It also modifies fasteners, pipe supports, drain connectors, fire protection piping fittings, and adds vent valves to ease future replacements.

SUMMARY:

I. No. All modifications are non-safety related. The new expansion joints are designed to tolerate greater movement thus decreasing the probability of a major leak. Flooding from such a leak has been analyzed. Piping related modifications are in accordance with FSAR Table 3.1-1.

II. No. This modification does not change the intent or alter the operation of any safety related equipment. Failure of the components installed by this modification will not affect the operation of any safety related components.

III. No. The expansion joints are not in the Technical Specifications. Piping and pipe support modifications will not affect the operation of their associated systems.

SER NO.: 89-091

CROSS REFERENCE: PMR 88-3018L, Rev. 0

DESCRIPTION OF CHANGE:

This change modifies the Emergency Switchgear Room Refrigeration Units and circuitry in order to resolve cable hits and to ensure cooling system operation in the event of a fire.

SUMMARY:

I. No. The existing functions of the system and its ability to operate under normal and emergency conditions, other than an Appendix R fire, are not altered.

II. No. The proposed action does not alter the cooling systems ability to support the operation of the Emergency Switchgear.

III. No. The proposed action actually increases the margin of safety by ensuring that the cooling system will operate in the event of a fire.

SER NO.: 89-092

CROSS REFERENCE: PMR 89-9053 A and B, Rev. 0

DESCRIPTION OF CHANGE:

This change installs resilient seats on the valve disc and a manual test feature on the F032 valves to improve leak tightness at low differential pressure and LLRT repeatability.

SUMMARY:

I. No. The disc modification will not affect the valves containment integrity and the manual test feature will have no affect on the valve during plant operation.

II. No. The disc modification provides improved sealing and the test feature only affects the valve during maintenance activities.

III. No. The proposed action does not affect the ability of the subject valves to meet the containment isolation criteria defined in Technical Specification 3/4.6.3.

SER NO.: 89-093

CROSS REFERENCE: PMR 88-3042 A,B, Rev. 2

DESCRIPTION OF CHANGE:

This modification replaces the 90/10 Cu/Ni tubes in the RBCCW heat exchangers with AL-6XN tubes and replaces the existing carbon steel butterfly valves (used in RBCCW heat exchanger isolation) with stainless butterfly valves.

SUMMARY:

I. No. The proposed modification will not impact the operation of the RBCCW system or any of the support systems.

II. No. This modification involves the replacement of tubes on the RBCCW heat exchangers and replacement of the heat exchanger isolation valves. The modification will not impact the operation of the system or any support systems.

III. No. The modification will not impact the operation of the RBCCW system nor any of the system which the RBCCW system is designed to support. This modification therefore will not impact the operation of any system in the plant.

SER NO.: 89-094

CROSS REFERENCE: NL-89-038, Rev. 0

DESCRIPTION OF CHANGE:

This modification is to replace eroded ANSI B13.1 pipe lines with a more corrosion resistant material.

SUMMARY:

I. No. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four with no changes in geometry, weight, stresses or thermal expansion. Replacement of any of the ANSI B31.1 carbon steel ASTM A106 Gr B piping in the systems listed above with a more corrosion resistant material has no safety impact on the plant.

II. No. The applicable FSAR Sections 6.2.1.1.3.3.5, 15.1.1, 15.2.5, 15.6.4, 15.6.6, 15.7.1.3, 15.7.1.2 and 15.7.2 remain unchanged.

III. No. The change in the piping material has no impact on pipe line operation, since inside diameters and lengths are both unchanged, therefore no change to system operation will occur. Since the Technical Specifications relate only to system operability, the proposed change will have no impact on the Technical Specifications, or margins of safety defined in their bases.

SER NO.: 89-095

CROSS REFERENCE: SCP-J89-1046, Rev. 0

DESCRIPTION OF CHANGE:

This change raises the setpoint for the instrument air compressor discharge air high temperature trip.

SUMMARY:

I. No. The instrument air system has no safety-related function. Higher air temperatures are consistent with the compressor design and will not impact or affect components served by instrument air.

II. No. The instrument air system is not safety-related per FSAR Section 9.3.1.1.

III. No. Instrument air is not addressed in the bases for any Technical Specifications.

SER NO.: 89-096

CROSS REFERENCE: SCP-J89-1047, Rev. 0

DESCRIPTION OF CHANGE:

This change raises the setpoint for the instrument air compressor discharge air high temperature trip.

SUMMARY:

I. No. The instrument air system has no safety-related function. Higher air temperatures are consistent with the compressor design and will not impact or affect components served by instrument air.

II. No. The instrument air system is not safety-related per FSAR Section 9.3.1.1.

III. No. Instrument air is not addressed in the bases for any Technical Specifications.

SER NO.: 89-097

CROSS REFERENCE: NL-89-036

DESCRIPTION OF CHANGE:

This change installs a two second time delay in the NS^4 logic for the reactor high pressure and shutdown cooling high flow isolations of the 2F008 and 2F009 valves. This will allow the SDC portion of RHR to "ride through" hydraulic transients caused by starting and swapping pumps.

SUMMARY:

I. No. FSAR Sections 5.4, 7.4, 7.6 and Chapter 15 (Event 18) were reviewed and it was determined the modification did not alter consequences of any accident or malfunction previously evaluated.

II. No. After review of the FSAR, it was concluded the proposed bypass does not create a new accident or malfunction related to other systems outside of the RHR system that has not been previously evaluated in the FSAR.

III. No. Technical Specification Sections 3/4.2, 3/4.5 and 3/4.9 and the bases for these sections were reviewed for impact and none was found. Additionally, setpoints contained in Table 3.3.2-2 were not altered.

SER NO.: 89-098

CROSS REFERENCE: PMR 88-9026

DESCRIPTION OF CHANGE:

This modification remounts containment isolation valve limit switches to correct environmental qualification concerns and replaces six limit switches with an upgraded model.

SUMMARY:

I. No. This modification only modifies the mounting configuration and replaces standard travel switches with short travel switches. The modification does not affect the controls and isolation signals for the valves as discussed in FSAR Section 6.2.4. Failure of the indication of these valves is not specifically addressed in FSAR Chapter 15. The design basis discussed in FSAR Section 7.1.2a.1.2 is not affected by this modification.

II. No. The proposed modification corrects the existing mounting configuration of the switches by providing a dynamically qualified method of mounting the switch without degrading their environmental qualification. The shorter travel switches will be an enhancement to the existing switches since they reduce the chances of a dual indication problem.

III. No. Primary containment isolation valves are discussed in the basis for Technical Specification 3/4.6.3 and the isolation actuation setpoints are discussed in Table 3.3.2-2. The isolation valves that are discussed in these sections are unaffected by this modification. Similarly, the operability of the systems of the isolation valves (Recirc. Sample, RCIC, RHR, Core Spray, HPCI and Reactor Building Chilled Water) are unaffected. The Technical Specification Limiting Conditions for Operation are not applicable during refueling when this modification is to be performed.

SER NO.: 89-099

CROSS REFERENCE: PMR 88-9020, Rev. 0

DESCRIPTION OF CHANGE:

This modification corrects the design of four alarm reflash circuits which do not meet separation requirements.

SUMMARY:

I. No. This modification re-establishes required electrical separation as specified in FSAR Section 8.1.6.1q5.

II. No. This modification re-establishes the design requirements as specified in FSAR Section 8.1.6.1q5.

III. No. By providing proper electrical separation, the margin of safety is improved.

SER NO.: 89-100

CROSS REFERENCE: PMR 89-9070, Rev. 1

DESCRIPTION OF CHANGE:

This change modifies mounting of the tachometer for diesel starts to provide better noise isolation in order to prevent spurious diesel trips.

SUMMARY:

I. No. The tachometer is not part of the safety-related circuits for the diesels and will not affect the diesels during emergency starts.

II. No. The new mounting has no adverse affect. All it does is provide better noise isolation for the tachometer.

III. No. The mounting for the tachometers are not covered by Technical Specifications.

SER NO.: 89-101

CROSS REFERENCE: PMR 89-9096, Rev. 0

DESCRIPTION OF CHANGE:

This change replaces the galled vent valves on RWCU.

SUMMARY:

I. No. The vent valves are not included in the scope of the FSAR. The new valves will be of similar design.

II. No. The function and design of the new valves is equivalent.

III. No. The vent valves are not addressed in the Technical Specifications.

SER NO.: 89-102

CROSS REFERENCE: PMR 88-3067 A&B, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs additional parallel dryer skid for instrument air.

SUMMARY:

I. No. Instrument air is non-safety related. This modification will improve its reliability improving the air quality.

II. No. No new failure mechanisms for safety-related components can occur. FSAR Section 9.3.11 states that all safety-related components using instrument air will fail safe on loss of air.

III. No. Instrument air is not covered by Technical Specifications.

SER NO.: 89-103

CROSS REFERENCE: PMR 89-9047 A&B, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs new vibration monitoring equipment on the reactor recirc pumps.

SUMMARY:

I. No. The monitors provide no control functions. The new design will be more reliable.

II. No. The new design is functionally equivalent to the old vibration monitors.

III. No. The recirc pump vibration monitors are not addressed in the Technical Specifications.

SER NO.: 89-104

CROSS REFERENCE: SCP-J89-1044, Rev. 0

DESCRIPTION OF CHANGE:

This change lowers the pressure setpoint of the Isophase bus duct cooling coil to eliminate a nuisance alarm.

SUMMARY:

I. No. The isophase bus duct cooling system has no impact on safety-related equipment.

II. No. The new setpoint will eliminate a nuisance alarm, providing better reliability.

III. No. The isophase bus ducts are not addressed in the Technical Specifications.

SER NO.: 89-105

CROSS REFERENCE: NL-89-62, Rev. 0

DESCRIPTION OF CHANGE:

This Administrative Procedure changes the format and organization of the procedures which implement the SSES Emergency Plan. These procedures are described in the FSAR therefore a Safety Evaluation is required.

SUMMARY:

I. No. Equipment, systems, or operator actions are not affected by this change.

II. No. Plant equipment, systems, and operator responses are not affected by this change.

III. No. Plant equipment, systems, and operator responses are not affected by this change.

SER NO.: 89-106

CROSS REFERENCE: PMR 89-9079, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a fill valve close to the GRRCCW head tank, in view of the sight glass level indicator. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.4.1 of the FSAR deals specifically with the Gaseous Radwaste Closed Cooling Water (GRRCCW) System. The operation of the GRRCCW has no safety related function and is a closed loop cooling system that transfers heat from the gaseous radwaste recombiner condenser condensate cooler, and motive steam jet condenser to the service water system through the GRRCCW heat exchanger. The addition of a 1" demineralized water fill line has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the GRRCCW System as it exists. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease. The installation of all work relating to the modification shall be done in accordance with the required site approved procedures, along with the national codes and standards. A failure of any portion of this modification will have no effect on any safety related system.

III. No. The Technical Specifications have been reviewed and the GRRCCW and Demineralized Water system are not specifically addressed. No functional changes to either system will be made by this modification. This modification only provides the required piping to a new demineralized water fill valve.

SER NO.: 89-107

CROSS REFERENCE: PMR 89-9074, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a fill valve close to the GRRCCW head tank, in view of the sight glass level indicator. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.4.1 of the FSAR deals specifically with the Gaseous Radwaste Closed Cooling Water (GRRCCW) System. The operation of the GRRCCW has no safety related function and is a closed loop cooling system that transfers heat from the gaseous radwaste recombiner condenser condensate cooler, and motive steam jet condenser to the service water system through the GRRCCW heat exchanger. The addition of a 1" demineralized water fill line has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the GRRCCW System as it exists. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease. The installation of all work relating to the modification shall be done in accordance with the required site approved procedures, along with the national codes and standards. A failure of any portion of this modification will have no effect on any safety related system.

III. No. The Technical Specifications have been reviewed and the GRRCCW and Demineralized Water system are not specifically addressed. No functional changes to either system will be made by this modification. This modification only provides the required piping to a new demineralized water fill valve.

SER NO.: 89-108

CROSS REFERENCE: 89-9090, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a fill valve close to the GRRCCW head tank, in view of the sight glass level indicator. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.4.1 of the FSAR deal specifically with the Gaseous Radwaste Recombiner Closed Cooling Water (GRRCCW) System. The operation of the GRRCCW has no safety related function and is a closed loop cooling system that transfers heat from the gaseous radwaste recombiner condenser condensate cooler, and motive steam jet condenser to the service water system through the GRRCCW heat exchanger. The addition of a 1" demineralized water fill line has no function related to safety.

II. No. The Demineralized Water system is the required source of make-up water for the GRRCCW System as it exists. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease. The installation of all work relating to the modification shall be done in accordance with the required site approved procedures, along with the national codes and standards. A failure of any portion of this modification will have no effect on any safety related system.

III. No. The Technical Specifications have been reviewed and the GRRCCW and Demineralized Water system are not specifically addressed. No functional changes to either system will be made by this modification. This modification only provides the required piping to a new demineralized water fill valve.

SER NO.: 89-109

CROSS REFERENCE: Bypass 0-89-037

DESCRIPTION OF CHANGE:

The purpose of this bypass is to supply domestic water to the seal water lines for the circulating and service water pumps to support modification work.

SUMMARY:

I. No. FSAR Section 9.2.8.2 states that the clarified water pumps supply seal water to the service water and circ water pumps. This bypass will temporarily change this flow path for no more than 24 hours. This bypass will supply seal water at a higher pressure than the normal supply and the pressure loss through this bypass will be less than 10 psi. The domestic water system can easily accommodate the additional load.

II. No. This bypass does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. Domestic water and clarified water are not addressed in Technical Specifications.

SER NO.: 89-110

CROSS REFERENCE: PMR 88-3062F

DESCRIPTION OF CHANGE:

This modification replaces the eroded off-gas recombiner system steam supply drain lines with ones made of more corrosion resistant material.

SUMMARY:

I. No. The piping included in this proposed action was designed in accordance with ANSI B31.1. The impact on the piping stress was evaluated and it was concluded that the material change would have no impact on the piping stress evaluation since the geometry and weight are the same. Similarly the thermal expansion coefficient is the same for both materials. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe material. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four.

II. No. The material change has no impact on the piping stress evaluation since the geometry, weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain lines.

III. No. The change in the piping material has no impact on drain line operation, therefore no change to system operation will occur. The change in material has no impact on the chemistry requirements for the systems but would improve iron concentration levels in the feedwater thereby resulting in a reduction of radioactive 'crud'.

SER NO.: 89-111

CROSS REFERENCE: PMR 88-3062E

DESCRIPTION OF CHANGE:

This modification replaces the eroded main steam drain lines with ones made of more corrosion resistant material.

SUMMARY:

I. No. The piping included in this proposed action was designed in accordance with ANSI B31.1. The Main Steam System has no safety related function. FSAR Sections 10.3.2 and 10.3.6.2 will be revised to include low alloy steel piping in the Main Steam System. The impact on the piping stress has been evaluated and it was concluded that the material change would have no impact on the piping stress evaluation since the geometry and weight are the same. Similarly the thermal expansion coefficient is the same for both materials. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe materials. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four.

II. No. The material change has no impact on the piping stress evaluation since the geometry, weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain lines.

III. No. The change in the piping material has no impact on drain line operation, therefore no change to system operation will occur. The change in material has no impact on the chemistry requirements for the systems but would improve iron concentration levels in the feedwater resulting in a reduction of radioactive 'crud'.

SER NO.: 89-112

CROSS REFERENCE: PMR 88-3062D

DESCRIPTION OF CHANGE:

This change replaces the eroded main steam drain lines with ones made of more corrosion resistant material.

SUMMARY:

I. No. The piping included in this proposed action was designed in accordance with ANSI B31.1. The Main Steam System has no safety related function. FSAR Sections 10.3.2 and 10.3.6.2 will be revised to include low alloy steel piping in the Main Steam System. The impact on the piping stress was evaluated and it was concluded that the material change would have no impact on the piping stress evaluation since the geometry and weight are the same. Similarly the thermal expansion coefficient is the same for both material. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe materials. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four.

II. No. The material change has no impact on the piping stress evaluation since the geometry, weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain lines.

III. No. The change in the piping material has no impact on drain line operation, therefore no change to system operation will occur. The change in material has no impact on the chemistry requirements for the systems but would improve iron concentration levels in the feedwater thereby resulting in a reduction of radioactive 'crud'.

SER NO.: 89-113

CROSS REFERENCE: PMR 88-3062C

DESCRIPTION OF CHANGE:

This change replaces the eroded sealing steam drain and vent lines with ones made of more corrosion resistant material.

SUMMARY:

I. No. The piping included in this proposed action was designed in accordance with ANSI B31.1 Power Piping Code. The Sealing Steam System has no safety related function. FSAR Section 10.4.3.1 will be revised to include low alloy steel piping in the sealing steam system. The impact on the piping stress was evaluated and it was concluded that the material change would have no impact on the piping stress evaluation since the geometry and weight are the same. Similarly the thermal expansion coefficient is the same for both materials. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe material. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four.

II. No. The material change has no impact on the piping stress evaluation since the geometry weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain and vent lines.

III. No. The change in the piping material has no impact on drain and vent line operation, therefore no change to system operation will occur. The change in material has no impact on the chemistry requirements for the systems but would improve iron concentration levels in the feedwater thereby resulting in a reduction of radioactive 'crud'.

SER NO.: 89-114

CROSS REFERENCE: PMR 88-3062B

DESCRIPTION OF CHANGE:

This change replaces the eroded condenser air removal system steam supply drain lines with lines made of more corrosion resistant material.

SUMMARY:

I. No. The piping included in this proposed action was designed in accordance with ANSI B31.1. The Condenser Air Removal Steam System has no safety related function. The material change will have no impact on the piping stress evaluation as the geometry and weight remain the same. Similarly the thermal expansion coefficient is the same for both materials. Therefore, the replacement pipe will expand and contract at the same rate as the existing pipe material. By replacing the thinned pipe with a more erosion/corrosion resistant material, the rate of wall thinning will be reduced by at least a factor of four.

II. No. The material change has no impact on the piping stress evaluation since the geometry, weight and thermal expansion coefficient are the same. There has been no change which affects the piping integrity or changes the operation of the drain lines.

III. No. The change in the piping material has no impact on drain line operation, therefore no change to system operation will occur. The change in material also has no impact on the chemistry requirements for the systems but would improve iron concentration levels in the feedwater thereby resulting in a reduction of radioactive 'crud'.

SER NO.: 89-115

CROSS REFERENCE: PMR 87-7018

DESCRIPTION OF CHANGE:

This modification converts the oil analysis laboratory in the Circulatory Water Pumphouse into an auxiliary shift operators office and constructs a new oil analysis laboratory.

SUMMARY:

I. No. All installation activities will be performed in the Circulating Water Pumphouse and Water Treatment Building and will involve the installation of non-Q and non-safety related structures, equipment, piping, conduit and unscheduled/scheduled cable for the Oil Analysis Laboratory. All work shall be accomplished in accordance with approved engineering procedures and drawings to insure compliance with applicable design inputs, codes and considerations. The installation will not impose a functional concern to any system used to mitigate transients or accidents described/analyzed in Chapter 15 of the FSAR.

II. No. Based upon a review of all pertinent sections of the FSAR, it is concluded that all modifications made have no effect on the design function of the system. Also, the subject modifications are in compliance with all governing design codes, technical specs and all pertinent section of the FSAR and the original design criteria of the plant.

III. No. Unit 1 and Unit 2 Technical Specifications have been reviewed and no effects were found as a result of the proposed design change.

SER NO.: 89-116

CROSS REFERENCE: PMR 88-9037

DESCRIPTION OF CHANGE:

This change modifies the reactor cavity seals on Unit 2.

SUMMARY:

I. No. In the unlikely event of the reactor cavity seal failure that allows the pool water to drain via the open gate between the fuel pool and the reactor well, the minimum pool level, i.e. the fuel transfer channel sill elevation, is still above the top of fuel assembly and provides assurance of water coverage at all times. FSAR Appendix 9A discusses only the loss of fuel pool cooling and subsequent boiling in the pool. The proposed action will not affect this analysis. In addition, the Instrument Air System which supplies the air for the Reactor Cavity Seals is a non-Quality, non-seismic system and has no safety-related function. This modification will actually improve the reliability of the Instrument Air Supply to the Rector Cavity Seals and subsequently will serve to decrease the probability of their failure.

