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 AUTH. NAME AUTHOR AFFILIATION
 CONWAY, W.F. Arizona Public Service Co. (formerly Arizona Nuclear Power
 RECIP. NAME RECIPIENT AFFILIATION

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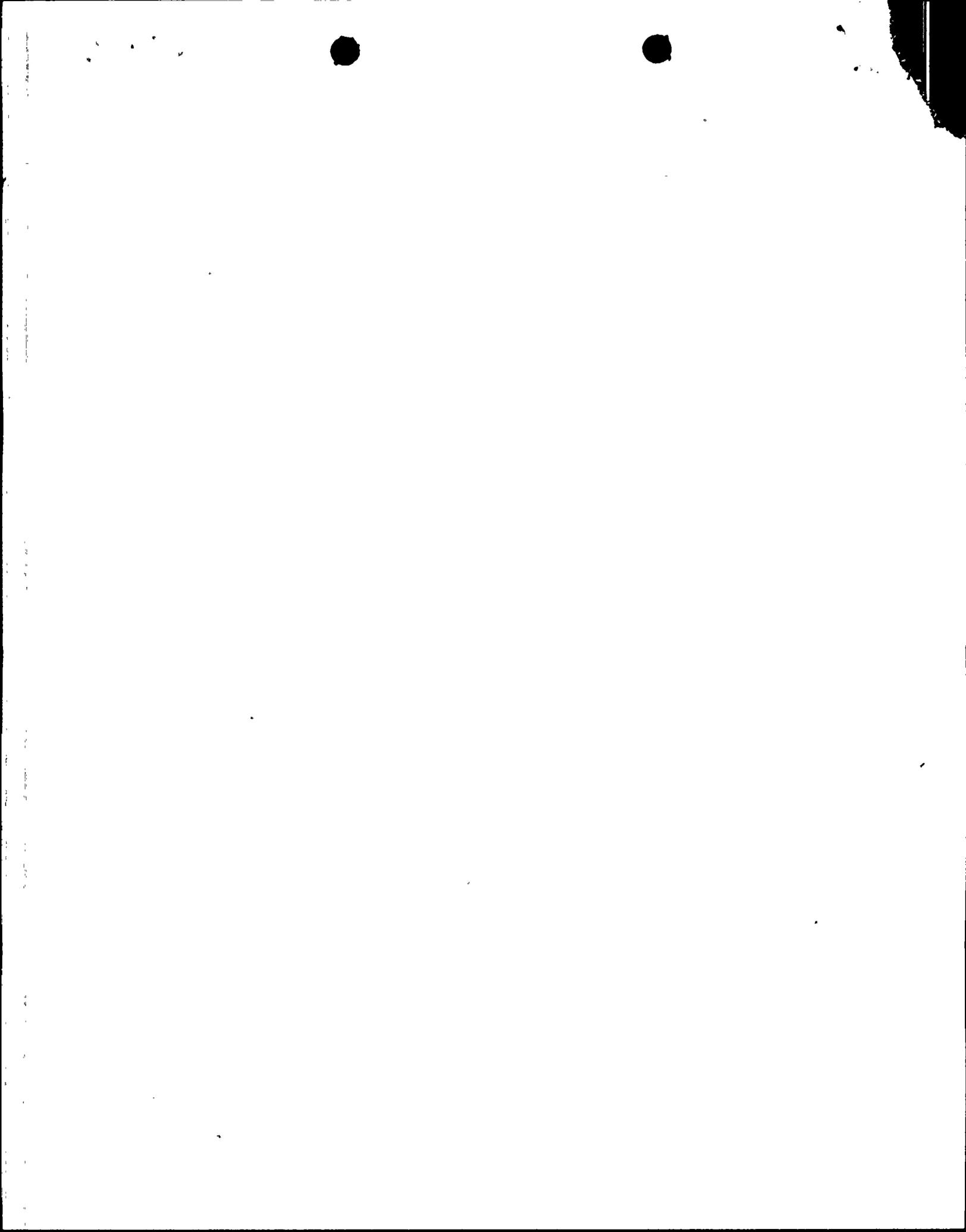
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Arizona Public Service Company