II. No. The potential for and consequence of a Reactor Cavity Seal failure were previously evaluated. The evaluation concluded that gross leakage of reactor cavity and spent fuel pool water should not result due to the seal failure. The FSAR does not specifically address Reactor Cavity seal ring failure. The potential for and consequence of fuel pool drainage have been also previously evaluated and it was concluded that even if the pool level was allowed to fall to the minimum level, the top of active fuel in the pool would still be submerged. The proposed action will actually improve the seal hose connection as well as the reliability of the hose and the seal.

III. No. Technical Specifications do not specifically address requirements for the reactor cavity seals or the instrument air system which supplies air to the seals. The proposed action will improve the seal hose connection as well as the reliability of the hose and seal.

SER NO.: 89-117

CROSS REFERENCE: PMR 86-9071

DESCRIPTION OF CHANGE:

This modification adds a permanent condenser waterbox pumpdown system on Unit 2.

SUMMARY:

I. No. The new pumpdown system interfaces with the circulating water system and the service water system, both of which are non Q systems and not required for the safe shutdown of the plant. Flooding in the condenser bay area due to a failure of the new waterbox pumpdown piping has been evaluated and has been determined to be enveloped by a circulating water expansion joint rupture. This modification does not jeopardize the function of or alter the operation of any safety related equipment.

II. No. This modification is non-Q and only interfaces with non-Q systems. The new pumpdown system does not alter or tie into safety-related systems and therefore does not jeopardize the plant safe shutdown capability. This modification does not impact any safety shutdown paths as evaluated in Appendix R.

III. No. This modification is non-safety related and does not affect systems having Technical Specification requirements. This change will not in any way change the operation of the circulating water or service water systems.

SER NO.: 89-118

CROSS REFERENCE: PMR 86-9070

DESCRIPTION OF CHANGE:

This modification adds a permanent condenser waterbox pumpdown system on Unit 1.

SUMMARY:

I. No. The new pumpdown system interfaces with the circulating water system and the service water system, both of which are non Q systems and not required for the safe shutdown of the plant. Flooding in the condenser bay area due to a failure of the new waterbox pumpdown piping has been evaluated and has been determined to be enveloped by a circulating water expansion joint rupture. This modification does not jeopardize the function of or alter the operation of any safety related equipment.

II. No. This modification is non-Q and only interfaces with non-Q systems. The new pumpdown system does not alter or tie into safety-related systems and therefore does not jeopardize the plant safe shutdown capability. This modification does not impact any safety shutdown paths as evaluated in Appendix R.

III. No. This modification is non-safety related and does not affect systems having Technical Specification requirements. This change will not in any way change the operation of the circulating water or service water systems.

SER NO.: 89-119

CROSS REFERENCE: PMR 86-9048

DESCRIPTION OF CHANGE:

This change modifies the HPCI test valve by installing special friction element throttling internals.

SUMMARY:

I. No. The proposed modification does not affect the ability of the valve to close as required to support HPCI injection to the RPV. Consequently the ability of the HPCI system to operate as evaluated in the FSAR will not be affected. FSAR Section 6.3.2.2.1 and Chapter 15 were reviewed for this analysis.

II. No. This modification will enhance the ability of the HPCI full flow test valve to perform its testing function. This valve is required to go closed on a HPCI injection signal in order to inject to the RPV during an accident. The new throttling trim being installed enhances the throttling capability of the valve and has no adverse effect on the valve's closing ability. The valves full open to full closed cycle time has not changed, however, since the valve will now be closing from a more full open position (80% open) than currently (~5%), the isolation time for these valves from the throttled position will increase by 30 to 35 seconds. The design basis is contained in a motor operator specification used for valve design and is in no way related to HPCI system response. Therefore, the increased isolation time of the full-flow test valve is of no consequence.

III. No. The safety related function of HPCI valve is to remain in its normally closed position or actuate to the closed position if the valve was in the throttled open position during the Technical Specification required surveillance test. In either case, the margin of safety is unaffected since the new internals are functionally a one for one replacement. The valve in its new configuration has no adverse impact to the valve seismic qualification and the minimal additional weight is insignificant and has no impact on the piping analysis.

SER NO.: 89-120

CROSS REFERENCE: PMR 86-9047

DESCRIPTION OF CHANGE:

This change modifies the RCIC Test Valve by installing special friction element throttling internals.

SUMMARY:

I. No. The proposed modification does not affect the ability of the valve to close as required to support RCIC injection to the RPV. Consequently the ability of the RCIC system to operate as evaluated in the FSAR will not be affected. FSAR Section 5.4.6.2.5.2 and Chapter 15 were reviewed for this analysis.

II. No. This modification will enhance the ability of the RCIC full flow test valve to perform its testing function. This valve is required to go closed on a RCIC injection signal in order to inject to the RPV during an accident. The new throttling trim being installed enhances the throttling capability of the valve and has no adverse effect on the valve's closing ability. The valves full open to full closed cycle time has not changed, however, since the valve is now going closed from a more open position (80%) than originally (5%), the closing time from the new surveillance test throttle position has increased by about 15 to 20 seconds. The coolant flow diverted to the CST during this time differential is considered insignificant; moreover, per FSAR Section 5.4.6.1.1.1, RCIC isn't required to reach rated flow until 30 seconds after system initiation.

III. No. The safety related function of RCIC valve is to remain in its normally closed position or actuate to the closed position if the valve was in the throttled open position during the Technical Specification required surveillance test. In either case, the margin of safety is unaffected, since the new internals are functionally a one for one replacement. The valve in its new configuration has no adverse impact to the valve seismic qualification and the minimal additional weight is insignificant and has no impact on the piping analysis.

SER NO.: 89-121

CROSS REFERENCE: PMR 88-3014A

DESCRIPTION OF CHANGE:

This modification alters the action of three existing alarm relays in one of the control terminals (CT's) from the Vent Stack Radiation Monitoring System and installs three new relays in the same CT for remote energization by the second CT of the system.

SUMMARY:

I. No. This modification is to equipment which is not safety related. The use of redundant NC alarm contacts in the CT's improves the capability of the Vent Stack Radiation Monitoring System to annunciate system alarm conditions under some postulated failure modes (i.e., a loss of power or a malfunction to the Control Room CT). To this extent, the modification enhances rather than degrades operation of the system. The Vent Stack Radiation Monitoring System is a non Class 1E System. Since all modifications will be made within the boundaries of the existing system, the existing system separation between Class 1E and nonClass 1E systems, components, and structures will not be altered by this modification. The effects of this modification on the Appendix R analysis has been documented and been found to be acceptable.

II. No. The proposed changes add no new failure mechanisms which may compromise a system, considered in a FSAR accident analysis. The basic functional design and operation of the system remains unchanged since the function of the Vent Stack Radiation Monitoring System is unchanged. The system is not used to mitigate any FSAR Chapter 6 or 15 accident analysis and is not used for process control.

III. No. The modification improves the capability of the Vent Stack Radiation Monitoring System to perform its function.

SER NO.: 89-122

CROSS REFERENCE: *PMR 87-9162B*

DESCRIPTION OF CHANGE:

This modification replaces the Refueling Bridge Main Hoist Load Cell, load switches, and load indicator with an electronic load control system.

SUMMARY:

I. No. The modification replaces the main hoist load cell and adds two enclosures to house the electronics and load indicator, but does not modify the structure of the refuel bridge. The two new enclosures and conduits/cables are installed in accordance with standards for Seismic Category II over I installations. The new load cell system is classified as non-Class 1E/non-safety related, therefore, it does not have to meet quality assurance requirements of 10CFR50 Appendix B. Per FSAR Section 7.1.2a.1.5 refueling interlocks are not required for safety. Per FSAR Section 7.7.1.10.3.4 refueling interlocks are not required to meet IEEE 279-1971 requirements for the safety functional performance and reliability of protection systems.

II. No. This modification replaces the load cell and does not install any new equipment.

III. No. The new load cell is able to comply with technical specification surveillance requirements. Protection from excessive lifting forces [Bases 3/4.9.6(3)] is provided by the jam interlock. The hoist operator provides a backup in the event of failure of this interlock as is the case with the current hydraulic design. The new system addresses the problem of leakage being experienced with the current system and is an improvement.

SER NO.: 89-123

CROSS REFERENCE: PMR 89-9065

DESCRIPTION OF CHANGE:

This change modifies the main steam isolation valve packing

SUMMARY:

I. No. The changeover to graphite packing will increase the reliability of the stem seals and thereby reduce stuffing box leakage. Also, as previously noted, the stuffing box friction load will be reduced which improves the operability of any of the valves.

II. No. The installation of graphite packing will increase the effectiveness of valve steam seals in the MSIVs and will improve their operability by reducing stem friction.

III. No. A review of the bases for the Technical Specifications concluded that the margin of safety, as defined therein, is not reduced by the proposed action.

SER NO.: 89-124

CROSS REFERENCE: PMR 88-9027

DESCRIPTION OF CHANGE:

This change remounts the Unit 2 Namco limit switches on Masoneilan valves.

SUMMARY:

I. No. The proposed modification does not affect the controls and isolation signals for the valves. Failure of the indication of these valves is not specifically addressed in the FSAR. Additionally, the design basis is not affected by this modification. The probability of a failure of these valves will not be affected by this modification.

II. No. The proposed modification corrects the existing mounting configuration of the switches providing a dynamically qualified method of mounting the switch without degrading their environmental qualification. The use of the special screw will allow the Namco limit switches to be sealed as in their environmental qualification test, thus eliminating the question of water intrusion.

III. No. The isolation valves that are discussed in the Technical Specifications are unaffected by this modification. The operability of the systems of the isolation valves are unaffected. The Technical Specification Limiting Condition for Operation is not applicable during refueling when this modification is being performed.

SER NO.: 89-125

CROSS REFERENCE: PMR 87-9224

DESCRIPTION OF CHANGE:

This change installs fire protection coverage via open spray nozzles for cable tray located in Fire Zone 2-6D.

SUMMARY:

I. No. This modification enhances the ability to extinguish a fire in the fire zone. The modification is designed and constructed to required codes and standards. The proposed action will not incapacitate any safety related systems or components due to the inadvertent actuation of these nozzles.

II. No. This modification extends the area of coverage of hose reel 2HR-222. The design criteria of this design change is non-quality, non-seismic, and meets all the original design inputs and codes imposed on the original equipment.

III. No. Several fire hose stations are addressed within Section 3.7.6.5 of the Technical Specification. These fire hose stations are supplied from the wet standpipe system. By review of the hydraulic design calculations of the existing wet standpipe system, this modification will not degrade or jeopardize the existing wet standpipe system, and subsequently, any fire hose stations.

SER NO.: 89-126

CROSS REFERENCE: TP-069-026

DESCRIPTION OF CHANGE:

This change tests the UV/Ozone process in LRW.

SUMMARY:

I. No. The test of UV/Ozone process in LRW will not alter the operation of the LRW process. The LRW system has no nuclear safety related function. The proposed process will not alter the analysis of accidental released of radioactive waste to ground water. Leakage from the system would be limited by the 1/2" sample lines and by pump discharge pressure. Should leakage occur it would be confined to the local area of the test equipment and would be collected by floor drains. The risks of a failure of this test equipment are minimal.

II. No. All components are located in the Radwaste Building. Failure of any portion of this equipment will have no effect on any safety related system nor does it add a new failure mechanism.

III. No. Technical Specification Section 3.14.11 provides basis and limiting condition of operation for LRW treatment systems. The operating of the LRW process or collection is not altered by this proposed action. The only change to system is the additional sample points which are recycled to LRW as are all samples taken in radwaste.

SER NO.: 89-127

CROSS REFERENCE: PMR-86-9013 Rev. 1

DESCRIPTION OF CHANGE:

This modification provides permanently hard-piped drain connections for the auxiliary boiler steam header to the LRW floor drains and equipment drains.

SUMMARY:

I. No. The Auxiliary Steam System has no safety related function. It is designed such that a failure of the system will not compromise any safety related system or prevent safe reactor shutdown. This modification will result in more stable auxiliary boiler operation and eliminate a major cause of the boilers tripping - that of the back pressure control valves closing no a large increase in steam demand. This modification will not increase the Auxiliary Steam System's applicability to any accident or malfunction of equipment related to safety.

II. No. The Auxiliary Steam System has no safety related function. It is designed such that a failure of the system will not compromise any safety related system or prevent safe reactor shutdown. Installation of this modification will introduce no new failure mechanism which might compromise any safety related system or prevent reactor shutdown.

III. No. The Auxiliary Steam System is not addressed by the Technical Specifications. No Auxiliary Steam System parameters formulate the basis for any Technical Specification.

SER NO.: 89-128

CROSS REFERENCE: PMR-87-7020, Rev. 0

DESCRIPTION OF CHANGE:

This PMR contains safeguards information and as such is not summarized herein.

SUMMARY:

I. Safeguards material.

II. Safeguards material.

III. Safeguards material.

SER NO.: 89-129

CROSS REFERENCE: PMR-87-9042

DESCRIPTION OF CHANGE:

This modification adds a shutoff/isolation valve in the condensate supply to the suppression pool fill line on the Core Spray B Loop. Vents will also be added 1) downstream of this new valve and 2) on the 2" condensate supply line to the injection lines.

SUMMARY:

I. No. The Core Spray Keepfill is a branch of the condensate transfer system which has no safety related function per Section 10.4.7 of the FSAR. This proposed modification does not adversely affect the operation of any safety related equipment or system. The addition of the valves associated with this modification will eliminate the need to place Core Spray Loop A in an LCO during the LLRT of the B Loop which is the present practice. The only failure mechanism for the new valves which could potentially affect the normal operation of the Core Spray Discharge Line Keepfill function of the condensate transfer system is the inadvertent opening of one of the proposed manual vent valves.

II. No. The condensate supply to the Core Spray Keepfill and suppression pool fill is not safety related. During normal plant operation, the vent valves are closed and capped, and the new suppression pool fill isolation valve is to be kept closed administratively. This does not affect the suppression pool fill function, since this flow path is normally manually isolated, the existing isolation valve must be manually opened to use the Condensate Keepfill System for suppression pool fill. As such, these valves will not affect the operation of any safety related systems.

III. No. The condensate supply to the Core Spray Keepfill system and the addition of the shutoff and vent valves serve no safety functions, and are not addressed in the Technical Specifications. They will only be operated during the LLRT or suppression pool filling evolutions and not during normal operation; therefore, the proposed modification does not adversely affect operation of the Core Spray System as discussed in Section 3/4.5 of the Technical Specifications.

SER NO.: 89-130

CROSS REFERENCE: DCP 87-9203

DESCRIPTION OF CHANGE:

This modification installs two manual isolation valves at the feedwater heater common drain header for each of the nine feedwater heaters which connects the feedwater heater shell side condensing section and subcooling section with the equipment drain pipe to the Liquid Radwaste System.

SUMMARY:

I. No. FSAR Section 10.4.7.1 states that the feedwater system has no safety-related function. The feedwater heaters and associated pipings affected by the proposed action are the portion of feedwater system located upstream of the outermost containment isolation valve, and are not essential for safe shutdown of the plant in accordance with FSAR Section 10.4.7.3. The addition of isolation valves as proposed could minimize the probability of heater shell leakage to the liquid radwaste system, and therefore enhance the design bases as stated in FSAR Section 10.4.7.3.

II. No. The proposed action, that provides the normally closed isolation valves to isolate an undesirable and non-design-based bypass flowpath, will restore the feedwater heaters to conform to its original design bases, and consequently enhance the feedwater heater and system reliability.

III. No. The proposed action does not involve or interface with any safety-related components or systems.

SER NO.: 89-131

CROSS REFERENCE: PMR 86-9030

DESCRIPTION OF CHANGE:

This change installs manually initiated bypass logic in the Feedwater heater extraction steam isolation valve control circuitry.

SUMMARY:

I. No. Per FSAR Sections 10.4.7 and 10.4.10 this system has no safety related function. The proposed modification does not alter this status, nor does it affect the accident analyses described in FSAR section 15. This modification will not affect the degree of feedwater heating required during normal plant operations. The proposed bypass will be administratively managed for use only during plant startup. Even with the High-High Level Trip bypassed, adequate protection is still available from installed systems to prevent turbine water induction and to preclude turbine overspeed caused by flash steam.

II. No. The Extraction Steam Isolation valve associated with feedwater heaters are tripped closed to prevent damage to the turbine. This valve and its associate control logic perform no safety function nor are they intended to limit or mitigate the consequence of analyzed accidents. The use of the proposed logic will be administratively limited to feedwater startup evolutions. This modification does not make inoperative any equipment protection feature during the startup evolution.

III. No. The Unit 2 Technical Specifications Sections 3/4.3.8 and 3/4.3.9 have been reviewed. The proposed modification does not affect the Extraction Steam Isolation Valve actuation initiated by a turbine trip. The proposed modification does not interact directly with the Trip System Actuation Instrumentation or any nuclear safety related logic string.

SER NO.: 89-132

CROSS REFERENCE: PMR 89-9055

DESCRIPTION OF CHANGE:

This modification replaces the motor termination configurations for RHR pump motors.

SUMMARY:

I. No. This modification does not alter the function, operation or design basis of the RHR system. The new motor terminations (Raychem splices) meet the environmental qualification requirements of IEEE 323-1974. In addition, the new motor termination boxes are designed to withstand all seismic and hydrodynamic loads, assuring conformance to IEEE-344-1975.

II. No. The replacement termination boxes are fabricated in accordance with the dynamic requirements of the RHR pump motor. The proposed configuration has been analyzed and it has been determined that the dynamic qualification of the RHR pump motor is unchanged. The qualification of the RHR motors is not affected by these replacements. These modifications do not create any new II/I concerns.

III. No. The modifications do not alter the function, configuration or design basis of the Residual Heat Removal System; nor will they alter the function of any components described in the Technical Specifications.

SER NO.: 89-133

CROSS REFERENCE: PMR 89-3003A

DESCRIPTION OF CHANGE:

This modification installs equipment in the Intake Structure Instrument Air System to improve its reliability and maintainability.

SUMMARY:

I. No. Failure of the Intake Structure Instrument Air System will not endanger the operation of any safety-related instruments or controls. The proposed action will affect only the Intake Structure Instrument Air System by reducing the moisture load on the dryers (new prefilters), and by removing additional particulate (new afterfilters). These effects will improve the performance (lower dewpoint and less particulate carryover) and reliability of the system. Also, the new dryers should insure a consistent design dewpoint is achieved.

II. No. The Intake Structure Instrument Air System is non safety related as are all components using this system. Failure of Intake Structure Instrument Air or any of its end users cannot impact any component/system related to safety.

III. No. This modification affects only the Intake Structure Instrument Air System. The Intake Structure Instrument Air System is not mentioned in the bases for any Technical Specifications nor is any system that uses the Intake Structure Instrument Air System.

SER NO.: 89-134

CROSS REFERENCE: PMR 88-3071A and B

DESCRIPTION OF CHANGE:

This modification installs a high efficiency coalescing filter upstream of each instrument air dryer skid.

SUMMARY:

I. No. FSAR Section 9.3.1.1 was reviewed. Instrument air is non-safety related and air operated components essential for safe plant shutdown are designed to fail safe. The installation of the prefilters will affect only the instrument air system by reducing the moisture load on the dryer.

II. No. The proposed action will reduce the liquid moisture load on the dryers thereby reducing the powdering of the desiccant. Reducing the moisture load on the dryer will improve the reliability as well as the performance (air quality) of the dryers. Additionally, partial header depressurization (e.g. clogging of the prefilters) will be significantly reduced with the new prefilters as their capacity is greater than the existing prefilters.

III. No. This modification affects only the Instrument Air System but does not affect its operation nor the operation of any of its users. The Instrument Air System is not mentioned in the basis for any Technical Specification, and this modification will not affect the operation of any component important to safety.