P.O. BOX 53999 • PHOENIX, ARIZONA 85072-3999

WILLIAM F. CONWAY
EXECUTIVE VICE PRESIDENT
NUCLEAR

102-02195-WFC/JRP
June 29, 1992

U. S. Nuclear Regulatory Commission
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Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
10 CFR 50.59 Annual Report for the 1991 Calendar Year
File: 92-056-026**

Pursuant to 10 CFR Part 50.59(b)(2), Arizona Public Service Company is submitting the enclosed annual report which is a compilation of the changes completed during the 1991 calendar year at PVNGS Units 1, 2, and 3.

The enclosed report contains a brief description of the changes and a brief summary of the safety evaluation for each change.

If you should have any questions, please contact Thomas R. Bradish of my staff at (602) 393-5421.

Sincerely,



WFC/JRP/pmm

Enclosure

cc: J. B. Martin
D. H. Coe
A. C. Gehr
A. H. Gutterman

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ENCLOSURE

10 CFR 50.59 ANNUAL REPORT



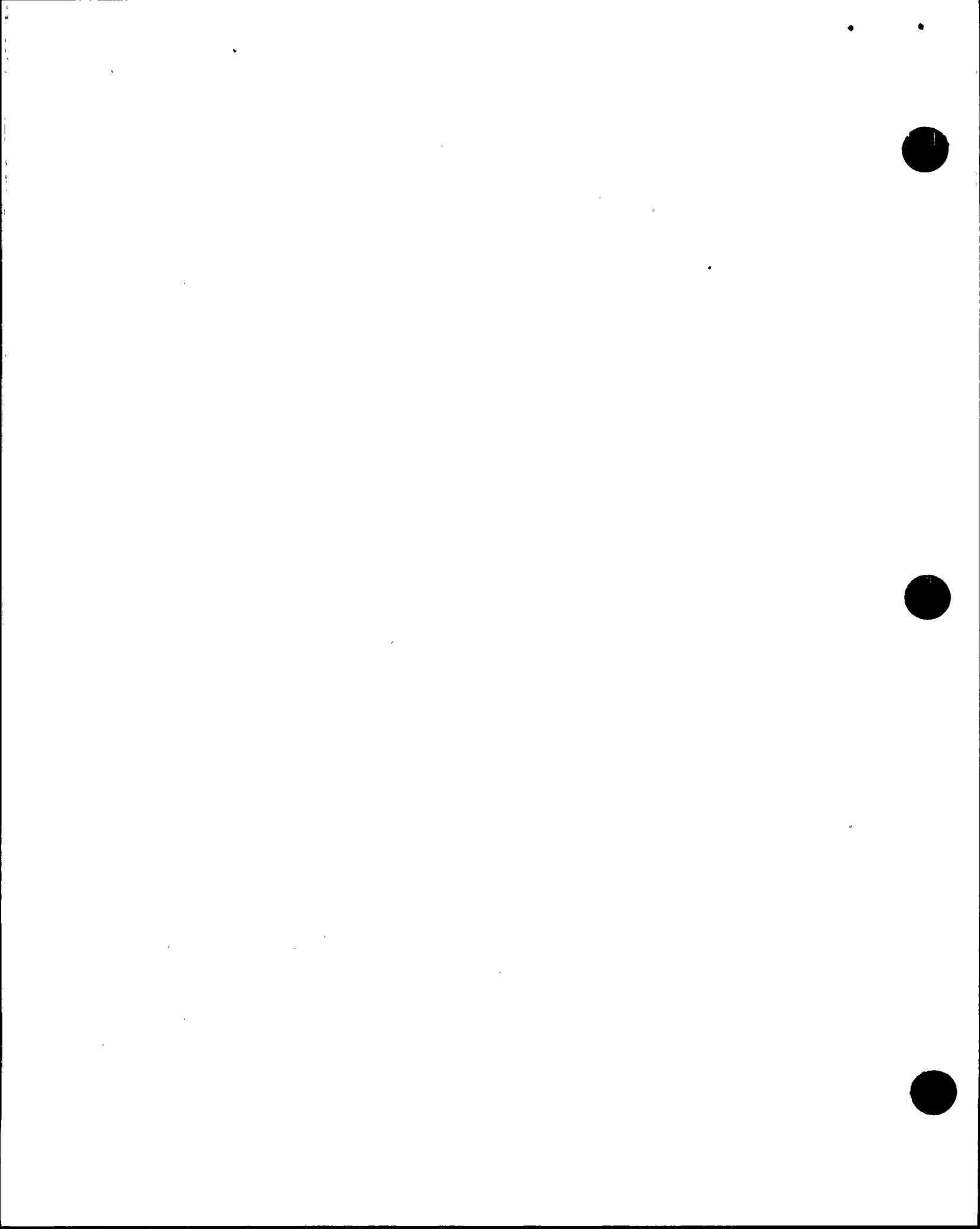
1991 PVNGS Material Nonconformance (MNCR) 50.59 Report

MNCR Number	Description	Safety Evaluation Summary
89-CH-0003	This MNCR accepted using substandard charging pump suction and discharge valve assemblies in Unit 1, which resulted from purchasing quality requirements not being passed down from the vendor to subvendor, provided they are replaced at the next available opportunity.	This MNCR did not introduce an unreviewed safety question. The check valve assemblies are not pressure retaining parts and have no effect on RCS inventory. The substandard material has no impact on the ability of the check valve from performing its design function now or within the 5 year service limitation in some cases as applicable. Therefore, charging pump operation is not affected by continued use of this material.
89-CH-0004	This MNCR allowed the continued use of charging pump suction and discharge valve assemblies in Unit 2, even though purchasing quality requirements were not passed down from the charging pump vendor to the subvendor, until replacement at the next available opportunity.	This MNCR did not introduce an unreviewed safety question. The check valve assemblies are not pressure retaining parts and have no effect on RCS inventory. The substandard material has no impact on the ability of the check valve from performing its design function. Charging pump operation is not affected by continued use of this material.
89-CH-0016	This MNCR accepted operation of valve 1PCHEVH75 even though the valve operator is missing a hand wheel bearing.	This MNCR did not introduce an unreviewed safety question. This valve is normally open, and the handwheel bearing only makes it easier to operate (stroke) this manual valve. This valve has no safety function, and the handwheel bearing is not a pressure boundary.
89-PK-0004	This MNCR allowed continued use of Cell 40 of 3EPKDF14 in spite of a small crack in the cell cover.	This MNCR did not introduce an unreviewed safety question. The class 1E batteries are designed to provide power during a blackout. The capacity of the battery is not affected. Possibility of an accident or malfunction different than those previously evaluated by the UFSAR is not created, and margin of safety is not reduced.
89-SB-0002	This MNCR allowed the use of three 1/4"-20 screws, rather than four, to secure the Unit 3 Core Protection Calculator (CPC) Channel A Data Acquisition System (DAS) chassis.	This MNCR did not introduce an unreviewed safety question. The design requirement to secure the DAS chassis is still achieved, no new or different equipment failures or malfunctions are introduced, and the equipment's seismic