SER NO.: 89-135

CROSS REFERENCE: PMR 87-9142

DESCRIPTION OF CHANGE:

This modification adds containment atmosphere control system separate valve position indication.

SUMMARY:

I. No. The proposed modification affects the indication logic of the system isolation valves. The controls and isolation signals are not affected. The modification will be performed internal to Class 1E local indication panels. Hardware is from existing qualified equipment. A seismic analysis was performed. The logic modification results in the existing indicators providing true indication of a valve failing in an intermediate position and the dropped voltage modification for the local indicators precludes repeated fuse failures due to the present full voltage design.

II. No. The modification enhances the current design by providing true indication of valves failed in an intermediate position and by precluding fuse failures. All physical work is performed internal to panels. Qualified hardware will be used. Existing circuits will not be affected.

III. No. Operability of the isolation valves as discussed in Technical Specification Section 3/4.6.3 is unaffected by this modification. Only the valves status indication logic for local and control room indication is modified. Similarly, the operability of the Accident Monitoring Instrumentation as found in the basis for Technical Specification Section 3/4.3.7.5 is unaffected.

SER NO.: 89-136

CROSS REFERENCE: PMR 89-9070

DESCRIPTION OF CHANGE:

This change modifies mounting and grounding circuitry of the replacement Airpax Model 306 tachometers on Diesel Generator "C".

SUMMARY:

I. No. The diesel generator is equipped with a redundant set of tachometers. The modification will rectify problems with electrical noise that adversely affect the newer models of the tachometer as applied in the design. The new mounting configuration with a rubber gasket seal and nylon screws will remain structurally sound and will retain its seismic qualification. Mounting of the tachometers and modification to the ground circuitry are not discussed in the FSAR.

II. No. This modification rectifies problems with the newer tachometers susceptibility to noise in local control panel and will not change the function of the tachometer. The modification as installed will not affect the seismic qualification of the tachometers.

III. No. The change modifies the mounting and the grounding of the redundant tachometer pair which monitors starting air and other speed related engine functions to the diesel. The function of the tachometer pair will remain the same. The grounding and mounting of specific devices is not mentioned as part of any Technical Specification.

SER NO.: 89-137

CROSS REFERENCE: NL-89-035

DESCRIPTION OF CHANGE:

This change installs a bypass for installing wiring from the existing control circuitry for the HPCI test line to the CST Isolation valve HV-155-F011 to the GETARS for position indication.

SUMMARY:

I. No. The safety function of the HPCI test line to CST Isolation valve HV-155-F011 is to ensure HPCI system injection when required. Valve HV-155-F008 provides a redundant function. This bypass does not affect the F008 valve. The only failure that could be proposed would be an electrical failure resulting in loss of control of the F011 valve preventing autoclosure or loss of other electrical components wired in HPCI Division 2 Relay Panel. The proposed change is no different than required wiring changes or jumper installations used during routine surveillance testing. This change no different than other GETARS ties from existing GETARS points to plant systems. This change can not affect the RCIC system since the F011 valve does not receive an autoclosure on RCIC initiation.

II. No. Failure of the F011 valve to close would have the same HPCI system effects regardless of the initiating event. An electrical failure as a result of this bypass would be no different than any failure of existing electrical equipment in the panel. No separation criteria have been violated resulting in unanalyzed failures.

III. No. The bypass does not reduce the HPCI system's ability to perform it's design function.

SER NO.: 89-138

CROSS REFERENCE: J881018, Setpoint Change LSL-02808, LSL-02809

DESCRIPTION OF CHANGE:

This change revises the setpoints of Intake Structure Sump A and Sump B Low Level Alarm from 174" to 160".

SUMMARY:

I. No. The low level alarms are not directly addressed in the FSAR; however, the RWMU pumps are addressed in the FSAR Section 9.2.7 as providing water makeup to the spray pond to extend beyond the 30 day capacity of the spray pond. Changing the setpoints from 174" to 160" reduces the warning of low level from 36" to 22" but still provides operations with adequate time to respond to and evaluate the cause of the alarm prior to reaching the pump trip setpoint.

II. No. FSAR Section 9.2.7 references other options for makeup to the spray pond in the event the RWMU pumps are unavailable for makeup beyond 30 days of spray pond operation.

III. No. This level switch is not addressed in the Technical Specification and provides an alarm function only. Indirectly, Section 3.7.1.3 references spray pond operability; loss of RWMU pump does not make it inoperable due to its 30 day capacity and alternate makeup sources.

SER NO.: 89-139

CROSS REFERENCE: PMR 87-9141, Rev. 0

DESCRIPTION OF CHANGE:

1. This change disconnects Valves HV-243F019 and HV-243F020 from their existing RPS 120V AC power supply and reconnects the valves to a 120V AC, Class 1E (D/G backed) power supply.

SUMMARY:

I. No. The proposed action does not change input parameters or initial conditions for analyzed events as identified in FSAR Table 15.0-2 and does not adversely impact any of the existing systems. Implementation of the proposed action will comply with FSAR Section 3.13. Failure of the system will not compromise any safety related system or component or prevent a safe shutdown of the plant.

II. No. The proposed modification enhances the system function. The availability of position indication for the reactor recirculation sample valves will increase due to provision of a reliable Class 1E (D/G backed) power supply.

III. No. Isolation Actuation Instrumentation is addressed in Technical Specification Section B3/4.3.2. The Reactor Recirculation System is addressed in Technical Specification Section B3/4.4.1. However, the valves HV-243F019 and HV-243F020 are not specifically discussed in the above Technical Specification sections. Primary Containment Isolation Valves are addressed in Technical Specification Section B3/4.6.3 and the subject valves are listed in Table 3.6.3-1. The function of these valves does not change due to the proposed modification and it complies with the requirements of the Technical Specifications.

SER NO.: 89-140

CROSS REFERENCE: PMR 89-9060, Rev. 1

DESCRIPTION OF CHANGE:

This change adds a time delay to the high flow and high pressure isolations for shutdown cooling.

SUMMARY:

I. No. There are no safety related setpoints involved in the safety analysis of the shutdown cooling mode of RHR except for the high/low pressure interlocks. Therefore, the addition of the time delay to the high flow isolation will not affect any safety related analysis. In addition to adding a time delay to the closure of the shutdown cooling isolation valves, the time delay relays will also add a two second delay to the Head Spray Isolation Valves on high shutdown cooling flow. The analysis bounds the addition of a time delay to closing the Head Spray Isolation valves on high shutdown cooling flow.

II. No. The installation does not alter the mechanical configuration of the RHR system. The logic is only altered by the addition of the time delay. Common mode failures which defeat the safety functions of RHR have been precluded.

III. No. The modification did not alter any setpoints contained in the Technical Specifications for RHR Shutdown Cooling. There is no affect on any response time surveillances. The addition of the time delay does not affect the Technical Specification basis.

SER NO.: 89-141

CROSS REFERENCE: PMR 88-3018K

DESCRIPTION OF CHANGE:

This modification adds Appendix R raceway wrapping for the Unit 2 Emergency Switchgear Room Dx Units.

SUMMARY:

I. No. The addition of fire protective wrap decreases the probability of occurrence or the consequences of an accident or malfunction of equipment as previously evaluated because of the additional protection provided to safe shutdown circuits. Ampacitance has been considered to assure cables will operate within their design temperature values.

II. No. This modification does not interfere with logic, control or operation of any plant systems or components. The modification does increase the scope of visual inspection of fire rated assemblies as required by Technical Specifications, but does not impact periodic maintenance, calibration or surveillance activities.

III. No. Although surveillance procedures require updating, wrapping of required raceway does not interfere with any surveillance activities required by Technical Specifications.

SER NO.: 89-142

CROSS REFERENCE: PMR 88-3018B

DESCRIPTION OF CHANGE:

This modification provides isolation of RHR valve HV-E11-2F009 for a fire in the remote shutdown panel.

SUMMARY:

I. No. Rewiring the valve opening control circuit does not change the existing operation or function of the valve or the RHR system. Independence of redundant Class 1E systems is maintained. New cabling and internal wiring is seismically installed. Fire protection material is provided per requirements.

II. No. The wiring modification does not change the overall control logic for the valve or the operation of the RHR system.

III. No. The operation of the RHR system is not affected by the modification.

SER NO.: 89-143

CROSS REFERENCE: NL-89-017

DESCRIPTION OF CHANGE:

This evaluates the use of the Super Scavenger Robot to decontaminate the Unit 1 Equipment Pool.

SUMMARY:

I. No. Adequate controls are provided to ensure maintenance of water level in the pool at all times during the cleaning evolution.

II. No. FSAR Section 9.1.2.2 addresses the design of the spent fuel pool relative to level reduction. The procedrue provides adequate controls to ensure maintenance of level during the cleaning evolution.

III. No. Technical Specification Section 3/49.9 requires at least 22 feet of water shall be maintained over the top of irradiated fuel assemblies. The procedure provides controls to ensure maintenance of level no less than 21' 11¼" over the top of spent fuel. This is greater than the level preserved by the permanently installed siphon breakers.

SER NO.: 89-144

CROSS REFERENCE: NL-89-056, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this modification is to install a variable speed controller on the containment radiation monitor pump motors.

SUMMARY:

I. No. None of the monitoring functions of the system are altered. Additionally, no containment isolation functions or post accident alignment requirements for the CRM panel are affected.

II. No. No significant increase in equipment malfunction is anticipated since:

1. Seismic event in this area is a remote occurrence.
2. The controller is built to high industry standards.
3. The CRM is a redundant system.
4. No trips or automatic actions are associated with the CRMs.
5. The information provided by the CRMs is supportive information verified by other systems.

III. No. Installation of the bypass will increase the availability of the B CRM panel until proper sized pulleys can be installed and the bypass is removed.

SER NO.: 89-145

CROSS REFERENCE: NL-89-057, Rev. 0

DESCRIPTION OF CHANGE:

This procedure provides a mechanism to record Reactor Pressure and RHR System Pressure while starting up Unit 2 after the RIO3. Another section of the TP provides two mechanisms for equalizing pressure across HV-251F015B in an attempt to stroke the valve and provide a better seat minimizing RHR System pressurization.

SUMMARY:

I. No. The procedure does not in any way defeat the HV-251F015B and HV-251F017B interlock which allows only one to be open at a time. Also, the procedure takes steps to prevent pressurizing the low pressure piping of the RHR loop by opening a vent valve while utilizing the hydro pump to pressurize between the HV-251F015B and HV-251F017B.

II. No. The procedure takes steps to protect from introducing high pressures into other sections of the RHR piping. The configurations will be established in the procedure provide equipment and personnel protection.

III. No. The bases for the Technical Specifications have been reviewed and no margin of safety for the RHR or Containment Boundary bases is reduced by this procedure.

SER NO.: 89-146

CROSS REFERENCE: NL-89-056, Rev. 1

DESCRIPTION OF CHANGE:

The purpose of this modification is to install a variable speed controller on the containment radiation monitor pump motors.

SUMMARY:

I. No. None of the monitoring functions of the system are altered. Additionally, no containment isolation functions or post accident alignment requirements for the CRM panel are affected.

II. No. No significant increase in equipment malfunction is anticipated since:

1. Seismic event in this area is a remote occurrence.
2. The controller is built to high industry standards.
3. The CRM is a redundant system.
4. No trips or automatic actions are associated with the CRMs.
5. The information provided by the CRMs is supportive information verified by other systems.

III. No. Installation of the bypass will increase the availability of the B CRM panel until proper sized pulleys can be installed an the bypass is removed.

SER NO.: 89-147

CROSS REFERENCE: NL-89-059, Rev. 0

DESCRIPTION OF CHANGE:

The proposed action is to disconnect the Fuel Filter Differential Pressure Instrument from the C DG. The instrument will be removed by disconnecting the valve at the fuel line piping cross and installing plugs in the cross and root valve.

SUMMARY:

I. No. Since the function of the fuel filter is not being altered by the installation of the bypass, the proposed action is not contributing to a potential malfunction of the fuel system. Because it is removing a component prone to failure, the bypass is actually enhancing the operation of the C DG.

II. No. Since the bypass does not alter the operation of the fuel supply to the engine, performance of C DG is not altered. A condition of a fuel filter restriction can still be detected by low fuel pressure indication and alarm. The seismic qualification has been determined to be unaffected.

III. No. The bases of the DG Technical Specifications is to assure sufficient power is available for safety related equipment required to mitigate and control DBA's. The capacity of DG C is not being altered and its availability is actually being enhanced.

SER NO.: 89-148

CROSS REFERENCE: PMR 89-9219, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this modification is to change the diesel fuel oil system to eliminate vibration problems.

SUMMARY:

I. No. Sections 9.5.4.1 thru 9.5.4.3 of the FSAR cover the diesel fuel oil system and components. These modifications do not change the system function as described in the FSAR.

II. No. The system function is not changed by these modifications. These modifications will clearly improve the ability of this pipe to withstand vibration.

III. No. Technical Specification Section 3/4.8.1 was reviewed. The piping and tubing being modified is not specifically mentioned in the Technical Specifications. The modifications will improve the reliability of the Fuel Oil System by improving its ability to withstand localized vibration.

SER NO.: 89-149

CROSS REFERENCE: 88-3068A and B, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs new instrumentation to provide local indication and historical data collection for instrument air system header dewpoint, dryer inlet flow, and dryer tower temperatures. Historical data is also collected from existing air receiver outlet and instrument air header pressure transmitters.

SUMMARY:

I. No. The proposed action affects only the Instrument Air System and the FSAR does not evaluate any accidents or safety-related equipment malfunctions caused by instrument air.

II. No. FSAR Section 9.3.1.1 states that all safety-related components using instrument air are designed to fail safe upon a loss of air. NUREG 1275 and NRC Generic Letter 88-14 document several cases in the industry where poor quality air has caused safety-related air supplied components to fail in the unsafe position. The proposed action reduces the likelihood of this occurring by extending the life of dryer components and desiccant through fewer regenerations.

III. No. This modification affects only the Instrument Air System and does not affect the ability of any safety-related component to perform it's safety-related function. The Instrument Air System is not mentioned in the basis for any Technical Specification, and this modification does not affect the operation of any component important to safety.

SER NO.: 89-150

CROSS REFERENCE: PMR 89-9014, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a permanent sample supply and return line from the offgas recombiner system.

SUMMARY:

I. No. This modification is bounded by the analysis presented in FSAR Sections 11.3, 12.2.2.3, 12.2.2.4 and 9.4.4.

II. No. Based on the review of the FSAR, the proposed action of installing a permanent sample line in the offgas recombiner system does not alter the design bases or function of the offgas system. A gaseous radwaste system leak or failure is the only conceivable accident. This accident has been analyzed within FSAR Section 15.7.1.

III. No. The proposed modification does not affect the operability of the Gaseous Radwaste System. The offgas hydrogen concentration can be obtained by an alternate means.

SER NO.: 89-151

CROSS REFERENCE: PMR 84-9012 Rev. 1

DESCRIPTION OF CHANGE:

The modification removes the installed equipment for a permanent truck radiation monitoring system.

SUMMARY:

I. No. Only unscheduled spare conduits and cables are to be left in place as changes to the former installation.

II. No. See I above.

III. No. This system is not and was not described in the Technical Specifications.

SER NO.: 89-152

CROSS REFERENCE: PMR 88-9008A, Rev. 0, 88-9008C Rev. 0. and 88-9009A

DESCRIPTION OF CHANGE:

The proposed modification will add a 6", swing-check valve to the Fuel Pool Filter/Demineralizer (F/D) inlet line to provide a positive barrier against backflow of the F/D whenever the unit is in the "Hold" mode and/or the main pumps are tripped. The intent of the change is to prevent radioactive resins being inadvertently flushed backwards through the influent valve.

SUMMARY:

I. No. The proposed modification would add a check valve to the inlet line. The valve addition is intended to provide a positive barrier to reverse flow in the inlet line and prevent which contamination of the filter/demineralizer inlet line, the bypass line and those lines up to and including the Condensate Storage Tank. The modification would enhance rather than degrade operation of the units.

II. No. The proposed modification causes a new action, closure of the check valve whenever a reverse flow is sensed in the influent line. This closure isolates the filter-demineralizer common inlet header from the individual filter/demineralizer, thus providing a barrier against backflow out of the system. The proposed modification adds no new failure mechanism which might compromise any safety-related system. Additionally, the chemistry limit and radiological limits were reviewed and found to be unaffected by this modification.

III. No. A review of the Technical Specifications indicated that there are no requirements provided for the fuel pool filter-demineralizers. Section 3/4.9 presents certain requirements applicable to the fuel pool water level but none pertaining to water filtration of demineralization. Water level is insured by several means (i.e., several sources of makeup, vacuum breakers on return lines, etc.), none of which are affected by this modification.

SER NO.: 89-153

CROSS REFERENCE: SCP J89-2088

DESCRIPTION OF CHANGE:

This setpoint change package raises the pump trip setpoint of LSHL-06417 to a level above the eductor so that only the mixed volume of the tank is discharged in the Laundry Drain System. The present pump trip setpoint is 21 11/16" from the bottom of the tank or 10 7/8" below the eductor. The new setpoint will be 38" from the bottom of the tank or 2 7/16" above the eductor.

SUMMARY:

I. No. The Laundry Drain System is part of the Liquid Waste Management System (LWMS) and per FSAR Section 11.2.1 has no nuclear safety related function. This setpoint change package, which raises the low level trip setpoint for the Laundry Drain Sample Pumps, has no impact on any FSAR Chapter 15 accident analyses or any safety related systems.

II. No. This setpoint change package involves a non safety related system and has no impact on any safety related systems. This setpoint change will decrease the probability of an effluent release of inventory that has not been sampled. This change will improve the process and effluent radiological monitoring and sampling system.

III. No. This low level trip setpoint for the Laundry Drain Sample Pumps is not mentioned in the Technical Specifications. This setpoint change package has no impact on Radioactive Liquid Effluent Monitoring Instrumentation as mentioned in Technical Specification Section 3/4.3.7.10.

SER NO.: 89-154

CROSS REFERENCE: PMR 89-9066

DESCRIPTION OF CHANGE:

The existing, power, control, and instrument feeds to the mechanical vacuum pump air removal header valves are reversed. Cables were inadvertently terminated to the wrong valves. To eliminate electrical blocking safety concerns, valve ID numbers and associated drawings including the P&ID are changed.

SUMMARY:

I. No. The proposed modification will provide "as designed" valve control and cable routing. Failure of the proposed modification will not affect the overall operation of the plant,

II. No. A review of the FSAR has been performed, specifically Section 10.4.2. The reconfiguration of the valves will not provide any new failure mechanisms different than those previously evaluated in the FSAR.

III. No. The mechanical vacuum pump or its associated valving are not addressed in the Technical Specification and, therefore, do not have formal limiting conditions for operation. This modification will enable the non safety related valves to be utilized in a manner compliant with the system design.

SER NO.: 89-155

CROSS REFERENCE: NL-89-033

DESCRIPTION OF CHANGE:

This modification installs a temporary source of air/gas to the two (2) Unit 1 Cooling Tower Instrument Air loads which will be isolated from the remainder of the Instrument Air system due to U-1 instrument air CWPH header leak repair.

SUMMARY:

I. No. FSAR Section 9.3.1.1 and Table 9.3-2 were reviewed and state that the instrument air system is non-safety related and that air operated components essential for the safe shutdown of the plant are designed to be fail safe. The installation of a temporary source of I-A/gas will affect only the cooling tower basin instrumentation and basin water makeup level valve. The cooling tower basin level instrumentation and valve have no safety function and are not defined as safety related per FSAR Section 9.3. The above mentioned components will go to their design condition/position should they experience a loss of instrument air/gas.

II. No. The FSAR Section 9.3.1.1 review indicates that a loss of temporary instrument air - N2 tanker - would actually cause the instrumentation to fail safe. This meets the design of all instruments and components fed by the instrument air system, as described in FSAR Section 9.3.1.1 and Table 9.3-2.

III. No. The temporary instrument air source, N2 tanker, provided to the Cooling Tower end users nor the instrument air system are described in the basis of the Technical Specifications.