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MNCR Number	Description	Safety Evaluation Summary
89-SB-0003	This MNCR allowed for the system to remain operable though threaded spacers have separated from the CPC/CEAC chassis in Units 2 and 3. These spacers are normally used to secure CPC/CEAC turnkey panels to the computer chassis, so this is contrary to system design requirements.	qualification is maintained. This MNCR did not introduce an unreviewed safety question. If the unit were operating with the minimum two out of four channels operable and an SSE occurred, there is low probability that the turnkey panel, acting as a missile, could hit a component in such a way as to cause equipment to continue to operate and not send a trip signal as required. Connections pulling loose cause the channel to halt or continue to operate normally. Neither condition is a safety concern.
89-SQ-0007	This MNCR allowed continued operation of the filterholder and O-rings in the Turbine Deck of Unit 2 (until replacement is possible) even though components had been installed without appropriate Q class traceability.	This MNCR did not introduce an unreviewed safety question. The form, fit or function of these components is not altered. This conditional release does not increase probability or consequences of a malfunction of equipment important to safety. The affected components remain the same as presently installed; only the Q class traceability is changed.
89-SQ-0009	This MNCR allowed the continued use of the particulate filter and iodine cartridge for the Radiation Monitor in Unit 1 (until replacements are available) even though these components were installed without clear Q-class traceability.	This MNCR did not introduce an unreviewed safety question. There is no difference in manufacturers or part numbers between the equipment presently installed and that which will be installed with Q-class traceability. The form, fit and function of the newly procured components are the same as those presently installed.
89-SQ-0010	This MNCR allowed the continued use of the particulate filter and iodine cartridge for Radiation Monitor in Unit 2 (until replacements are available) even though these components were installed without clear Q-class traceability.	This MNCR did not introduce an unreviewed safety question. There is no difference in manufacturers or part numbers between the equipment presently installed and that which will be installed with Q-class traceability. The form, fit and function of the newly procured components are the same as those presently installed.



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MNCR Number	Description	Safety Evaluation Summary
90-CH-0014	This MNCR allowed continued power operation of Unit 3 even though the flow element for the letdown flow indicator is installed backwards.	This MNCR did not introduce an unreviewed safety question. The instrument is used for system monitoring only. It is not used in the mitigation of an accident, and it has no safety functions. The pressure boundary of "Q" class equipment remains intact; only the accuracy of the flow instrument is affected. The letdown flow can be calculated by other means during steady state conditions, and during other conditions this instrument has no safety functions.
90-CH-0018	This MNCR accepted using an ASME weld to join the bonnet of 3PCHEV334 to the valve body due to the valve bonnet threads being damaged and no longer able to fulfill its pressure boundary requirement.	This MNCR did not introduce an unreviewed safety question. The only accident possibly affected by this MNCR would be a decrease in RCS inventory due to a valve leak and/or failure. However, probability of this accident and its consequences are not changed, as one ASME pressure boundary (valve threads) is being replaced by another ASME pressure boundary (weld).
90-CH-0019	This MNCR accepted injecting a sealant compound into 3PCHNV090 to stop a seat leak. This valve is a letdown line drain valve upstream of the letdown line control valves.	This MNCR did not introduce an unreviewed safety question. The only possible accident related to this MNCR is UFSAR Section 15.6.2, analysis of a double ended break. However, the valve is on a 1" line, thus this analysis bounds any possible catastrophic failure of the valve. The valve maintains its structural integrity. The main impact is a decrease in RCS leakage.
90-CP-0003	This MNCR allowed the continued use of endplates on the Unit 2 Pratt butterfly valves used for Containment isolation in the Containment Purge (CP) system Refueling Purge lines. The valves were modified under TMOD 02-89-CP-045 by drilling a small hole in the end plate for installation of a retaining pin.	This MNCR did not introduce an unreviewed safety question. The hole does not affect the pressure integrity of the valve, and therefore the valve end plate is acceptable for use during operation under pressure with the hole remaining in the plate. No different type of accident or malfunctioning of the valve is created; margin of safety is not reduced.

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MNCR Number	Description	Safety Evaluation Summary
90-ES-0001	This MNCR accepted using SEIS/SEAS test relays in Unit 2 even though a diode was not installed per vendor drawings.	This MNCR did not introduce an unreviewed safety question. With this diode missing, the test relay takes slightly longer to de-energize. This does not increase probability of an accident, because the SESS is a monitoring system only and has no impact on the plant systems it monitors. The other function of the diode to shunt the reverse EMF as the relay field collapses does not affect the power supply due to its short duration. Also, the 24 VDC is not used to supply circuit cards that may be sensitive to the voltage spikes.
90-EW-0010	This MNCR accepted a conditional release for the Unit 1 EW A heat exchanger with the exclusion of the application of coating on outlet channel head relief valve nozzle rework.	This MNCR did not introduce an unreviewed safety question. The exclusion of the application of coatings on the nozzle leaves the system well within the allowable stress factors. This does not adversely affect the ability of quality related structures, components and systems to perform their safety related or important to safety functions.
90-FH-0001	This MNCR accepted using New Fuel Handling Crane Hoist Load Cell and Circuits in Units 1 and 2 presently installed on the crane, purchased "NQR," although the component classification evaluation for the load cell on the 10 ton fuel crane in the fuel handling system classifies the load cell "Q".	This MNCR did not introduce an unreviewed safety question. The load cell produces a signal to inhibit crane motion over the Spent Fuel Pool when carrying a load in excess of 2000 lbs. It also restricts tensile load on the new and spent fuel racks to 5,000 lbs. In prohibiting the crane from these scenarios by restricting crane access to the racks, safety functions required of the load cell are alleviated.
90-FP-0031	This MCR accepted the replacement of the conductive hinges on doors A213, A216 and A217 with standard hinges in Unit 1.	This MNCR did not introduce an unreviewed safety question. Because a conductive hinge is not required for a door to have a fire rating and because the standard hinge is installed per specification 13-AN-006 and meets requirements given in NFPA 80, this change does not impact the door's ability to function as a fire barrier. This change does not change the operation of the door as it was evaluated in the

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MNCR Number Description

Safety Evaluation Summary

90-FP-0041

This MNCR accepted installing grout to the inside void of the frame housing to door J 202 in Unit 1 to bring it into conformance with Specification 13-AN-006 R/2.

UFSAR.

This MNCR did not introduce an unreviewed safety question. The design form, fit and function of the door frame is maintained. The grout replaces the reinforcement requirement of the 1" diameter tube, and the function of the door frame is unchanged. This does not adversely affect the performance or quality related functions of quality related structures, components or systems.

90-FP-0074

This MNCR allowed permanently removing the door coordinator from door 3AZANTA107 between the Auxiliary and Radwaste Buildings as a result of the paired doors exceeding the maximum gap of 1/8" at the meeting edges.

This MNCR did not introduce an unreviewed safety question. This coordinator is not required by NFPA 80. It may be removed from the door without adversely affecting the form, fit or function (fire rating) of the door. It also does not adversely affect any quality related structures, systems or components identified in the UFSAR Section 3.2.

90-HF-0001

This MNCR accepted replacing the silicone sealant used on an access plate located below the heater auxiliary panel on Fuel Building Essential Air Filtration Units (1M-HFA-J01 and 1M-HFB-J01), although Reg. Guide 1.52 does not allow the use of silicone sealants for Essential Filtration Units.

This MNCR did not introduce an unreviewed safety question. The new gasket is made from an identical material that the vendor specified for similar duty on the Heater Auxiliary panel. Therefore, this gasket is acceptable for the estimated 40 year plant life. The gasket has no seismic or structural function; the only function is to provide an air-seal.

90-HJ-0001

This MNCR reworked the ETL wiring for damper M598-9935 to conform to DCP 10M-FP-131 and Det. E of 13-10407-M598-9935.

This MNCR did not introduce an unreviewed safety question. Probability or consequences of a malfunction of the fire dampers is decreased since this change improves the existing condition and allows the FD to meet its intended function (to fully close upon fire protection actuation and assure CO2 concentration in the ESF Switchgear room is not jeopardized). No additional combustibles are introduced. This change does not affect the redundancy and separation provided by the essential ESF HVAC System and train B ESF