SER NO.: 89-156

CROSS REFERENCE: NL-89-55, Rev. 0

DESCRIPTION OF CHANGE:

The proposed action is to operate U2C4 with a core loading pattern which is revised from the original loading pattern described to and accepted by the NRC for U2C4. The revised U2C4 core loading pattern and the shutdown margin analyses necessary to support refueling and Condition 5 operation were developed and documented.

SUMMARY:

I. No. None of the licensing analysis results for the original U2C4 core loading pattern will be worse because of the revised U2C4 core loading pattern, and the proposed action does not require any changes to plant procedures, systems, or operations. There is no change in barrier performance.

II. No. The proposed action does not result in any new plant system initial configurations or failure modes beyond those already considered in the FSAR.

III. No. The margin of safety for operation of the revised U2C4 core is based on the licensing analyses for the original U2C4 core loading pattern. The licensing analyses resulted in the determination of the U2C4 specific fuel and core related Technical Specification operating limits required to prevent violation of any fuel and core related safety limits during U2C4.

SER NO.: 89-157

CROSS REFERENCE: PMR 89-3037

DESCRIPTION OF CHANGE:

The proposed Site Access Processing Facility requires services provided by existing plant systems. These services are Domestic Water, Sanitary Drainage and Fire Protection. This modification will provide the connections from the Site Access Processing Facility to these three existing systems.

SUMMARY:

I. No. No functional changes to any systems will be made by this modification. The existing systems will be capable of providing the required services to the new facility with no adverse affects to other connected site facilities. The fire protection and domestic water will be supplied from the Domestic Fire Water Pumphouse which is located outside the security fence. This pumphouse is not used as the source of fire protection water for the plant as defined in the FSAR Section 9.5.1.2.2.

II. No. The connections are all performed on non-safety related systems located outside the plant security fence.

III. No. The Technical Specifications have been reviewed and the Domestic Water and the Sanitary Drainage are not specifically addressed. Section 3/4.7.6 provides the basis for the Technical Specification on the Fire Suppression System. This modification is only to tie into and use existing systems to service the new facility. No functional changes to any systems will be made by this modification.

SER NO.: 89-158

CROSS REFERENCE: *SCP E89-1073*

DESCRIPTION OF CHANGE:

The purpose of this change is to increase the setpoint for the 50/51A devices in Breaker 2A20306 to obtain proper coordination with Breaker 2B23021.

SUMMARY:

I. No. The proposed action implements a setpoint change for the 50/51A device (overcurrent relay) for breaker 2A20306. The proposed action assures that the existing long time setting of circuit breaker 2B23021 will coordinate with the overcurrent relay located in breaker 2A20306. The setpoint change complies with Section 8.3.1.3.13 of the FSAR.

II. No. The electrical calculation that identified the need to revise the setpoints of the overcurrent relay is in accordance with Section 8.3.1.3.13 of the FSAR.

III. No. The margin of safety is increased due to proper system coordination.

SER NO.: 89-159

CROSS REFERENCE: SCP E89-1058, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this change is to increase the setpoint for the 50/51A devices in breakers 1A20306 and 1A20406 to obtain proper coordination with breakers 1B23023 and 1B24023.

SUMMARY:

I. No. The proposed action implements a setpoint change for the 50/51A device (overcurrent relay) for breakers 1A20306 and 1A20406. The proposed action assures that the existing long time settings of circuit breakers 1B23023 and 1B24023 will coordinate with the overcurrent relay located in breaker 1A20306 and 1A20406. The setpoint change complies with Section 8.3.1.3.13 of the FSAR.

II. No. The electrical calculation that identified the need to revise the setpoints of the overcurrent relays are in accordance with Section 8.3.1.3.13 of the FSAR.

III. No. The margin of safety is increased due to proper system coordination.

SER NO.: 89-160

CROSS REFERENCE: NL 89-005, PMR 88-3039A, Rev. 0, TP 215-006

DESCRIPTION OF CHANGE:

This evaluation contains a procedure for flushing Unit 2 TBCCW Heat Exchanger and the installation of temporary flush modifications post retubing.

SUMMARY:

I. No. Per FSAR Section 9.2.3.3, failure of this system will not compromise any safety related system or component or prevent a safe shutdown of the plant.

II. No. The procedure contains prerequisites to minimize plant risk. Failure of the system will not compromise any safety related system or component or prevent safe shutdown of the plant. Off normal procedures describe steps to be taken if TBCCW is lost.

III. No. The TBCCW system is not addressed by any Technical Specifications.

SER NO.: 89-161

CROSS REFERENCE: NL-89-005, PMR 88-3038A, Rev. 0, TP-115-006

DESCRIPTION OF CHANGE:

This evaluation contains a procedure for flushing Unit 1 TBCCW Heat Exchanger and the installation of temporary flush modifications post retubing.

SUMMARY:

I. No. Per FSAR Section 9.2.3.3, failure of this system will not compromise any safety related system or component or prevent a safe shutdown of the plant.

II. No. The procedure contains prerequisites to minimize plant risk. Failure of the system will not compromise any safety related system or component or prevent safe shutdown of the plant. Off normal procedures described steps to be taken if TBCCW is lost.

III. No. The TBCCW system is not addressed by any Technical Specifications.

SER NO.: 89-162

CROSS REFERENCE: NL-89-012

DESCRIPTION OF CHANGE:

This change temporarily crossties Channels A&C within Division I-125V DC and crossties Channels B&D within Division II-125V DC during Unit 1 Refuel and Inspection Outages in order to maintain 125V DC loads during surveillance testing of the station batteries.

SUMMARY:

I. No. The proposed action does not affect the operable 125V DC division or associated systems. By design of the 125V DC system adequate electrical separation and isolation has been provided between channels such that the system testing in any pair of channels within a division will not violate separation and isolation criteria. Adequate isolation from the operable 125V DC systems of the other operating unit is provided by the common load transfer switches. Therefore, the operation of the other unit's 125V DC systems is not affected by the proposed action.

II. No. Equipment required for safety in the operating and shutdown units is unaffected by the proposed action with the provisions for electrical separation and isolation. Plant safety is actually enhanced by providing 125V DC power to systems considered inoperable per Technical Specifications. More systems will be available for use than would be if the channel undergoing battery testing was deenergized.

III. No. For the Unit in Condition 4 or 5, one division of 125V DC power is sufficient to maintain the Unit in shutdown or refueling status and to provide instrumentation and control capability for monitoring and maintaining the Unit status. The powering of additional 125V DC equipment increases the margin of safety above that established in the Technical Specification Bases.

SER NO.: 89-163

CROSS REFERENCE: NL-89-013

DESCRIPTION OF CHANGE:

This change temporarily crossties Channels A&C within Division I-125V DC and crossties Channels B&D within Division II-125V DC during Unit 2 Refuel and Inspection Outages in order to maintain 125V DC loads during surveillance testing of the station batteries.

SUMMARY:

I. No. The proposed action does not affect the operable 125V DC division or associated systems. By design of the 125V DC system adequate electrical separation and isolation has been provided between channels such that the system testing in any pair of channels within a division will not violate separation and isolation criteria. Adequate isolation from the operable 125V DC systems of the other operating unit is provided by the common load transfer switches. Therefore, the operation of the other unit's 125V DC systems is not affected by the proposed action.

II. No. Equipment required for safety in the operating and shutdown unit is unaffected by the proposed action with the provisions for electrical separation and isolation. Plant safety is actually enhanced by providing 125V DC power to systems considered inoperable per Technical Specifications. More systems will be available for use than would be if the channel undergoing battery testing was deenergized.

III. No. For the Unit in Condition 4 or 5, one division of 125V DC power is sufficient to maintain the Unit in shutdown or refueling status and to provide instrumentation and control capability for monitoring and maintaining the Unit status. The powering of additional 125V DC equipment increases the margin of safety above that established in the Technical Specification Bases.

SER NO.: 89-164

CROSS REFERENCE: PMR 88-3018B

DESCRIPTION OF CHANGE:

This change rewires Unit 2 RHR Isolation Valve such that fire-induced shorts in Fire Zone 2-2A will not result in spurious opening of the valve.

SUMMARY:

I. No. The proposed action to rewire the valve opening control circuit does not change the existing operation or function of the valve or the RHR system. Installation of the proposed modification maintains the independence of redundant Class 1E systems as described in the FSAR Sections 8.3.1.11.4 and 8.1.6.1.n. New cable and internal wiring is installed in seismically supported Division I raceway.

II. No. The wiring modification does not change the overall control logic of the valve or the operation of the RHR system.

III. No. The operation of the RHR system as identified in Technical Specification 3/4.4.9 is not affected by the wiring modification in the opening circuit of the valve.

SER NO.: 89-165

CROSS REFERENCE: PMR 88-3016G

DESCRIPTION OF CHANGE:

This modification adds emergency lighting units.

SUMMARY:

I. No. The emergency lighting units do not affect safety related systems or equipment. Electrical separation is maintained between the new units and the existing systems. The emergency lighting units will be installed using seismically deigned supports. All safety impact or II/I issues have been analyzed. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Diesel generator loading is addressed and the emergency lighting unit loads added by this modification are acceptable. Voltage drop and circuit ampacity are within design limits. The combustible load increase is within the design maximum. This modification does not interfere with the logic, control or operation of any safety-related plant system or components.

II. No. The emergency lighting units do not affect safety related systems or equipment. Electrical separation is maintained between the new units and the existing systems. The emergency lighting units will be installed using seismically deigned supports. All safety impact or II/I issues have been analyzed. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Diesel generator loading is addressed and the emergency lighting unit loads added by this modification are acceptable. Voltage drop and circuit ampacity are within design limits. The combustible load increase is within the design maximum. This modification does not interfere with the logic, control or operation of any safety-related plant system or components.

III. No. This modification does not interfere with the logic, control or operation of any safety-related plant system or component. The circuits feeding the individual emergency lighting units have breakers coordinated with upstream devices. Voltage drop and load ampacity are within design limits.

SER NO.: 89-166

CROSS REFERENCE: PMR 88-9003, Rev. 1

DESCRIPTION OF CHANGE:

This modification welds cover plates over the ends of washer/nut assemblies for the steam dryer to prevent loose parts in the reactor vessel.

SUMMARY:

I. No. The modification has no impact on steam dryer performance. It only prevents washers, nuts, and tie-bar spacers from becoming loose parts.

II. No. The steam dryer is a non-safety related component. This modification has no affect on safety-related components.

III. No. The steam dryer is not covered by the Technical Specifications.

SER NO.: 89-167

CROSS REFERENCE: PMR 89-9015, Rev. 0

DESCRIPTION OF CHANGE:

This modification provides a new fill line and valve for the RBCW expansion tank. The new valve will permit viewing of the tank sight glass.

SUMMARY:

I. No. This affects only the non-safety portions of RBCW.

II. No. This affects only the non-safety portions of RBCW.

III. No. This portion of RBCW is not addressed in the Technical Specifications.

SER NO.: 89-168

CROSS REFERENCE: 87-9218, Rev. 0

DESCRIPTION OF CHANGE:

This modification adds fire protection (sprinklers) inside the modular building (Rad Sort Room) in the Central Turbine Building on Elev. 676'-0".

SUMMARY:

I. No. This modification is designed and constructed in accordance with the codes and standards referenced within FSAR Section 9.5.1.1.21. Implementation of this modification will not degrade the design or operability of the existing Fire Protection System.

II. No. This modification deals with the addition of four (4) sprinklers to the Rad Sort Room and does not alter the design intent of the Turbine Building or its associated fire protection. In addition, the design criteria of this design change is non-quality, non-seismic and meets all the original design inputs and codes imposed on the original equipment.

III. No. The Unit 2 Technical Specification and bases have been reviewed, specifically Section 3/4.7.6.2. The Turbine Building Sprinklers System is not specifically addressed in the Technical Specifications.

SER NO.: 89-169

CROSS REFERENCE: 88-3017P, Rev. 0

DESCRIPTION OF CHANGE:

This modification adds an independent Appendix R voice powered communications system from the Control Room and/or Remote Shutdown Panel to numerous locations throughout the plant where manual actions are required to achieve safe shutdown in the event of a fire.

SUMMARY:

I. No. This communication system is a non-Class 1E system which does not perform any safety-related function.

II. No. The proposed action of adding a dedicated Appendix R voice powered communications system does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. The Appendix R voice powered communication system is a non-Class 1E system whose operability improves the plant's ability to respond to abnormal conditions, such as fires, and is designed so as to meet all applicable design criteria.

SER NO.: 89-170

CROSS REFERENCE: PMR 88-3087, Rev. 0

DESCRIPTION OF CHANGE:

This change adds low point drains to the Unit #1 Turbine Building, Unit #2 Turbine Building and SGTS Post-Accident Vent Stack sampling lines.

SUMMARY:

I. No. The PAVSSS is not considered in any accident analysis of Chapters 6 and 15 of the FSAR. This modification does not change the operation of the PAVSSS, nor does it connect the PAVSSS to any other system.

II. No. This modification adds process line low point drains at the sample pump intake and the exhaust of each panel, but does not change the process flow path. This modification does not connect the PAVSSS to any other system nor does it provide any failure mechanism to any other system.

III. No. Since this modification does not change the operation of the PAVSSS or connect the PAVSSS to any other system, the modification will not reduce the margin of safety of any system as defined in the basis for Section 3/4.11.2 of the Technical Specifications.

SER NO.: 89-171

CROSS REFERENCE: PMR 89-9059, Rev. 0

DESCRIPTION OF CHANGE:

This modification makes a Bypass permanent. This Bypass adds a time delay to the high flow and high pressure isolations of Shutdown Cooling in order to reduce the spurious isolations.

SUMMARY:

I. No. The Bypass involves inserting Agastat time delay relays into Shutdown Cooling isolation circuits. These relays are seismically and environmentally qualified, as is their mounting equipment. The increased electric load required by the additional relays has been determined acceptable. The redundancy and diversity of the Shutdown Cooling portion of the RHR system is not altered by the subject bypass. Since Shutdown Cooling is isolated during operational conditions 1 and 2, the time delay circuitry will have no effect on plant operations.

II. No. The mechanical configuration of the RHR system is not altered by the bypass and the logical operation of the system is only altered by the addition of the time delays to the high pressure and high flow isolations. No new accident or malfunction scenarios are created.

III. No. Since there are no response time requirements for high flow and high pressure instruments, the two second time delay will not affect any response time surveillances. The Bypass does not alter any setpoints for RHR Shutdown Cooling Isolation.

SER NO.: 89-172

CROSS REFERENCE: *NL-89-051, Rev. 0*

DESCRIPTION OF CHANGE:

TP-234-029 will provide limited drywell cooling during outages when Reactor Building Chillers and RBCCW are not available.

SUMMARY:

I. No. This procedure will use RBCW in an off-normal manner but will have no impact on safety-related equipment required during Conditions 4 and 5.

II. No. FSAR Section 9.2.12.3 analyses loss of RBCW. No new failures are involved. There are no significant impacts during Conditions 4 and 5.

III. No. The portions of the RBCW system and RBHVAC affected by this procedure are not covered by Technical Specifications.

SER NO.: 89-173

CROSS REFERENCE: *NL-89-052, Rev. 0*

DESCRIPTION OF CHANGE:

This bypass ensures continued power to HV-25722 to permit drywell purging during an outage of Load Center 2B210.

SUMMARY:

I. No. The bypass will be installed while in Conditions 4 or 5 only. The bypass defeats automatic isolation but this is not required in conditions 4 or 5.

II. No. This valve is not required to be operable in Conditions 4 or 5.

III. No. The Technical Specification bases for Sections 3/4.6.1.8 and 3.6.3 are not affected during Conditions 4 or 5.

SER NO.: 89-174

CROSS REFERENCE: *PMR 88-30170, Rev. 0*

DESCRIPTION OF CHANGE:

This change modifies the Control Structure chilled water controls for cooling to the emergency switchgear.

SUMMARY:

I. No. This modification adds capability to ensure operation during an Appendix "R" fire without affecting existing functions under normal or emergency conditions.

II. No. Failures in the new control circuits are bounded by failures of the system as it previously existed. Electrical separation and seismic support will be maintained.

III. No. The modifications will improve the reliability of Emergency Switchgear cooling as discussed in Technical Specifications Sections 3/4.8.3.1 and 3/4.8.3.2 by ensuring operability during an Appendix "R" fire.

SER NO.: 89-175

CROSS REFERENCE: PMR 87-3036 Rev. 0

DESCRIPTION OF CHANGE:

The Unit 2 HP Access Facility will be a permanent structure replacing the temporary trailers used for Unit 2 Access and HP facilities.

SUMMARY:

I. No. Due to the location of the U2 HP Access Facility adjacent to the southeast corner of the U2 Turbine Building, no safety related systems are in the vicinity (underground or aboveground). The support systems associated with the HP Access Facility, such as the fire protection system (FSAR Section 9.5.1), the HVAC system (FSAR Section 9.4.4.), the electrical supply system (FSAR Section 8.3.1.2) and the security lighting system (not discussed in FSAR), are not safety-related.

II. No. The Unit 2 HP Access Facility is part of the HP Program as described in FSAR Section 12.5.2.1. This is not safety related and cannot possibly affect any safety-related systems. The shielding design (reference FSAR Section 12.3) and HP procedures for using the radioactive calibration sources (reference FSAR Section 12.5) assure that exposures to individuals and the general population are within the limits of 10CFR20 and 50.

III. No. The Unit 2 HP Access Facility and associated support systems are not safety related and their failure cannot have any effect on the operation of any safety-related equipment. The only aspects of the Unit 2 HP Access Facility which could be related to any Technical Specification are the calibration sources and possible radioactive effluents. No routine radioactive effluents are expected from this building. The sealed calibration sources shall conform to Technical Specification Section 3.4.7.5. The areas where these sources are used will also conform to Technical Specification Sections 6.11 and 6.12.

SER NO.: 89-176

CROSS REFERENCE: *TP-134-029*

DESCRIPTION OF CHANGE:

This procedure provides a method of false loading the Reactor Building Chillers 1K206 A/B during Unit 1 outages, thus reducing the impact of low load operation on the chillers.

SUMMARY:

I. No. FSAR Section 9.2.12.3 discusses the Reactor Building Chilled Water System. This procedure does not adversely impact the operation of this RBCW System nor does it place the system in a condition for which it was not designed. The RBCW System serves no safety related function, except for containment isolation which will remain unaffected by this procedure. FSAR Section 9.4.2 discusses the Reactor Building Ventilation System. This procedure does not adversely impact the design of the RBHVAC System, although it does operate the system in an off normal manner. The safety related function of the RBHVAC System is to provide Secondary Containment Isolation. This function will remain unimpaired by implementation of this procedure.

II. No. FSAR Section 9.2.12.3 discusses the Reactor Building Chilled Water System and potential failures. Since Unit 1 will be in an outage during performance of this procedure, most of the accidents and malfunctions do not apply. FSAR Section 9.4.2 discusses the Reactor Building HVAC System. The only safety related function of this system is to provide Secondary Containment Isolation. This feature will remain unaffected. Implementation of this procedure ensures that adequate cooling is provided, although the building temperature may be slightly higher depending on outdoor ambient conditions. In no case will design temperatures be exceeded.

III. No. The portions of the Reactor Building Chilled Water Sytem and Reactor Building Ventilation System affected by this procedure are not covered by any Technical Specification. The Secondary Containment Isolation function will not be affected. Also, the RBCW System will continue to provide cooling to the drywell. There is no Technical Specification requirements on drywell temperature during Conditions 4 or 5.

SER NO.: 89-177

CROSS REFERENCE: NL-89-025, TP-155-010

DESCRIPTION OF CHANGE:

The test will measure leakage through the CRD Seismic Island Check Valves. Leakage will be measured by introducing accident pressure (greater than 45 psig) to the reactor side of each check valve separately. The purpose of this test is to verify that a 30 day water seal on the CRD piping still exists.

SUMMARY:

I. No. The test will verify that the required 30 day water seal will exist on the CRD piping post-LOCA. A water seal is used to eliminate the potential of secondary containment bypass leakage per FSAR Section 6.2.3.2.3.

II. No. The test is performed on a section of Q piping with non-Q piping connected at either end. Post-accident, the CRD non-Q piping is not considered to be intact. The test verifies that the check valves will perform their required function post-LOCA.

III. No. The test is performed in condition 3, 4 or 5. The CRD system is not required to be operable in shutdown conditions. Margin of safety for the CRD system is not reduced during the performance of this test.

SER NO.: 89-178

CROSS REFERENCE: NL-88-008, TP-062-024

DESCRIPTION OF CHANGE:

This safety evaluation is for Hydrolaze Cleaning of the Unit 2 Reactor Pressure Vessel Feedwater and Core Spray Nozzle Thermal Sleeve areas in accordance with TP-062-024.

SUMMARY:

I. No. Potential accidents as listed in FSAR Chapter 15 will not occur because the Reactor Pressure Vessel is defueled, depressurized, and in Condition 5.

II. No. Possible damage to the thermal sleeve area has been evaluated and it has been determined that the process is acceptable. No damage to the feedwater sparger, nozzle or thermal sleeve area will result if minimum pressure is used and the hydrolaze equipment is inserted no deeper than 20 inches into the thermal sleeve area. Core spray is less susceptible to damage and the same controls will be used.

III. No. Since the Reactor Pressure Vessel will be in Condition 5, the reduction of the margin of safety can only be affected by loose parts in the plant upon startup. Each joint of the hydrolaze equipment will be mechanically connected with safety cables and welded at each connection to prevent separation of the reactionless lance sections. In addition, a material inventory of the equipment prior to and after hydrolaze will be conducted. These controls will prevent loose parts form the hydrolazing process.

SER NO.: 89-179

CROSS REFERENCE: PMR 89-9061

DESCRIPTION OF CHANGE:

This modification replaces the existing valves with a suitable replacement on the Reactor Water Cleanup vent valves and drain valves for the "A" Reactor Water Cleanup Pump.

SUMMARY:

I. No. Per section 5.4.8 the vent and drain valves to the Reactor Water Cleanup Pumps are not included within the scope of the FSAR. The replacement of these valves will not affect the design or operation of the Reactor Water Cleanup System, nor its associated instrumentation and controls.

II. No. This modification does not affect the design, function, or operation of the Reactor Water Cleanup System. Consequently, this modification does not create a possibility for an accident or malfunction of a different type than those previously evaluated in the FSAR.

III. No. The vent and drain valves to the Reactor Water Cleanup Pumps are not included within the scope of the Technical Specifications. This modification has no affect on the operability or design function of the Reactor Water Cleanup system.

SER NO.: 89-180

CROSS REFERENCE: NL-89-010
Bypass

DESCRIPTION OF CHANGE:

This Bypass adds electrical jumpers from the Zone III isolation logic to the Zone II isolation logic due to loss of Zone II Recirc Isolation damper seal integrity.

SUMMARY:

I. No. The jumpers cause Zone II to isolate whenever Zone III isolates. This could result in either a two zone or three zone draw down. All of the possible configurations are possible configurations for other events previously analyzed and are all tested configurations.

II. No. Tieing Zone II to Zone III does no more than extend the isolation boundary and increase the Secondary Containment volume for Zone III isolations. The extended boundary/increased volume will be the same boundary/volume as previously analyzed and tested for other events. Although increasing the contaminated area within Secondary Containment is undesirable for post event cleanup, there is no increased risk to the public (the off-site dose is actually decreased slightly).

III. No. The Secondary Containment is designed to minimize any ground level release of radioactive material from an accident and that the SGTS ensures sufficient iodine removal for a LOCA. Secondary Containment is maintained and the function of SGTS is not impacted since it is designed and tested for all of the Secondary Containment configurations possible under this bypass. Also, Secondary Containment trip setpoints or instrumentation response times are unaffected by this bypass.

SER NO.: 89-181

CROSS REFERENCE: NL-89-006, Rev. 0
TP-161-020

DESCRIPTION OF CHANGE:

The proposed action involves a flush of radioactive residue existing within the Recirc to RWCU suction drain lines, and the vessel bottom head drain line. The reactor recirculation to RWCU suction drain shall be flushed into the drywell sumps, while the vessel bottom head drain line shall be flushed into the drywell equipment drain tank (DWEDT).

SUMMARY:

I. No. This procedure throttles "two inch" dead leg drain lines to flush hotspot residue into the drywell sumps/DWEDT. The potential for large water inventory losses from the RPV is minimal because vessel level and drywell sump/DWEDT levels will be monitored while the valves are open, the isolation capability is not impaired in that the operator can just close the isolation drain valve, and the flushes are of a short duration (approximately one minute) using vessel water head as the driving force.

II. No. This procedure involves operating equipment in its designated mode of operation while it is classified as a OPDRV. The necessary precautions are taken to prevent draining the vessel. FSAR Section 6.3.1.1.1 encompasses vessel coolant losses of this magnitude.

III. No. The intended action is simply a "dead leg" flush done in compliance with all relevant sections of the Technical Specifications, and does not invoke any changes to system functions. The proposed action is categorized as an OPDRV and all necessary precautions will be taken to prevent draining the vessel.

SER NO.: 89-182

CROSS REFERENCE: NL-89-014
Bypass 1-89-021

DESCRIPTION OF CHANGE:

This bypass adds time delay relays to the high flow and high pressure isolations of RHR Shutdown Cooling in order to reduce spurious system isolations. The bypass will be in effect during the Unit 1 4RIO and will be removed prior to entering Operational Condition 2 following the outage.

SUMMARY:

I. No. The redundancy and diversity of the Shutdown Cooling portion of the RHR System as described in FSAR Sections 5.4.7, 7.4.1.3 and 7.6.1a.3 has not been altered by the proposed Bypass. The ability of the RHR System to isolate the shutdown cooling line under high flow or high pressure conditions in the presence of a single failure caused by one of the additional relays will not be altered by the Bypass. The addition of the extra time delay relays by the subject Bypass will not increase the probability of the Shutdown Cooling Isolation failing when it is required to isolate on high pressure or high flow conditions.

II. No. The installation of the proposed Bypass will not alter the mechanical configuration of the RHR System. The logical operation of the system is only altered by adding time delays to the high pressure and high flow isolations.

III. No. The Bypass does not alter any setpoints contained in Technical Specification Table 3.3.2-2 for RHR Shutdown Cooling isolation. Since no response time requirements are contained in Technical Specification Table 3.3.2-3 for the high flow and high pressure instruments, the addition of a two second time delay will not affect any response time surveillances.

SER NO.: 89-183

CROSS REFERENCE: NL-89-032, Rev. 0

DESCRIPTION OF CHANGE:

This procedure tests the check valves on all 185 HCU's simultaneously to determine that LOCA leakage would not significantly raise reactor building radiation levels.

SUMMARY:

I. No. FSAR Section 15.7.2.1, addresses small spills and states that they are bounded by postulated leakages, i.e. feedwater line break. The effect of these small spills are negligible and are covered under FSAR Chapter 11.0. With operations manning the valves, with HP support, and with secondary containment in effect, the probability or the consequences of an accident are not increased.

II. No. FSAR Section 15.6 addresses decreases in reactor coolant inventory and this test is bounded by the analysis of small break LOCA referenced in FSAR Section 6.3.

III. No. Technical Specification 3.5.2 applies to LOCA's and for this test both loops of LPCI will be operable.

SER NO.: 89-184

CROSS REFERENCE: 89-707, Rev. 0

DESCRIPTION OF CHANGE:

This bypass changes the Secondary Containment isolation logic so that loss of seal integrity for any of the Zone I Recirc Plenum Isolation Dampers (listed below) does not affect the ability of Secondary Containment and SGTS to perform their intended safety functions.

SUMMARY:

I. No. The jumpers cause Zone I to isolate whenever Zone III isolates. This could result in either a two zone or three zone draw down. All of the possible configurations are possible configurations for other events previously analyzes and are all tested configurations per review of FSAR Sections 6.2.3, 6.5.1.1, 9.4.2, 15.6.2, 15.7.4, Appendix 9A and 15A.

II. No. Tieing Zone I to Zone III does not more than extend the isolation boundary and increase the Secondary Containment volume for Zone III isolations. The extended boundary/increased volume will be the same boundary/volume as previously analyzed and tested for other events.

III. No. Bypass does not affect any Secondary Containment trip setpoints or instrumentation response times as reviewed in Technical Specifications 3/4.3.2, 3/4.6.5.1, 3/4.6.5.2 and 3/4.6.5.3.

SER NO.: 89-185

CROSS REFERENCE: PMR 89-9064, Rev. 0

DESCRIPTION OF CHANGE:

This modification removes supports GBB-118-H22 and H23 from RHR containment spray valve HV-F021B thru the use of multi-level response spectra analysis for the chugging loadcase and Code Case 411 curves for the other dynamic loads. With these supports removed, the pipe stress, support loads and G values on the valve operator are all within allowable limits.

SUMMARY:

I. No. Section 6.2.2.2 of the FSAR states that all portions of the containment cooling system are designed to withstand loads resulting from natural phenomena. A reanalysis and calculation shows that the system can withstand all loads with these two supports removed, and demonstrates valve operability and integrity.

II. No. Our calculations were reanalyzed for all loading conditions and the results were within allowables.

III. No. The containment spray mode of RHR is not defined in the Technical Specifications nor their bases, however, it is required for certain accident situations. The margin of safety has been maintained as demonstrated by the calculations referenced above.

SER NO.: 89-186

CROSS REFERENCE: NL-89-003, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation addresses the safety significance of the graphite valve packing program.

SUMMARY:

I. No. The changeover to graphite packing will increase the reliability of the stem seals throughout the plant and thereby reduce stuffing box leakage throughout the plant.

II. No. The implementation of the graphite packing program will increase the effectiveness of valve stem seals throughout the plant and, at the same time, will not adversely affect operability of any power actuated valve. Therefore, the proposed action does not create the possibility for an accident or malfunction of a different type than any previously evaluated in Chapter 15 of the FSAR.

III. No. Technical Specifications 3.4.3.2, 3.6.1.2 and 3.6.3 were reviewed for reactor coolant system leakage limits, primary containment leakage and primary containment isolation valves respectively. The changeover to graphite packing will not adversely affect any of these limits.

SER NO.: 89-187

CROSS REFERENCE: NL-89-029, Rev. 0

DESCRIPTION OF CHANGE:

The proposed bypass is for installing position indication from HPCI Test Line to CST isolation valve and connecting for GETARS readout. This bypass is to be used to obtain position indication of the valve during a system quick start.

SUMMARY:

I. No. The proposed bypass does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment related to safety as previously evaluated in the FSAR.

II. No. The only malfunction of concern that could be proposed would be the failure of the full valve to close. The HPCI system effects of such a failure would be the same regardless of the initiating event.

III. No. Since the proposed bypass does not reduce the HPCI system's ability to perform its design function the margin of safety as defined in the basis for Technical Specification 3/4.5.1 is not reduced.

SER NO.: 89-188

CROSS REFERENCE: NL-89-030, Rev. 0

DESCRIPTION OF CHANGE:

This bypass will provide the means to cross-tie the Instrument Air (I-A) system to the C.I.G. 90# Header when required.

SUMMARY:

I. No. Failure of this bypass will not increase the effects of an failure of both C.I.G. compressors as evaluated in Section 9.3.1.5.3 and Table 9.3.9 of the FSAR. Failure of the non-safety related portion of C.I.G. does not impair the operation of ESF Systems or the integrity of containment isolation during the accidents described in Chapter 15 of the FSAR. This bypass decreases the probability of challenging these evaluations.

II. No. The C.I.G. system supplies both safety related and non-safety related functions. This bypass will be on the non-safety related portions of the C.I.G. system. The bypass will not alter the design criteria of the system but will increase the reliability of the components it supplies by providing a backup source of compressed gas. No safe shutdown path or safety related components are affected.

III. No. The C.I.G. 90# header does not serve any safety function and its failure will not prevent the safe shutdown of the plant. This bypass will provide operations with a backup supply of compressed gas to all gas operated inboard containment isolation valves and will enable them to maintain operability of these valves per Technical Specification 3.4.7 and 3.6.3.

SER NO.: 89-189

CROSS REFERENCE: MT-035-002, Rev. 1

DESCRIPTION OF CHANGE:

This evaluation assesses the safety of the removal of the Lower Cavity Seal Ring in Unit 1 or 2. Removal of this Seal Ring results in a cross-tie between Reactor Building Zone III and Zone I (Unit 1) or Zone III and Zone II (Unit 2).

SUMMARY:

I. No. The probability of occurrence of an accident or malfunction is not changed by installation of jumpers and removal of the Lower Cavity Seal Ring. The jumpers simply cause Zone I(II) to isolate whenever Zone III isolates. This results in either a two or three zone draw down.

II. No. Tieing Zone I(II) to Zone III does no more than extend the isolation boundary and increase the Secondary Containment volume for Zone III isolations. The extended boundary/increased volume will be the same boundary/volume as previously analyzed and tested for other events. Although increasing the contaminated area within Secondary Containment is undesirable for post event cleanup, there is no increased risk to the public (the off-site dose is actually decreased slightly).

III. No. After installing the jumpers the draw down time and SGTS flow rate will be increased for a Zone III High Radiation isolation and for an opposite unit LOCA isolation since two or three zones (vs one or two zones) will be drawn down. Although the draw down time and SGTS flowrate are increased, the off-site dose will actually be decreased slightly (i.e., increased mixing and delay). Secondary Containment is maintained and the function of SGTS is not impacted since it is designed and tested for all of the Secondary Containment configurations.

SER NO.: 89-190

CROSS REFERENCE: PMR 89-9097A, Rev. 0

DESCRIPTION OF CHANGE:

This modification adds a 300 ohm, 5 watt resistor in series with the operating coil of the Unit 2 Division I, 24V DC overvoltage relays.

SUMMARY:

I. No. This modification increase the reliability of the 24V DC system by eliminating spurious overvoltage trips.

II. No. The analyses in FSAR Sections 15.4 and 15.7 envelope the consequences of adding the resistor to the operation coil of the overvoltage relay.

III. No. This modification increases the reliability of the 24V DC system operation by wording nuisance trips of the battery charger due to equalizing voltage.

SER NO.: 89-191

CROSS REFERENCE: NL-89-052, Rev. 0

DESCRIPTION OF CHANGE:

The purpose of this evaluation is to assess the safety of performing a leakage test on the 195 HCU's simultaneously. This test will determine if LOCA leakage would significantly raise reactor building radiation levels.

SUMMARY:

I. No. FSAR Section 15.7.2.1, addresses small spills and states that they are bounded by postulated leakages, i.e. feedwater line break. The effect of these small spills are negligible and are covered under Section FSAR 11.0. With operations manning the valves, with HP support, and with secondary containment in effect, the probability or the consequences of an accident are not increased.

II. No. FSAR Section 15.6 addressed decreases in reactor coolant inventory and this test is bounded by the analysis of small break LOCA referenced in FSAR Section 6.3.

III. No. Technical Specification 3.5.2, applies to LOCA's and for this test both loops of LPCI will be operable.

SER NO.: 89-192

CROSS REFERENCE: PMR 88-3041 A&B, Rev. 2

DESCRIPTION OF CHANGE:

This modification involves the replacement of the 90/10 Cu/Ni tubes in the RBCCW heat exchangers with AL-6xN tubes. It also replaces the existing carbon steel butterfly valves used to isolate the RBCCW heat exchangers with stainless steel butterfly valves.

SUMMARY:

I. No. A discussion of the RBCCW system is included in Section 9.2.2 of the FSAR. The proposed modification will not impact the operation of the RBCCW system or any of the support systems.

II. No. This modification involves the replacement of tubes on the RBCCW heat exchangers and replacement of the heat exchanger isolation valves. The modification will not impact the operation of the system or any support systems.

III. No. The modification will not impact the operation of the RBCCW system nor any of the systems which the RBCCW system is designed to support. This modification therefore will not impact the operation of any system in the plant.

SER NO.: 89-193

CROSS REFERENCE: PMR 89-9098, Rev. 0

DESCRIPTION OF CHANGE:

This modification is a replacement of a "Q" one inch Unit 2 RCIC steam supply line pressure sensing instrument line manual isolation valve.

SUMMARY:

I. No. The valve serves no active safety function, and has the passive safety function of maintaining the RCIC system pressure boundary. The proposed replacement valve has been designed and will be installed using the original specification, requirements, and codes, and NDE and ISLT will provide assurance of system integrity. Also, piping loads and stresses have been evaluated and found to be acceptable and within code allowable limits.

Scaffolding for installation does not increase the probability or consequences of an accident or malfunction of equipment related to safety, since the RCIC and main steam instrumentation supported by these panels is not required to be operable during refueling.

II. No. The proposed modification is a replacement of a valve designed and installed under the same specification, requirements, and codes as its original valve.

III. No. The replacement valve to be installed under this DCP will meet all the design criteria of the original, and as such, the valve's passive safety function of maintaining instrument line integrity is assured, and neither availability nor operability of the RCIC isolation instrumentation can be affected.

SER NO.: 89-194

CROSS REFERENCE: PMR 89-9003, Rev. 2

DESCRIPTION OF CHANGE:

This modification involves welding cover plates over the end of the washer/nut assemblies on the stream dryer hoods to ensure that these pieces cannot become loose parts in the reactor coolant system and that the tie rod will remain in position for spacing of the baffle plates in the hoods.

SUMMARY:

I. No. FSAR Section 4.1.2.4 discusses the steam dryer. In this section the moisture removal function of the dryer is described. The proposed modification has no effect on dryer performance. The proposed modification simply prevents the washer,nuts, and tie-bar spacers from becoming loose parts. There is no effect on plant safety.

II. No. The steam dryer is a non-code, non-safety related reactor internal component. However, it is designed to maintain its integrity under a variety of design basis loads. The proposed modification has no effect on dryer gross structural performance.

III. No. The proposed modification places cover plates over the washer/nut assemblies to prevent their failures from becoming loose parts. Because the modification does not affect the dryer's gross structural performance, the margin of safety, as defined in the basis for any technical specification, is not reduced.

SER NO.: 89-195

CROSS REFERENCE: NL-89-054, Rev. 0

DESCRIPTION OF CHANGE:

This modification removes Zetex separation barrier from certain cable drops in the suppression chamber in order to stay within the suppression pool strainer debris closing limits due to an unrecovered boot in the suppression pool.

SUMMARY:

I. No. FSAR Section 8.1.6.1q15 specifically addresses and permits reduced separation of these non-1E open tray CRD circuits to the class 1E unclosed raceways for NMS circuits for the area underneath the vessel. For these same circuits the assessment is considered to valid for the free air drops in the area of the penetrations.

II. No. Given that the engineering evaluation assessed that faults/electrically generated fires in the non-1E free air cables will not propagate to or unacceptably damage cables in the totally enclosed 1E conducts greater than 12 inches away, the single failure criterion which established the accident assessments is still valid.

III. No. While the separation criteria is not specifically mentioned in the bases for any technical specification, it is inherent in the assignment of LCO's based on amount of equipment that requires to meet the single failure criterion. Since faults/electrically induced fires have been assessed not to affect the NMS channel circuits with Zetez not in place and containment deinerted, margin of safety per Technical Specification Sections 3/4.3.1 and 6.6.3 is not reduced.

SER NO.: 89-196

CROSS REFERENCE: NL-89-028

DESCRIPTION OF CHANGE:

This change installs a bypass (jumper) to permit relay contract maintenance by performed on an NSSS manual. Isolation logic relay. The purpose is to prevent inadvertent primary and secondary containment isolation from occurring on Division I during an outage.

SUMMARY:

I. No. The bypass will be performed during an outage (condition 5) when primary containment is not required to be maintained. In addition bypass will not be installed when secondary containment is required in the outage (condition * - handling irradiated fuel in secondary containment and during core alternations).

II. No. The bypass will only remove manual isolation capability for Division I during a period when it is not required.

III. No. Secondary containment technical specifications basis and isolation actuation instrumentation technical specification basis are not affected by this bypass.