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MNCR Number	Description	Safety Evaluation Summary
90-IA-0004	This MNCR accepted adding a deficiency tag at air distribution panel 1J1AN806 to identify crossed air lines to loads 1JFWNE01 and 1JFWNE02 until the deficiency is corrected.	Switchgear. This MNCR did not introduce an unreviewed safety question. The tag is placed under clearance 1-90-01792. Possibility and consequences of an accident or malfunction important to safety or previously evaluated is not increased per the UFSAR Sections 9.3 and 9.5. The Instrument Air system is not Technical Specification related, therefore the margin of safety is not reduced.
90-IA-0005	This MNCR allowed for the conditional use of a 1/8" stainless steel pipe clamp with 1/4" rubber gaskets on the outside surface of the flange for 1PIANV215 to replace a blown out gasket.	This MNCR did not introduce an unreviewed safety question. The 1/8" clamp is equivalent to the wall thickness of existing piping. Thus, by comparison, the clamp can hold this working pressure. The gasket material used in the clamp is the permanent material used in the flanged connections.
90-RC-0009	This MNCR allowed the addition of 2 spacers and 2 nuts to valve RC207 at Unit 3 because full thread engagement was not achieved.	This MNCR did not introduce an unreviewed safety question. The subject components are structurally and seismically acceptable. The valve remains operational, and the addition of the spacers and nuts does not degrade or increase the failure of the valve. The addition of such small mass to containment does not introduce a new type of accident or malfunction not already examined. They do not present a missile concern, and their failure does not threaten valve integrity.
90-RC-0018	This MNCR accepted the use of a CE tubesheet plug, modified tube plugs, and the CE water plug to repair four leaking tubes (R2, L187; R1, L188; R2, L185; R4, L185) in Unit 1.	This MNCR did not introduce an unreviewed safety question. Installation of the plugs restores the integrity of the RCS pressure boundary. These plugs have no greater probability of failure than any of the other normal CE tube plugs. They have been designed and analyzed to the same design conditions as the steam generators themselves. The CE water plug has no detrimental effects to the steam generator when

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MNCR Number	Description	Safety Evaluation Summary
90-SA-0001	This MNCR allowed the continued use of the Bay 8 NSSS ESFAS power supply in Unit 3 with the input and output cables tied together with tie wraps, which deviates from IEEE 384, which the NSSS ESFAS cabinet was designed to.	it melts. Operators can still bring the plant to cold shutdown after a steam generator tube rupture. This MNCR did not introduce an unreviewed safety question. A single fire or fault in any NSSS ESFAS cabinet does not result in a loss of the other redundant train. No single fault or fire in any NSSS ESFAS cabinet bay results in the loss of more than one power feed to that cabinet. The design requirement of single failure criteria and the intent of IEEE 384 is maintained.
90-SA-0011	This MNCR accepted the absence of rear mounting screws for the CEA Position Isolation Assembly (CPIA) in Unit 3.	This MNCR did not introduce an unreviewed safety question. Seismic Category 1 is maintained. No other functions, characteristics or failure modes are affected. Failure of the CPIA has no effect on systems required for safe shutdown other than the reactor trip function. The CPIA provides and isolates 22 CEA position signals, and this function is duplicated within the LPD/DNBR protection channels and to some extent by the upper and lower electrical limits and dropped rod contacts.
90-SB-0016	This MNCR accepted using "as is" the soldered termination of the leads of indicator DS101 instead of the use of terminal lugs in Unit 3.	This MNCR did not introduce an unreviewed safety question. It does not change the function of the equipment or ability to meet the design function. If the terminations were to short to each other or to ground, power would be lost to the channel of SPLA and would open a single RTSG, which would not affect the plant, as well as open the supply breaker to the SPLA. Because the system fails safe, it does not increase consequences of an accident.
90-SD-0001	This MNCR allowed the continued operation of a seismic cabinet cover in Unit 3 with only 3 of 4 mounting bolts installed.	This MNCR did not introduce an unreviewed safety question. The operation of the unit is not affected by the missing bolt. Therefore, probability or consequences of an equipment malfunction or accidents evaluated in the UFSAR is