SER NO.: 89-197

CROSS REFERENCE: SCP J891025

DESCRIPTION OF CHANGE:

This modification changes the RHR minimum flow bypass valve time delay relay setpoint. The purpose is to prevent unnecessary valve opening and loss of vessel inventory during the shutdown cooling mode of RHR. The time delay setting is changed from 10 seconds to 30 seconds to permit operator action to prevent inadvertent minimum flow valve opening.

SUMMARY:

I. No. The setpoint change does not alter the function of the RHR minimum flow bypass valve nor result in malfunction of the RHR pumps.

II. No. The change only affects the amount of time a low flow signal must be present before the minimum flow valves automatically open.

III. No. The setpoint change has no affect on the valves performance as primary containment isolation valves or on the performance of the RHR system.

SER NO.: 89-198

CROSS REFERENCE: SCP J891026

DESCRIPTION OF CHANGE:

This modification changes the RHR minimum flow bypass valve time delay relay setpoint. The purpose is to prevent unnecessary valve opening and loss of vessel inventory during the shutdown cooling mode of RHR. Time delay setting is changed from 10 seconds to 30 seconds to permit operator action to prevent inadvertent minimum flow valve opening.

SUMMARY:

I. No. The setpoint change does not alter the function of the RHR minimum flow bypass valve nor result in malfunction of the RHR pumps.

II. No. The change only affects the amount of time a low flow signal must be present before the minimum flow valves automatically open.

III. No. The setpoint change has no affect on the valves performance as primary containment isolation valves or on the performance of the RHR system.

SER NO.: 89-199

CROSS REFERENCE: PMR 87-9223

DESCRIPTION OF CHANGE:

This modification provides fire protection spray coverage for five non-safety related cables in the Reactor Building. Existing manual hose reel protection is inadequate.

SUMMARY:

I. No. This modification enhances stations ability to extinguish a fire in non-safety related cables. Design of the modification is in accordance with required codes and resulting water sprays will not contact safety related equipment.

II. No. The design change is non-quality, non-seismic and meets all the original design inputs and codes.

III. No. This modification will not degrade or jeopardize the existing wet standpipe system and subsequently any fire hose station.

SER NO.: 89-200

CROSS REFERENCE: PMR 88-3016A

DESCRIPTION OF CHANGE:

This modification provides water sprinklers and curb for control structure chillers to meet fire protection requirement of 10CFR50, Appendix R for safe shutdown equipment.

SUMMARY:

I. No. The addition of the curb and sprinklers decreases the probability of occurrence or the consequences of an accident or malfunction of equipment by additional fire protection. Pipe supports are designed as safety impact item supports and the sprinkler system hydraulics have been evaluated and determined to be satisfactory.

II. No. The additional sprinklers are supplied by a preaction sprinkler systems thus there is no water in the system during normal operation. Water damage has been analyzed from the spray impact resulting in an additional modification to protect HVAC Control Panels.

III. No. The fire protection sprinkler system hydraulics have been reviewed and confirmed not to be compromised by the addition of the new sprinklers. The margin of safety is increased by the additional sprinklers protection for the safe shutdown equipment chillers.

SER NO.: 89-201

CROSS REFERENCE: DCP 88-3041 A&B

DESCRIPTION OF CHANGE:

This modification replaces the RBCCW heat exchanger tubes with AL-6xN tubes. It also adds epoxy coating to the tubesheets, channels, partitions plates and covers and reduces maximum service water inlet temperature from 95°F to 90°F based on analysis.

SUMMARY:

I. No. The proposed modification will not impact the operation of the RBCCW system or any of the support systems.

II. No. Modification is a replacement of tubes which will not impact the operation of the system or any support systems.

III. No. The modification will not impact the operation at any system in the plant.

SER NO.: 89-202

CROSS REFERENCE: PMR DCP88-3042 A&B

DESCRIPTION OF CHANGE:

This modification replaces the RBCCW heat exchanger tubes with AL-6xN tubes. It also adds epoxy coating to the tubesheets, channels, partitions plates and covers and reduces maximum service water inlet temperature from 95°F to 90°F based on analysis.

SUMMARY:

I. No. The proposed modification will not impact the operation of the RBCCW system or any of the support systems.

II. No. Modification is a replacement of tubes which will not impact the operation of the system or any support systems.

III. No. The modification will not impact the operation at any system in the plant.

SER NO.: 89-203

CROSS REFERENCE: PMR 89-9034

DESCRIPTION OF CHANGE:

This modification installs new void history correlation software in Powerplex Core Monitoring System to support Unit 1 Cycle 5 operation.

SUMMARY:

I. No. Physical plant operation is independent of the powerplex CMS and the changes made to powerplex will be tested and verified to be correct. All powerplex computer inputs are derived from non-class 1E circuits.

II. No. The implementation is required to assure the monitoring system is consistent with the licensing analysis for U1C5.

III. No. The revised correlation provides a more accurate replication of void history.

SER NO.: 89-204

CROSS REFERENCE: NL 89-009, PMR 87-9128

DESCRIPTION OF CHANGE:

The test procedures supports 125V DC Battery Bank replacements being accomplished under PMR 87-9128. A single "Enhanced Performance Test" will be performed that demonstrates both the battery's ability to deliver its rated capacity and to supply the design basis load profile.

SUMMARY:

I. No. The Enhanced Performance Test will demonstrate that 125V DC batteries have sufficient capacity to supply their required loads for four hours and are at least 80% of manufacturer capacity rating.

II. No. The batteries will be tested to demonstrate sufficient capacity to power the actual battery loads thus enabling them to perform their intended design function.

III. No. The Enhanced Performance Test is in compliance with the Technical Specifications for demonstrating operability of the 125V DC Battery Banks.

SER NO.: 89-205

CROSS REFERENCE: NL-89-011

DESCRIPTION OF CHANGE:

This bypass installs strip chart recorders to monitor parameters suspect for shutdown cooling isolations. The information gathered while shutdown cooling is initiated will assist in dealing with transients which have caused previous shutdown cooling isolations.

SUMMARY:

I. No. This equipment and instruments affected by this bypass are not made inoperable by implementation of the bypass. All isolations and permissives remain intact and operable. The monitoring equipment is only temporary and will be removed from the plant once data is collected which identified the source of SDC isolations.

II. No. Per FSAR Section 7.4.1.3.1.1, SDC is the non-safety related portion of RHR system. FSAR Section 7.4.1.3.5.3 says there are no safety isolated setpoints associated with SDC other than the high pressure/low pressure interlocks. Also, FSAR Section 7.6.1a.4.3.4 discusses the redundancy and diversity of the instrumentation utilized for SDC isolation. This redundancy and diversity is not affected by this bypass.

III. No. The reactor pressure and high flow isolation instrumentation is not effected due to the manner in which the temporary instrumentation will be installed. Since multiple concurrent failures would be required to result in loss of an automatic isolation of a primary containment penetration the probability of this occurring is minimal.

SER NO.: 89-206

CROSS REFERENCE: OP-205-004, Rev. 4

DESCRIPTION OF CHANGE:

This change provides temporary power to maintain Zone III and containment isolation operability during an outage on Load Center 2B230.

SUMMARY:

I. No. Electrical Separation is being maintained and all required safety functions will operate as designed.

II. No. All failure modes were evaluated. No new failures were identified.

III. No. The proposed alternate power provides equivalent protection and capabilities with no loss of function.

SER NO.: 89-207

CROSS REFERENCE: PMR 89-3032, Rev. 1

DESCRIPTION OF CHANGE:

This modification replaces cracked offgas recombiner condenser shell with one of a material resistant to IGSCC.

SUMMARY:

I. No. The design will be the same. The material will reduce the probability of cracking.

II. No. Except for material no change is involved. The new material is more resistant to cracking.

III. No. The materials will not affect the system performance as discussed in the bases for Technical Specifications Section 3/4.11.2.

SER NO.: 89-208

CROSS REFERENCE: TP-159-008 and TP-259-008

DESCRIPTION OF CHANGE:

This safety evaluation addresses the use of the Preferred Engineering (P.E.) Main Steam Line (MSL) Plugs and performance of TP-159-008 (TP-259-008). Use of the P.E. MSL Plugs is with fuel in or out of the RPV and performance of TP-159-008 (TP-259-008) at a maximum MSL pressure of 45.5 psig.

SUMMARY:

I. No. There are no accidents or malfunctions in the FSAR that are specifically related to the MSL Plug. The specific event analyzed in the FSAR covering objects falling onto the core is the fuel handling accident described in Section 15.7.4. Other load drop accidents have been evaluated under PP&L's response to NUREG-0612. While these events are not specifically referenced in the FSAR, they have been performed under the guidelines of PP&L's Heavy Loads program which has been reviewed and accepted by the NRC. Since the P.E. MSL Plug is used for testing at the LLRT pressure, it is subject to ejection due to improper installation or component failure and, therefore, would be able to fall on the core, however, the MSL Plug is prevented from falling on the core when ejected by design.

II. No. The MSL Plug has been demonstrated by analysis to remain intact during a seismic event. The seismic analysis assumes that the plug is correctly installed per the P.E. plug installation procedure and is maintained in a correct installation by verification of proper rubber disc pressure prior to LLRT pressurization. Prior to disassembly of an SRV, an inboard MSIV or opening of both MSIV's, the plugs must be verified to be correctly installed. It is also designed to limit leakage from the reactor cavity through the MSL to less than 150 gpm, which is within the makeup capability available with irradiated fuel in the RPV or in the spent fuel pool with the gates removed. With all of the fuel in the spent fuel pool and the gates installed the reactor cavity is isolated from the spent fuel pool.

III. No. No specific Technical Specification exists concerning the Main Steam Line Plugs; however, Technical Specification 3/4.9.8 requires that a minimum water level of 22 feet be maintained above the reactor vessel flange. The modified/upgraded MSL Plug is designed so as to limit flow past the plug to less than 150 gpm if both the primary and secondary seals were to fail. This leakage value is within the makeup capability of plant systems available through implementation of plant off normal procedures.

SER NO.: 89-209

CROSS REFERENCE: PMR 88-3017R, Rev. 0

DESCRIPTION OF CHANGE:

These changes are Appendix "R" modifications to add a control bypass switch for Core Spray Inboard Injection shut-off valves H-E21-1F005 A&B.

SUMMARY:

I. No. This change is necessary due to Appendix "R" concerns. This modification significantly reduces the probability of core damage due to transients with scram.

II. No. All possible single failures of this switch are bounded by failures analyzed in FSAR Section 6.3.2.5 and FSAR Table 6.3-5.

III. No. Addition of the switches has no impact on the core spray system functions of testing as discussed in Technical Specifications B3/4.5.1 and B3/4.5.2.

SER NO.: 89-210

CROSS REFERENCE: PMR 88-30180, Rev. 0

DESCRIPTION OF CHANGE:

This change adds an independent voice powered communications system for Appendix "R".

SUMMARY:

I. No. The new system is not safety-related and has no effect on any safety-related system.

II. No. Cable installations are seismic and independent from all Class 1E raceways.

III. No. The system is not covered by any Technical Specifications.

SER NO.: 89-211

CROSS REFERENCE: PMR 88-3018L, Rev. 1

DESCRIPTION OF CHANGE:

This change modifies the Unit 2 Emergency Switchgear Dx cooling control circuits for Appendix "R".

SUMMARY:

I. No. This modification adds capability to ensure operation of Dx units during an Appendix "R" fire without affecting existing functions under normal or emergency conditions.

II. No. Failures in the new control circuits are bounded by failures of the system as it previously existed. Electrical separation and seismic support will be used.

III. No. This modification will improve the reliability of Emergency Switchgear Cooling as discussed in Technical Specifications Sections 3/4.8.3.1 and 3/4.8.3.2 by ensuring operability during an Appendix "R" fire.

SER NO.: 89-212

CROSS REFERENCE: PMR 88-3069, Rev. 0

DESCRIPTION OF CHANGE:

This modification adds piping extensions to Service Air to connect a temporary compressor outside the turbine building.

SUMMARY:

I. No. Per FSAR Section 9.3.1, service air has no safety function.

II. No. Per FSAR Section 9.3.1, service air has no safety function. Failure of service air when supplying instrument air is analyzed in FSAR Section 9.3.1.1.3.

III. No. Service air is not addressed by Technical Specifications.

SER NO.: 89-213

CROSS REFERENCE: NL-89-041, Rev. 0

DESCRIPTION OF CHANGE:

This change evaluates the use of the Mini-Rover in the Reactor Vessel, Fuel Pool or Equipment Pool in conjunction with ISI invessel inspections and related activities.

SUMMARY:

I. No. The worst case scenario for the Mini-Rover would be if it crashed into fuel. Section 15.7.4 of the FSAR was examined. This section explores the effects of dropping a fuel bundle on the core. The possible momentum achievable by the vehicle is within the bounds of the parameters set forth in the FSAR.

II. No. The Mini-Rover does not crate a possibility of an accident not evaluated in the FSAR. The only concerns (loose parts, control, component damage, and materials) have been minimized and are within programmatic control.

III. No. The Technical Specifications have been reviewed, and the Mini Rover does not affect instrumentation, control rod position, communications, refuel platform function, reactor/fuel pool water level, or reactor/fuel pool water temperature.

SER NO.: 89-214

CROSS REFERENCE: PMR 89-0982, Rev. 0

DESCRIPTION OF CHANGE:

This modification designs and installs tubing elbow fittings with orifices in the 10 Unit 1 Containment Vacuum Relief Valves.

SUMMARY:

I. No. The proposed action via this modification will return these valves to the configuration addressed in NUREG 0776 by installing new elbows with orifices on the valve actuating cylinders.

II. No. The proposed action returns the valves to their configuration as stated in Section 6.2.1..8.h of NUREG 0776. This original configuration was analyzed as described in the FSAR and NUREG 0776.

III. No. The basis for the Unit 1 Technical Specification Section 3/4.6.4 relating to the proposed action is described in NUREG 0776, Section 6.2.1.8.h. The vacuum relief valves were originally modified as described in this section. The proposed action restores the valves to the configuration described in Section 6.2.1.8.h or NUREG 0776.

SER NO.: 89-215

CROSS REFERENCE: PMR 88-3064

DESCRIPTION OF CHANGE:

This change provides a monorail system above the circulating water outlet riser piping shield plugs (Elevation 699'-91/4"). The purpose of the monorail system is to move the shield plugs, expansion joints and the outlet riser piping top blind flanges.

SUMMARY:

I. No. The monorail system is non-safety related. Safety impact has been evaluated and dispositioned as not being possible. The monorail system design conforms to the appropriate American Institute of Steel Construction (AISC) and American Concrete Institute (ACI) codes; both of which are principal construction codes for the Turbine Building.

II. No. This modification does not change the intent or alter the operation of any safety-related equipment.

III. No. The monorail system is considered a non-Q maintenance tool. The monorail system does not affect any other plant component, or system (other than it being attached to the Turbine Building superstructure). The relocation of the instrument tubing signal lines to valves LC20212A and LV20214A does not affect the configuration on the P&ID's nor does it affect the configuration or operation of the extraction steam system.

SER NO.: 89-216

CROSS REFERENCE: PMR 88-3063

DESCRIPTION OF CHANGE:

This change increases the height of doorway 228 (Turbine Building, Elev. 699') from 7'-2" to 9'-10". The purpose of modifying the doorway is to allow access for routing of new circulating water expansion joints into the T.B. Condenser Bay Area.

SUMMARY:

I. No. The turbine Building and the modifications performed to the building are considered non-safety related. The modifications to the unscheduled electric conduits are also considered non-safety related. These modifications have no safety related functions and do not contain or interface with any safety related equipment, systems, components or structures.

II. No. The only effect this modification will have on adjacent components is from a safety impact consideration. As there are no safety-related components located in the area of thee modifications, there is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR. Increasing the height of the doorway will not cause a detrimental effect to the HVAC system.

III. No. The structural modifications to the doorway will not affect any plant systems. The two unscheduled electrical conduits do not have a safety related function and are not used by any plant systems. Both of these conduits are routed to radiation signs that have been made nonfunctional. This modification will remove the unscheduled conduits and both radiation signs. No Technical Specifications are involved and the margin of safety has not been reduced.

SER NO.: 89-217

CROSS REFERENCE: NL-89-043, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation is for operation of the Reactor Building Chilled Water System (RWCWS) with trace amounts of Na-24 contamination.

SUMMARY:

I. No. The system will operate the same as before since the low levels of contamination present will not degrade any components.

II. No. The only probable consequence of operating the chilled water system with the low level of Na-24 contamination is an unmonitored release to the environment. This is no different than the potential unmonitored release evaluated in Section 15 of the FSAR. The consequences of this potential release is less than those analyzed previously.

III. No. The potential dose consequences from the action are all well below the Technical Specifications limit of 15 mrem/yr.

SER NO.: 89-218

CROSS REFERENCE: NL-89-037, Rev. 0

DESCRIPTION OF CHANGE:

The proposed action is to measure leakage through the CRD Seismic Island Check Valves to verify that a 30 day water seal on the CRD piping still exists.

SUMMARY:

I. No. The proposed action is to verify that the required 30 day water seal will exist on the CRD piping post-LOCA. A water seal is used to eliminate the potential of secondary containment bypass leakage per FSAR Section 6.2.3.2.3.

II. No. The proposed action is performed in a section of Q piping with non-Q piping connected at either end. Post-accident, the CRD non-Q piping is not considered to be intact. The test verifies that the check valves will perform their required function post-LOCA.

III. No. The proposed action is performed in conditions 3, 4 or 5. The CRD system is not required to be operable in shutdown conditions. Margin of safety for the CRD system is not reduced during the performance of this test.

SER NO.: 89-219

CROSS REFERENCE: NL-89-042, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation assesses flushing radioactive residue existing within the Recirc to RWCU suction drain lines and the vessel bottom head drain line.

SUMMARY:

I. No. The potential for larger water inventory losses from the RPV is minimal because (a) Vessel level and drywell SUMP/DWEDT levels will be monitored while the valves are open. (b) The isolation capability is not impaired since the valves are manually operated. (c) The suction valve of reactor recirc. line can be closed to isolate the vessel. (d) The flushes will be of short duration (less than a minute) to prevent any large inventory losses and to safeguard against over-filling the drywell SUMPS/DWEDT.

II. No. This procedure involves operating equipment in its designated mode of operation. While it is classified as a OPDRV, the necessary precautions are taken to prevent draining the vessel. FSAR Section 6.3.1.1.1 encompasses vessel coolant losses of this magnitude, i.e., - the double ended break of the recirculation suction line.

III. No. As required by AD-QA-326 (Operations with a Potential for Draining the Reactor Vessel), this procedure complies with the following Technical Specification Sections: 3.6.5.3, 3.6.5.1, 3.6.5.2 and 3.5.3. Included within the body of the procedure shall be a sign-off to confirm compliance with these requirements. The entire evolution shall be controlled subject to Operations approval with the necessary actions per AD-QA-326.

SER NO.: 89-220

CROSS REFERENCE: NL-89-010, Rev. 1

DESCRIPTION OF CHANGE:

This change evaluates the bypass of the electrically jumper from the Zone III isolation logic to the Zone II isolation logic due to loss of the Zone II to Zone III boundary integrity (including openings between Zones II & III maintained open in support of specific work activities and any loss of seal integrity for the Zone II Recirc Isolation dampers).

SUMMARY:

I. No. The probability of occurrence of an accident or malfunction is not changed by installation of this bypass. The jumpers simply cause Zone II to isolate whenever Zone III isolates.

II. No. Tying Zone II to Zone III does no more than extend the isolation boundary and increase the Secondary Containment volume for Zone III isolations. The extended boundary/increased volume will be the same boundary/volume as previously analyzed and tested for other events. Although increasing the contaminated area within Secondary Containment is undesirable for post event cleanup, there is no increased risk to the public (the off-site does is actually decreased slightly).

III. No. Secondary containment is maintained and the function of SGTS is not impacted since it is designed and tested for all of the secondary containment configurations possible under this bypass.

SER NO.: 89-221

CROSS REFERENCE: NL-89-031, Rev. 1

DESCRIPTION OF CHANGE:

This change evaluates bypass of the electrical jumper from the Zone III isolation logic to the Zone I isolation logic due to loss of the Zone I to Zone III boundary integrity.