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MNCR Number	Description	Safety Evaluation Summary
90-SG-0021	This MNCR allowed repairing a downcomer check valve in Unit 3 which has a hinge pin flange leak while the unit is online using a leak sealant method.	not increased. This MNCR did not introduce an unreviewed safety question. This repair only involves installing injection valves on the valve hinge pin flange and injecting the gasket void area. It does not make any changes to the process or control functions of the valves and does not change operation of the valve.
90-SP-0003	This MNCR accepted a new spray pond motor having #4 AWG motor T-leads instead of #6 AWG motor T-leads in Unit 2.	This MNCR did not introduce an unreviewed safety question. The change from #6 AWG to #4 AWG provides more ampacity for a new 1.15 S.F. motor. (The original motor has #6 AWG T-leads with 1.0 S.F.) This motor improves spray pond pump performance and its reliability. No new system is added, nor is the operation of existing systems altered.
90-SQ-0010	This MNCR accepted HRH radiation monitors in all three Units using a manual needle valve control to vary the flow rate of the sampler, instead of an automatic isokinetic mode, in order to minimize sampling errors.	This MNCR did not introduce an unreviewed safety question. It eliminates the operating mode of varying sample flow to match process velocity, which permits more accurate prediction of sample line loss values for particulates and iodines, and more reliable operation of the radiation monitors. The radiation monitors do not provide engineered safety feature actuation signals, are not accident initiators, and have no bearing on accident type.
90-ZC-0013	This MNCR documented the Seismic Category IX qualification of vendor supplied mounting hardware for Containment Building "Hear-Here" (phone) booths in all three Units.	This MNCR did not introduce an unreviewed safety question. The subject equipment will not experience a catastrophic structural failure when subjected to the vibratory motions of the SSE in combination with the normal operation loads. This action has no adverse effect upon the performance of any quality related structures, systems or components identified in UFSAR Section 3.2.
90-ZF-0001	This MNCR accepted two 6" diameter cored holes in the 140'	This MNCR did not introduce an unreviewed safety question.



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MNCR Number	Description	Safety Evaluation Summary
	slab of U-2 Fuel Building with cut reinforcing bar (rebar).	The slab still has margin in excess of its designed capacity even with the rebar cuts. The structural integrity of the slab is not adversely affected, and the design requirements are not compromised.
90-ZG-0001	This MNCR accepted using standard washers in place of "Fender" oversized washers for a conduit support in the Diesel Generator in Unit 1.	This MNCR did not introduce an unreviewed safety question. The structural integrity of the support is not compromised by using the standard washers. The connection functions as it was intended to using the standard washers. Margin of safety is not reduced.
90-ZJ-0014	This MNCR allowed continued use of cable tray support H-138 on cable tray 1EZJ1BBTCAA which is missing a gusset plate.	This MNCR did not introduce an unreviewed safety question. Consequences of a design basis accident are not increased because the function of cable tray hanger H-138 is unaffected by the change. The integrity of the cable tray is unaffected, and there are no adverse effects on any quality related structure, component or systems.
90-ZY-0004	This MNCR accepted installing latchsets, as opposed to locksets, in Cooling Tower Electrical Equipment Building doors in Unit 2, even though this does not meet Specification 13-AN-421.	This MNCR did not introduce an unreviewed safety question. The design bases form, fit or function of the doors is not affected. No operational requirements exist which require locksets on the doors. Since no radiological or hazardous chemicals or elements are contained within the buildings, concerns regarding these issues do not apply. The installed configuration maintains the design requirements of the door assembly. Since the Cooling Towers and their function are non-safety related, this has no impact on equipment or components important to safety.
91-AF-1001	This MNCR accepted using "as is" the field wiring for Limitorque operators in Unit 1 even though it is different from a design drawing.	This MNCR did not introduce an unreviewed safety question. The change in configuration without a change in the electrical design of the wiring does not change the time response, functions or interfaces of the Auxiliary Feedwater System. Therefore, the initiating faults and consequences