SUMMARY:

I. No. The probability of occurrence of an accident or malfunction is not changed by installation of this bypass. The jumpers simply cause Zone I to isolate whenever Zone III isolates.

II. No. Tying Zone I to Zone III does no more than extend the isolation boundary and increase the Secondary Containment volume for Zone III isolations. The extended boundary/increased volume will be the same boundary/volume as previously analyzed and tested for other events. Although increasing the contaminated area within Secondary Containment is undesirable for post event cleanup, there is no increased risk to the public (the off-site does is actually decreased slightly).

III. No. Secondary containment is maintained and the function of SGTS is not impacted since it is designed and tested for all of the secondary containment configurations possible under this bypass.

SER NO.: 89-222

CROSS REFERENCE: PMR 88-3065, Rev. 0

DESCRIPTION OF CHANGE:

This change replaces circulating water piping expansion joints.

SUMMARY:

I. No. The circulating water piping serves no safety-related function. The new joint will improve the reliability of the piping boundary.

II. No. Rupture of the circulating water piping is analyzed in FSAR Section 10.4.1.3.3.

III. No. The components involved are not addressed by Technical Specifications.

SER NO.: 89-223

CROSS REFERENCE: NL-89-031

DESCRIPTION OF CHANGE:

This bypass changes the secondary containment isolation logic so that loss of seal integrity for any of the Zone I recirculation plenum isolation dampers does not affect the safety functions of SGTS or secondary containment.

SUMMARY:

I. No. This modification will reduce the off-site consequences of certain LOCA events. It will have no other impacts except increased contamination of the adjacent unit reactor building.

II. No. This modification extends the isolation boundary but reduces off-site doses.

III. No. This modification results in a slower draw down time for secondary containment. The bases for Technical Specifications relate to off-site releases which will be reduced.

SER NO.: 89-224

CROSS REFERENCE: PMR 89-9060, Rev. 0

DESCRIPTION OF CHANGE:

This modification adds a time delay to shutdown cooling isolation for high flow or high pressure to reduce spurious isolations.

SUMMARY:

I. No. These time delays will not affect any safety-related analyses in the FSAR. They will reduce the probability of spurious trips of shutdown cooling.

II. No. The design change meets the single failure criteria. No new failure mechanisms are being introduced.

III. No. The Technical Specifications bases do not address the portions of the design affected by this modification. Allowable valve stroke times will be met including these delays.

SER NO.: 89-225

CROSS REFERENCE: DCP 87-9202, Rev. 0

DESCRIPTION OF CHANGE:

This modification installs two manual isolation valves at the feedwater heat common drain header for each of the nine feedwater heaters which connect the feedwater heat shell side condensing section and subcooling section (i.e. internal drain subcooler) with the equipment drain pipe to the Liquid Radwaste System.

SUMMARY:

I. No. FSAR Section 10.4.7.1 states that the feedwater system has no safety-related function. The feedwater heaters and associated pipings affected by the proposed action are the portion of feedwater system located upstream of the outermost containment isolation valve, and are not essential for safe shutdown of the plant in accordance with FSAR Section 10.4.7.3. Since the proposed action will stop the bypass flow via the heater common drain header, which is a flowpath not considered to be part of the design bases, the proposed action will restore the feedwater heater to conform to the original design bases. The proposed action does not affect the accident analysis addressed in FSAR Section 15A.

II. No. The proposed action will restore the feedwater heaters to conform to their original design bases, and consequently enhance the feedwater heater and system reliability.

III. No. The Technical Specifications do not specifically address the feedwater heaters and their associated drains. The proposed modification does not compromise the function or alter the requirements of any safety related equipment or system addressed in the Technical Specifications.

SER NO.: 89-226

CROSS REFERENCE: PMR 86-7027, Rev. 3

DESCRIPTION OF CHANGE:

This modification replaces the Unit 2 RHR Shutdown Cooling pressure switches with pressure switches having a smaller deadband. This will allow entry to RHR shutdown cooling at a pressure as high as safely possible.

SUMMARY:

I. No. Replacement of the existing pressure switches does not change the system design intent. The function of the switches remains the same in that the safety isolation setpoint will be set to close the RHR Shutdown Cooling isolation valves at a value less than or equal to that listed in the Technical Specifications. Because of a smaller deadband, the automatic reset on decreasing pressure, which completes the permissive to open the shutdown cooling isolation valves, will be higher and thereby eliminate the need to manually vent the switches. This will eliminate the possibility of an instrument valving error which could defeat the safety function of the subject pressure switches.

II. No. The failure modes of the replacement switches are no different than that of the existing switches. A failure of both switches to activate on high pressure could cause a rupture in low pressure shutdown cooling piping. A RHR Shutdown Cooling pipe break is included in the FSAR Chapter 15 analysis for DBA Events 43, 44 and 45. FSAR Figure 15A.6-43 illustrates the protection sequence for a RHR Shutdown Cooling System break. A failure resulting in switch actuation when pressure is low will cause a loss of Shutdown Cooling. Loss of Shutdown Cooling is an analyzed event in Chapter 15 of the FSAR (Event 18).

III. No. The replacement of the existing switches does not affect Technical Specifications Bases 3/4.3.2 or 3/4.4.9. The switches are addressed in Technical Specification Table 3.3.2-1 which states that the switches must be operational in Conditions 1, 2 and 3 or else the system isolation valves must be declared inoperable. This modification will enhance the operation of the valves and RHR system.

SER NO.: 89-227

CROSS REFERENCE: PMR 86-7026, Rev. 3

DESCRIPTION OF CHANGE:

This modification replaces the Unit 1 RHR Shutdown Cooling pressure switches with pressure switches having a smaller deadband. This will allow entry to RHR shutdown cooling at a pressure as high as safely possible.

SUMMARY:

I. No. Replacement of the existing pressure switches does not change the system design intent. The function of the switches remains the same in that the safety isolation setpoint will be set to close the RHR Shutdown Cooling isolation valves at a value less than or equal to that listed in the Technical Specifications. Because of a smaller deadband, the automatic reset on decreasing pressure, which completes the permissive to open the shutdown cooling isolation valves, will be higher and thereby eliminate the need to manually vent the switches. This will eliminate the possibility of an instrument valving error which could defeat the safety function of the subject pressure switches.

II. No. The failure modes of the replacement switches are no different than that of the existing switches. A failure of both switches to activate on high pressure could cause a rupture in low pressure shutdown cooling piping. A RHR Shutdown Cooling pipe break is included in the FSAR Chapter 15 analysis for DBA Events 43, 44 and 45. FSAR Figure 15A.6-43 illustrates the protection sequence for a RHR Shutdown Cooling System break. A failure resulting in switch actuation when pressure is low will cause a loss of Shutdown Cooling. Loss of Shutdown Cooling is an analyzed event in Chapter 15 of the FSAR (Event 18).

III. No. The replacement of the existing switches does not affect Technical Specifications Bases 3/4.3.2 or 3/4.4.9. The switches are addressed in Technical Specification Table 3.3.2-1 which states that the switches must be operational in Conditions 1, 2 and 3 or else the system isolation valves must be declared inoperable. This modification will enhance the operation of the valves and RHR system.

SER NO.: 89-228

CROSS REFERENCE: PMR 88-3072A

DESCRIPTION OF CHANGE:

This modification installs pipe tabs with isolation valves on the instrument air system.

SUMMARY:

I. No. Installation of the pipe tab will have no impact on system operability.

II. No. The proposed modification has no effect on system operability.

III. No. This modification affects only the Instrument Air System but does not affect its operation nor the operation of any of its users. The Instrument Air System is not mentioned in the basis for any Technical Specification and this modification will not affect the operation of any component important to safety.

SER NO.: 89-229

CROSS REFERENCE: PMR 88-3066

DESCRIPTION OF CHANGE:

This change replaces the Unit 2 circulating water piping expansion joints.

SUMMARY:

I. No. The new expansion joints are designed to tolerate greater movements of the circulating water piping system and should have a longer service life. The replacement of the existing expansion joints which have deteriorated should therefore decrease the probability of a major leak. All modifications are non-quality related. Safety impact has been evaluated and dispositioned as not being applicable. The failure of the components to be installed will not jeopardize the function of any safety related equipment.

II. No. This modification does not modify the function, configuration or design basis of the circulating water system. All design changes to the replacement expansion joints should extend the expansion joints life. This modification does not change the intent or alter the operation of any safety related equipment. Furthermore, the failure of the components installed by this modification will not affect the operation of any safety related components.

III. No. The expansion joints are not in the Technical Specifications and there are no Technical Specification requirements for the expansion joints. The expansion joint replacement will not alter the circulating water system function, configuration of design basis; nor will it alter the function of any components described in the Technical Specifications.

SER NO.: 89-230

CROSS REFERENCE: PMR 89-9011

DESCRIPTION OF CHANGE:

This modification installs a one inch drain line in each of the 3 inch RBCW supply and return piping to the Reactor Recirculation Pump Motor Coolers.

SUMMARY:

I. No. The proposed modification does not alter the design function of the RBCW System as described in the FSAR. The RBCW system has no safety-related function. During normal operation, the RBCW System functions to maintain normal design air temperature in various areas of the Reactor Building and to supply chilled water to Reactor Recirc Pump motor coolers within the Drywell. The safety-related portions of the RBCW System include the Primary Containment penetrations and the Primary Containment isolation valves. The addition of the proposed modification will have no affect on the Containment isolation function of either the valves or penetrations and will serve to enhance their testability.

II. No. This modification deals only with the addition of drains to simplify the draining of the RBCW system to support LLRT testing of Penetrations X-86A and X-86B. The design criteria of this modification will meet all original design inputs and codes imposed on the original piping design. The proposed modification will not affect the ability of the Containment Isolation System to perform its role in mitigating any accidents previously evaluated in Chapter 15 of the FSAR.

III. No. The Unit 2 Technical Specifications, including basis, have been reviewed and are unaffected by this modification. The proposed modification will have no affect on the function or operation of the RBCW System and does not affect the Limiting Safety Settings of equipment required for safety.

SER NO.: 89-231

CROSS REFERENCE: PMR 3070A/B

DESCRIPTION OF CHANGE:

This change modifies the Unit 1/Unit 2 Instrument Air and Service Air Systems to include relocation of the instrument air sensing line, replacement of the after filter elements, replacement of the pre-filter and after filter differential pressure gauges, relocate the dryer purge line and installs local pressure indicator gauge for the service air header pressure.

SUMMARY:

I. No. Both of the Instrument Air and Service Air systems are described as having no safety related function and the physical location of the these modifications is within the Turbine Building with no safety related equipment present. Also, the failure of these systems would have no effect on the safe shutdown of the plant.

II. No. These modifications do not interfere with the logic, control, or operation of any plant systems related to safety. Consequently, the reliability of plant safety systems to perform their required functions is not reduced. Based on the improvements to the compressed air systems provided by this proposed modification, coupled with the fact that neither the Instrument Air System nor the Service Air system are safety related, there is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. The Instrument Air and Service Air Systems are not addressed in the Technical Specifications and, therefore, do not have formal limiting conditions for operation.

SER NO.: 89-232

CROSS REFERENCE: NL-89-024, Rev. 1

DESCRIPTION OF CHANGE:

This modification installs a bypass to disable ESW auto valve transfer logic for the ESW flow test.

SUMMARY:

I. No. This bypass does not affect the description in FSAR Sections 3.6, 9.2.5.1, 1.2.2.8.3, 9.2.5.2, 9.2.5.5, 9.2.5.3, 1.2.1.2.2.1, and 3.1.2.1.4.

II. No. The proposed actions do not create any additional scenarios which could prevent either ESW/RHRSW or the diesel generators from fulfilling their design requirements.

III. No. The rebalance will assure each cooler has at least its minimum design flow.

SER NO.: 89-233

CROSS REFERENCE: PMR 89-9054

DESCRIPTION OF CHANGE:

This modification replaces RHR pump motor termination configurations with environmentally qualified Raychem splice kits.

SUMMARY:

I. No. This modification does not alter the function, operation or design basis of the RHR system.

II. No. This modification is being implemented to assure conformance to IEEE 323-1974 by providing environmentally qualified motor terminations.

III. No. The modifications are consistent with the Technical Specifications and design basis for the RHR system.

SER NO.: 89-234

CROSS REFERENCE: NL-90-001, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation is for a test procedure to troubleshoot a malfunctioning electrical connection existing on its common offgas recombiner which has caused inadvertent isolation signals to be sent to the SJAE inlet isolation valves.

SUMMARY:

I. No. Section 11.3 of the FSAR states the SJAE inlet isolation valves will go closed if the trip functions occur. TP-072-004 will require this function to be performed manually by an operator specifically designated for this function. Upon successful completion of repairs or the installation of the bypass, the automatic unit trip function will be restored to normal.

II. No. The proposed evolution does not create the possibility of a accident or malfunction that the systems have not been designed to withstand. This evolution is bounded by the accident analysis of Section 15.7.1 of the FSAR. This test will not create an accident or malfunction more severe than that of a failure of Air Ejector Lines.

III. No. A review of the Technical Specifications and bases have been performed for the evolution controlled by TP-072-004. Specifically Sections 3/4.11.2 and 3/4.3.7.11, no effect was found as a result of the proposed evolution.

SER NO.: 89-235

CROSS REFERENCE: NL-89-060, Rev. 0

DESCRIPTION OF CHANGE:

This is the evaluation of an emergency procedure for Station Blackout (SBO). To extend availability of 125V DC channels A and B, this procedure connects a 125KW portable diesel generator to the battery charges via the MCC cubicles.

SUMMARY:

I. No. A portable diesel generator is connected to the battery chargers to maintain SRVs, HPCI and RCIC available during an SBO of greater than the 4 hour duration. Per FSAR Section 8.3.2.1.1.4, station 1E batteries are required to have sufficient capacity without battery chargers to independently supply required loads for 4 hours. Connection of the portable diesel generator does not reduce battery 4 hour capacity, but actually increases it by providing backup power to the chargers.

II. No. Connection of a portable diesel generator reduces frequency of core melt by a factor of 8, thus increasing nuclear safety.

III. No. Technical Specifications 3/4.8.1, 3/4.8.2 and 3/4.8.3 Bases state that operability of DC power sources ensures sufficient power will be available to supply safety related equipment for (1) safe shutdown of the facility and (2) mitigation and control of accident conditions within the facility. Connecting a portable diesel generator to feed the battery chargers is consistent with intent of Technical Specification Bases.

SER NO.: 89-236

CROSS REFERENCE: NL-89-061 Rev. 1

DESCRIPTION OF CHANGE:

The CO_2 Room Enclosure Integrity Test will collect data to determine the acceptability of the seven Technical Specification Automatic CO_2 Systems. The test data will confirm that an adequate CO_2 concentration will be retained for a sufficient time to extinguish the fire and that the enclosure would not be exposed to damaging overpressure.

SUMMARY:

I. No. The fan tests impose only small pressure fluctuations on these rooms which are approximately equal to the normal pressure differences maintained between the Control Structure, Reactor Buildings and Turbine Buildings. The test pressures are several orders of magnitude below the pressure which the enclosures can tolerate. Therefore, it is concluded that room or equipment damage will not occur.

II. No. All portions of the test evolution have been analyzed to ensure that equipment and structure damage will not occur. The pressures created by the fan test are too low to damage equipment or do structural damage. The room temperatures will be controlled to ensure that equipment is maintained within safe temperature limits.

III. No. All portions of the test evolution have been analyzed to ensure that there would be no impact on equipment and systems defined in the Technical Specifications. In fact this test will serve to confirm operability of the CO_2 systems which are the subject of a Technical Specification.

SER NO.: 89-237

CROSS REFERENCE: NL-89-020

DESCRIPTION OF CHANGE:

The evaluation addresses the catastrophic failure of the Circulating Water Expansion Joint during the U1 4RIO.

SUMMARY:

I. No. Catastrophic failure of the Circ Water expansion joint causes flooding in the Turbine Building Condenser Bay which is analyzed in FSAR Section 10.4.1.3.3. This failure also causes the loss of Service Water and FSAR Section 9.2.1.3 states that failure of the system does not compromise safety related systems or components.

II. No. The effects of the loss of Service Water due to a Circulating Water Expansion joint failure yields two systems of concern, TBCCW and Fuel Pool Cooling. The most significant concern upon loss of TBCCW is tripping of the Instrument Air compressors due to loss of cooling. The Fuel Pool Cooling System as described in FSAR Section 9.1.3.1, is designed to maintain Pool water below 125°F at maximum heat load.

III. No. The systems per Technical Specifications are always available along with one backup system that is functional.

SER NO.: 89-238

CROSS REFERENCE: NL-89-044, Rev. 0

DESCRIPTION OF CHANGE:

The evaluation addresses performance of PSIG MSIV LLRT test and acceptance of the results as "test-of-record" for MSIV leakage.

SUMMARY:

I. No. The test has been listed in FSAR Section 5.4.5 as an example for possible testing and the test should help reduce the consequences of an accident or malfunction of equipment related to safety as evaluated in the FSAR.

II. No. This test will pressurize the M.S.L. plugs to pressures 10 to 20 psig greater than evaluated in the FSAR Section 5.4.5. Per safety evaluation on the M.S.L. plugs, the new design can withstand the increased pressure. By increasing the differential pressure across each MSIV seat problems that are actual LLRT failures will be more easily identified. Increasing the differential pressure across each MSIV will also reduce the number of maintenance activities that are for minor leakage problems and which may induce actual defects.

III. No. This test will increase the test pressure to 45 psig, but this change will highlight actual valve seating flaws and decrease maintenance on minimal defects, which can introduce valve problems.

SER NO.: 89-239

CROSS REFERENCE: NL-89-045, Rev. 0

DESCRIPTION OF CHANGE:

In order to prevent unplanned ESF's actuation and maintain the B loop of drywell coolers in service to make the drywell more habitable while personnel are working it was decided to initiate a drywell cooling manual isolation. Five valves are needed to be open to support drywell activities. These valves supply cooling water to the drywell coolers, and instrument air through CIG header.

SUMMARY:

I. No. During an outage in Operational Condition 4 or 5, primary containment integrity is not required and is not maintained (i.e. containment equipment hatch is removed). Operation of the Emergency Switchgear and Load Center Room Cooling System is also discussed in FSAR Chapter 9.4, which states that the Dx system is required to function to provide cooling post accident. Keeping these valves open and preventing the Dx system from auto starting upon drywell cooling isolation during the period when the Rx vessel is off loading will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment related to safety. This bypass will be removed prior to the plant's return to Operational Condition 5.

II. No. Since there are no requirements for primary containment integrity during defueled conditions or Conditions 4 or 5, the actions of defeating primary containment automatic, manual isolation signals to these drywell cooling valves does not effect the possibility for creating an accident or malfunction of a different type than any evaluated previously in the FSAR.

III. No. There is no section in the Technical Specification which specifically addresses Dx system operation. However, the Emergency Switchgear Room Cooling System is a support system for the ESS bus equipment which is discussed in Section 3.8.3. Since the Dx unit can still be manually operated from the control room, this bypass does not reduce the margin of safety as defined in the basis for any Technical Specification.

SER NO.: 89-240

CROSS REFERENCE: NL-89-016
TP-159-008

DESCRIPTION OF CHANGE:

Appendix J of 10CFR Part 50 requires leakage rate testing of the MSIV's at Design Basis Accident pressure (Pa) and direction after normal closure. Technical Specifications and FSAR requirements have been approved as an exemption to Appendix J, such that, test pressure is reduced and the inboard MSIV's are tested in the reverse direction. Advances in Main Steam Line Plug design and analysis have provided means to test at Pa in accident direction. This test performs testing at Pa in the accident direction.

SUMMARY:

I. No. The physical performance of this test will pressurize plant equipment to levels below normal operating pressures. Pressurization requirements against the Preferred Engineering Main Steamline Plugs have been incorporated. FSAR Section 5.4.5 describes testing of the MSIV's in the accident direction. The section describes testing with M.S.L. plugs.

II. No. The test will pressurize the M.S.L. plugs to pressures 10 to 20 psig greater than evaluated in the FSAR Section 5.4.5. Previous Safety Evaluations have shown the M.S.L. plugs can withstand the increased pressure. By increasing the differential pressure across each MSIV seat problems that are actual LLRT failures will be more easily identified. Increasing the differential pressure across each MSIV will also reduce the number of maintenance activities that are for minor leakage problems and which may induce actual defects.

III. No. The basis section for Technical Specification 3/4.6.1.2 describes MSIV testing as an exemption to 10CFR50 Appendix J and that the "special requirements" are based on experienced degradation of the leak tightness of the valves. The "special requirements" are assumed to mean the increased frequency that is assigned to the valves, lower test pressure, and separate leakage criteria. The test will be performed at the same frequency and the accepted criteria (46 scfh, 22 slm) will not be changed. The test will increase the test pressure to 45 psig. This change will highlight actual valve seating flaws and decrease maintenance on minimal defects, which can introduce valve problems. The overall intent is to test primary containment integrity by leak testing penetrations at accident pressure.

SER NO.: 89-241

CROSS REFERENCE: PMR 89-9093, Rev. 0

DESCRIPTION OF CHANGE:

This modification removes a terminal box and replaces flex conduit on Unit 2 Main Steam Line Drain Isolation Valve.

SUMMARY:

I. No. The proposed action of removing the small terminal box from the HV-2F019 valve operator and moving the flex conduit entry to the other side of the operator will not affect the Seismic Category 1 Classification of the valve or have any affect on the amount of bypass leakage allowed in the valve or the main steam drain line. The Seismic and Environmental Qualification Binders have been reviewed and removal of the terminal box and installing the flex conduit on the other side of the valve operator will not affect the qualified configuration of the valve.

II. No. Removing the terminal box on the valve, removing the portions of damaged conductors, reterminating the conductors, and moving the flex conduit connection to the other side of the valve operator will not create any new accident scenarios that have not been previously described in the FSAR.

III. No. The proposed action will not change the mechanical or electrical function of the HV-2F019 valve and will thus not affect the bypass leakage limitations on the valve. Also, no change to the special testing requirements of this valve as described in Section 3/4.6.1.2 will be needed.

SER NO.: 89-242

CROSS REFERENCE: PMR 89-9089, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide fill valves close to the TBCCW & GRRCCW head tanks, in view of the sight glass level indicators. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.9 of the FSAR deals specifically with the make-up demineralizer system. The make-up demineralizer system has no safety related function and is designed to provide an adequate supply of demineralized water for the plant operating requirements. The addition of a 1" demineralized water fill line to the TBCCW head tank and the GRRCCW head tanks has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the TBCCW and GRRCCW System. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease.

III. No. Unit 1 Technical Specification has been reviewed and the Demineralized Water System is not specifically addressed. No functional changes will be made by this modification. This modification adds a new demineralized water fill valve next to the head tank in view of their sight glass indicators. This design will eliminate the need for two operators that are presently required during system fill.

SER NO.: 89-243

CROSS REFERENCE: PMR 89-9088, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide fill valves close to the TBCCW & GRRCCW head tanks, in view of the sight glass level indicators. This modification will eliminate the need for two operators during require system fill.

SUMMARY:

I. No. Section 9.2.9 of the FSAR deals specifically with the make-up demineralizer system. The make-up demineralizer system has no safety related function and is designed to provide an adequate supply of demineralized water for the plant operating requirements. The addition of a 1" demineralized water fill line to the TBCCW head tank and the GRRCCW head tank has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the TBCCW and GRRCCW System. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease.

III. No. Unit 2 Technical Specification has been reviewed and the Demineralized Water System is not specifically addressed. No functional changes will be made by this modification. This modification adds a new demineralized water fill valve next to the head tank in view of their sight glass indicators. This design will eliminate the need for two operators that are presently required during system fill.

SER NO.: 89-244

CROSS REFERENCE: PMR 89-9078, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a fill valve close to the TBCCW head tank in view of the sight glass level indicator. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.3.1 of the FSAR deals specifically with the Turbine Building Closed Cooling Water (TBCCW) System. The operation of the TBCCW system has no safety-related function. The addition of a 1" demineralized water make-up fill line has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the TBCCW System as it exists. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease.

III. No. Unit 1 Technical Specification has been reviewed and the TBCCW and Demineralized Water System are not specifically addressed. No functional changes to either system will be made by this modification. This modification only provides the required piping to a new demineralized water fill valve.

SER NO.: 89-245

CROSS REFERENCE: PMR 89-9075, Rev. 0

DESCRIPTION OF CHANGE:

This modification will provide a fill valve close to the TBCCW head tank in view of the sight glass level indicator in Unit 2. This modification will eliminate the need for two operators during required system fill.

SUMMARY:

I. No. Section 9.2.3.1 of the FSAR deals specifically with the Turbine Building Closed Cooling Water (TBCCW) System. The operation of the TBCCW system has no safety related function. The addition of a 1" demineralized water make-up fill line has no function related to safety.

II. No. The Demineralized Water System is the required source of make-up water for the TBCCW System as it exists. This modification will not change the source of make-up water but will only provide a different piping configuration for operator ease.

III. No. Unit 2 Technical Specification has been reviewed and the TBCCW and Demineralized Water System are not specifically addressed. No functional changes to either system will be made by this modification. This modification only provides the required piping to a new demineralized water fill valve.

SER NO.: 89-246

CROSS REFERENCE: PMR 87-9162A, Rev. 0

DESCRIPTION OF CHANGE:

This change replaces the load cell, load switches and load indicator of the Refueling Bridge Main Hoist located in Reactor Bldg. Elev. 818 feet.

SUMMARY:

I. No. Fuel handling system is discussed in FSAR Section 9.1.4. Design criteria of the refueling bridge main hoist is discussed in FSAR Tables 9.1.6A and B. There is no reference to the load cell in this table. The refueling platform is safety class 2 and seismic category I per FSAR Table 3.2-1. The modification replaces the main hoist load cell and adds two enclosures to house the electronics and load indicator, but does not modify the structure of the refueling bridge.

II. No. This modification replaces the load cell and does not install any new equipment.

III. No. Protection from excessive lifting forces [Bases 3/4.9.6(3)] is provided by the jam interlock. The hoist operator provides a backup in the event of failure of this interlock as is the case with the current hydraulic design. The new system addresses the problem of leakage being experienced with the current system and is an improvement.

SER NO.: 89-247

CROSS REFERENCE: SCP E-89-1059, Rev. 0

DESCRIPTION OF CHANGE:

This setpoint change increases the coordination margin between load center breaker 2B24022 and motor control center breaker 2B247033.

SUMMARY:

I. No. The proposed action implements a setpoint change for the short time setting of breaker 2B24022. The proposed action assures that the revised short time setting of circuit breaker 2B24022 will coordinate with the short time setting of breaker 2B247033.

II. No. The electrical calculation that identified the need to revise the setpoints of the overcurrent relays is in accordance with Section 8.3.1.3.13 of the FSAR.

III. No. The margin of safety is increased due to proper system coordination.

SER NO.: 89-248

CROSS REFERENCE: NL-89-021, Rev. 0

DESCRIPTION OF CHANGE:

This change installs monitoring equipment to collect data associated with Shutdown Cooling Isolations.

SUMMARY:

I. No. Per FSAR Section 7.4.1.3.1.1, shutdown cooling is the non-safety related portion of the RHR system. Section 7.4.1.3.5.3 states there is no safety related setpoint(s) associated with shutdown cooling other than the high pressure/low pressure interlocks. Section 7.6.10.4.3.5.3.4 discusses the redundancy and diversity of the instrumentation utilized for shutdown cooling isolation. This redundancy and diversity is not affected by this Bypass.

II. No. See Item I above.

III. No. The reactor pressure and high flow isolation instrumentation is not affected by this bypass due to the manner in which the temporary instrumentation will be installed. Since multiple concurrent failures would be required to result in loss of an automatic isolation of a primary containment penetration, the probability of this occurring is minimal; and therefore, this bypass does not reduce the margin of safety as defined in the basis for any Technical Specification.

SER NO.: 89-249

CROSS REFERENCE: NL-89-021, Rev. 1

DESCRIPTION OF CHANGE:

This change installs monitoring equipment to collect data associated with shutdown cooling isolations. Revision 1 of this safety evaluation is to delete information determined to be non-essential.

SUMMARY:

I. No. Per FSAR Section 7.4.1.3.1.1, shutdown cooling is the non-safety related portion of the RHR system. Section 7.4.1.3.5.3 states there is no safety related setpoint(s) associated with shutdown cooling other than the high pressure/low pressure interlocks. Section 7.6.10.4.3.5.3.4 discusses the redundancy and diversity of the instrumentation utilized for shutdown cooling isolation. This redundancy and diversity is not affected by the Bypass.

II. No. See Item I above.

III. No. The reactor pressure and high flow isolation instrumentation is not affected by this bypass due to the manner in which the temporary instrumentation will be installed. Since multiple concurrent failures would be required to result in loss of an automatic isolation of a primary containment penetration, the probability of this occurring is minimal; and therefore, this bypass does not reduce the margin of safety as defined in the basis for any Technical Specification.

SER NO.: 89-250

CROSS REFERENCE: NL 89-018, PMR 88-3038B, Rev. 0
TP 115-007

DESCRIPTION OF CHANGE:

This evaluation addresses a procedure for flushing Unit 1 TBCCW Heat Exchanger and installation of temporary flush modifications post retubing.

SUMMARY:

I. No. Per FSAR Section 9.2.3.3, failure of this system will not compromise any safety related system or component or prevent a safe shutdown of the plant.

II. No. The procedure contains prerequisites to minimize plant risk. Failure of the system will not compromise any safety related system or component or prevent safe shutdown of the plant. Off normal procedures describe steps to be taken if TBCCW is lost.

III. No. The TBCCW system is not addressed by any Technical Specifications.

SER NO.: 89-251

CROSS REFERENCE: NL 89-019, PMR 88-3039B, Rev. 0
TP 215-007

DESCRIPTION OF CHANGE:

This evaluation addresses a procedure for flushing Unit 2 TBCCW Heat Exchanger and installation of temporary flush modifications post retubing.

SUMMARY:

I. No. Per FSAR Section 9.2.3.3, failure of this system will not compromise any safety related system or component or prevent a safe shutdown of the plant.

II. No. The procedure contains prerequisites to minimize plant risk. Failure of the system will not compromise any safety related system or component or prevent safe shutdown of the plant. Off normal procedures describe steps to be taken if TBCCW is lost.

III. No. The TBCCW system is not addressed by any Technical Specifications.

SER NO.: 89-252

CROSS REFERENCE: PMR 87-9173

DESCRIPTION OF CHANGE:

This modification replaces the two existing pneumatic flow control loops in the Unit 2 RWCU Filter Demineralizer system with electronic flow control loops.

SUMMARY:

I. No. The cleanup system can be operated at any time during planned operations, or it may be shut down. The operation or malfunction of the electronic flow control loops will not affect any safety related equipment or function. Based on a review of FSAR Chapter 15, the flow control loop is not involved in any accident or transient initiation. The failure of the equipment can only effect the reactor water chemistry which, when it reaches its Technical Specification limits, will require operator action.

II. No. The modification changes a pneumatic flow control loop to an electronic flow control loop. The flow transmitter will have a pressure rating suitable for use at reactor pressure, and will perform the identical function as the presently installed transmitter.

III. No. The RWCU system itself is not a Technical Specification System. This modification changes a pneumatic flow control loop to an electronic flow control loop. The system function and loop function are not changed in the proposed modification.

SER NO.: 89-253

CROSS REFERENCE: PMR 86-9067, Rev. 1

DESCRIPTION OF CHANGE:

This modification upgrades the Suppression Pool Water Level Monitoring System.

SUMMARY:

I. No. The suppression pool water level monitoring system is discussed in FSAR Section 7.6.1b.1.3. All safety related functions pertaining to level indication and recording will remain unchanged. The Suppression Pool Water Level Monitoring System is not discussed in any Chapter 6 or 15 Analysis. The revised loops will perform all the same functions as the existing loops while increasing the reliability.

II. No. This modification does not alter any of the devices used to provide the safety related indication and recording as discussed in FSAR Section 7.6.1b.1.3. The modification does not alter the basic function of the suppression pool monitoring system and provides increased accuracy rating of the alarm.

III. No. The proposed modification will increase the accuracy rating of the low level alarm initiation and of the plant computer system by providing computer input from the more accurate narrow range loops, lowering the alarm setpoint, and providing a time delay to buffer level fluctuations. The proposed modification also provides an upgrade to the low level monitoring system by the addition of Class 1E powered alarm switch circuits for non-1E annunciator system output and reliability.

SER NO.: 89-254

CROSS REFERENCE: NL-89-022, Rev. 1
Bypass

DESCRIPTION OF CHANGE:

A jumper is to be installed to defeat both channels B & D auto isolation logic and prevent the Drywell Cooling Isolation valves from closing during the manual isolation.

SUMMARY:

I. No. Per FSAR Table 6.2-12, the valves are normally kept open during plant shutdown. Defeating the auto isolation logic to prevent these valves from closing during the manual/automatic isolation will not be prevented. Position indication and remote manual operation are still available from the control room. FSAR Table 6.2-12 does not specifically require auto isolation during Condition 4 or 5 and Technical Specification only addresses Conditions 1, 2 and 3.

II. No. Since there are no requirements for primary containment integrity during Condition 4 or 5, the action of defeating primary containment automatic/manual isolation signals to two drywell cooling valves does not effect the possibility for creating an accident or malfunction of a different type that any evaluated previously in the FSAR. In the event of a system related problems these valves can still be used for isolation by remote manual operation.

III. No. Requirements for Technical Specification Sections 3.3.2 and 3.6.3 address plant operational Conditions 1, 2 and 3. This bypass will be removed prior to the plant return to Condition 3.

SER NO.: 89-255

CROSS REFERENCE: NL-89-023, Rev. 1
Bypass

DESCRIPTION OF CHANGE:

A jumper is to be installed to defeat both channels A & C auto isolation logic and prevent the valves from closing during the manual isolation.

SUMMARY:

I. No. Per FSAR Table 6.2-12, the valves are normally kept open during plant shutdown. Defeating the auto isolation logic to prevent these valves from closing during the manual/automatic isolation will not be prevented. Position indication and remote manual operation are still available from the control room. FSAR Table 6.2-12 does not specifically require auto isolation during Condition 4 or 5 and Technical Specification only addresses Conditions 1, 2 and 3.

II. No. Since there are no requirements for primary containment integrity during Condition 4 or 5, the action of defeating primary containment automatic/manual isolation signals to two drywell cooling valves does not effect the possibility for creating an accident or malfunction of a different type that any evaluated previously in the FSAR. In the event of a system related problems these valves can still be used for isolation by remote manual operation.

III. No. Requirements for Technical Specification Sections 3.3.2 and 3.6.3 address plant operational Conditions 1, 2 and 3. This bypass will be removed prior to the plant return to Condition 3.

SER NO.: 89-256

CROSS REFERENCE: PMR 88-3016H

DESCRIPTION OF CHANGE:

This modification changes the Control Structure HVAC (CSHVAC) and adds a second location for CSHVAC operation to ensure compliance with 10CFR50 Appendix R.

SUMMARY:

I. No. This modification ensures safe shutdown from outside the Main Control Room can be achieved for a fire in the Main Control Room as discussed in the FPRR 6.2.25 by providing remote operation of the CSHVAC system which is required to support safe shutdown.

II. No. This modification does not create any additional scenarios which could prevent the CSHVAC system from fulfilling its design requirements, either for normal or emergency operation. The addition of the alternate CSHVAC Control Panel maintains the redundant HVAC systems as described in FSAR Sections 9.2.12.1.3 and 9.4.1.3.

III. No. The bases of the Technical Specifications have been reviewed for the CSHVAC system. The Control Room Emergency Outside Air Supply System (3/4.7.2) is addressed by the Technical Specifications for Unit 1 and Unit 2. However, this subsystem of CSHVAC is not required for Safe Shutdown Path 2.

SER NO.: 89-257

CROSS REFERENCE: PMR 88-3160

DESCRIPTION OF CHANGE:

This modification involves protection of safe shutdown from fire suppression activities, which in this case consists of water spray originating from manual or automatic fire fighting activities.

SUMMARY:

I. No. This modification will eliminate the indirect consequences of a single design basis fire on safe shutdown components. Caulking, gasketing and shielding provisions for the components addressed will provide a barrier to keep water released by suppression systems from damaging those components.

II. No. The caulking, gasketing and shielding work proposed by this modification are entirely passive fire protection features. The proposed work does not change the function of the components and the design of the shields will properly address dynamic qualification of the components.

III. No. This modification will not interface with any plant operations system; hence, no plant parameter is affected. The shields are designed to allow operators to view instrumentation without any interference.

SER NO.: 89-258

CROSS REFERENCE: NL-89-026, Rev. 0

DESCRIPTION OF CHANGE:

This evaluation addresses the prudency of using Unit 1 Fuel Pool Cooling as primary Decay Heat Removal System between Fuel Pool Gate Installation and the Service Water Outage with leak in Circ Water Expansion Joint.

SUMMARY:

I. No. This evaluation documents the reasons why the Unit 1 fuel Pool Cooling system can be used as the primary decay heat removal system between the fuel pool gate installation and the Unit 1 Service Water Outage, knowing that a Circulating Water expansion joint leaks. Based on reduction of system pressure, the observed decrease in expansion joint leakage and past decay heat data, there is not an increase in the probability of occurrence of the consequences of an accident or malfunction of equipment related to safety as previously evaluated in the FSAR.

II. No. It is expected that the Circulating Water expansion joint will remain intact, however, the design of the Fuel Pool Cooling system as described in FSAR Section 9.1.3.1 is to maintain pool water below 125°F, and the worst case is described in FSAR Appendix 9A where both pool cooling systems are lost from a single seismic event. The conservative results showed that the pools would not boil until at least 25 hours after loss of cooling. For the purpose of this evaluation only Unit 1 Fuel Pool Cooling System would be lost in the event of a catastrophic failure of the expansion joint. Unit 2 Fuel Pool Cooling is still available along with U2 RHR Fuel Pool Cooling assist.

III. No. The systems required per Technical Specifications are always available along with one backup system that is functional.

SER NO.: 89-259

CROSS REFERENCE: PMR 88-3018F

DESCRIPTION OF CHANGE:

The action provides the RWCU isolation valve with circuit isolation through a new isolation control transfer switch in the remote shutdown panel.

SUMMARY:

I. No. The circuitry does not prevent the valve from automatic closure on signals from the Rector Coolant Pressure Boundary Leak Detection System of the Standby Liquid Control System as described in the FSAR Section 5.4.8.2. The addition of the isolation circuitry on a dedicated control transfer switch at the remote shutdown panel permits the flexibility to selectively isolate the RWCU system and prevent spurious opening of the valve for a fire in the Control Room.

II. No. The new circuitry between the remote shutdown panel 2C201 and the MCC is an existing, seismically supported raceway. Cables are installed in Division I raceway so that divisional separation is maintained.

III. No. The proposed action does not affect the thermal overload bypass on the valve when controlled from the Control Room. The proposed action does provide a dedicated control transfer switch which allows the operator the flexibility to terminate letdown through the RWCU system from the remote shutdown panel.

SER NO.: 89-260

CROSS REFERENCE: PMR 88-3016I

DESCRIPTION OF CHANGE:

This change modifies controls of the ESW valves for the Emergency Diesel Generators.

SUMMARY:

I. No. This modification does not alter the assumptions and analyses made in the FSAR. The changes do not individually or aggregately create a problem from a single failure standpoint. All of the proposed changes either have no effect on system availability or cause it to be improved.

II. No. This modification does not create any additional scenarios which could prevent either the ESW/RHRSW systems or the diesels from fulfilling their design requirements. Installation of the modification maintains the independence of redundant Class 1E systems as described in the FSAR Sections 8.3.1.11.4 and 8.1.6.1.n.

III. No. The modification to the Diesel Generator ESW valves is performed with the diesel generator not aligned and the valves closed.