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MNCR Number	Description	Safety Evaluation Summary
91-AF-1002	This MNCR allowed using "as is" Limitorque operators 1JAFUCUV0034&5 even though field wiring is different than a design drawing shows.	of all accidents previously evaluated are unaffected. Also, no new equipment is added, moved or removed. This MNCR did not introduce an unreviewed safety question. The change in configuration without a change in the electrical design of the wiring does not change the time response, functions or interfaces of the Auxiliary Feedwater System. Therefore, the initiating faults and consequences of all accidents previously evaluated in the UFSAR are unaffected.
91-AS-1001	This MNCR accepted that the supply isolation valve to the seal injection heat exchanger in Unit 1, valve 13PASNV186, which is closed as part of valve line-up procedure 4xOP-xCH03, results in the "terminal end" now being transferred from the seal injection flange connection to the isolation valve.	This MNCR did not introduce an unreviewed safety question. The repair disposition of this MNCR includes the installation of a spectacle flange assembly. Consequences of this non-nuclear, high energy line break are not increased, because the location of this spectacle flange is in an Auxiliary Building area that has been previously evaluated for failure of this same line at a different nodepoint. Installation of the passive spectacle flange assembly can only fail in one way, HELB at the flange location, and this accident was previously analyzed. Also, design basis stress levels are not increased over what the ANSI B31.1 Power Piping Code allows.
91-AS-2002	This MNCR accepted that the supply isolation valve to the seal injection heat exchanger in Unit 2, valve 13PASNV186, which is closed as part of valve line-up procedure 4xOP-xCH03, results in the "terminal end" now being transferred from the seal injection flange connection to the isolation valve.	This MNCR did not introduce an unreviewed safety question. The repair disposition of this MNCR includes the installation of a spectacle flange assembly. Consequences of this non-nuclear, high energy line break are not increased because the location of this spectacle flange is in an Auxiliary Building area that has been previously evaluated for failure of this same line at a different nodepoint. Installation of the passive spectacle flange assembly can only fail in one way, HELB at the flange location, and this accident was previously analyzed. Also,



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design basis stress levels are not increased over what the ANSI B31.1 Power Piping Code allows.

91-AS-3003 This MNCR accepted that the supply isolation valve to the seal injection heat exchanger in Unit 3, valve 13PASHV186, which is closed as part of valve line-up procedure 4xOP-xCH03, results in the "terminal end" now being transferred from the seal injection flange connection to the isolation valve.

This MNCR did not introduce an unreviewed safety question. The repair disposition of this MNCR includes the installation of a spectacle flange assembly. Consequences of this non-nuclear, high energy line break are not increased, because the location of this spectacle flange is in an Auxiliary Building area that has been previously evaluated for failure of this same line at a different nodepoint. Installation of the passive spectacle flange assembly can only fail in one way, HELB at the flange location, and this accident was previously analyzed. Also, design basis stress levels are not increased over what the ANSI B31.1 Power Piping Code allows.

91-CH-3001 This MNCR accepted the operation of the charging pump in Unit 3 without the suction stabilizer bladder intact (until such time that the bladder is replaced).

This MNCR did not introduce an unreviewed safety question. Failures associated with operating the charging pump without an intact bladder include pump plunger packing and pump performance, both of which are addressed in the UFSAR. Three possible boron injection flow paths provide adequate flow and pressure without an intact bladder.

91-CH-3010 This MNCR accepted localized grinding in the gasket seating area of the valve body of 3PCHNV369 which is damaged at the pressure boundary beyond design tolerances.

This MNCR did not introduce an unreviewed safety question. The damaged area does not affect the critical dimensions required for pressure boundary, and the ability of the valve to close and isolate the flow path is not affected. This valve is not part of the reactivity control system or the remote shutdown system. The margin of safety as defined in the basis for any Technical Specification is not reduced.

91-DG-1002 This MNCR allowed continued operation of the 1M0GAH01 Diesel Generator with a fuel supply tubing that was worn from vibrating against a shield, whereby one portion was bent

This MNCR did not introduce an unreviewed safety question. The oval portion of the tubing is not a reduction in the cross sectional area of the tubing, and therefore is not an

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MNCR Number	Description	Safety Evaluation Summary
	into an oval instead of the supplied round shape.	impediment to fuel flow. It is not an impediment to safety, as the tubing strength has not been diminished below the Code allowable level. The capability of the tubing to perform its specified function is not impaired.
91-DG-1007	This MNCR accepted using "as is" an intercooler lower cover inlet flange in Unit 1 which has less than minimum flange thickness, due to a machining mistake which resulted in countersinking one of the eight bolt holes on the raised face side of the flange.	This MNCR did not introduce an unreviewed safety question. The dimensional change of the hole is insignificant, and the sealing surface (raised face area) of the flange is not at all affected by the machining mistake and is intact. The flange's integrity is not affected, and its fit, form and function remain the same.
91-DG-1012	This MNCR accepted enlarging a countersunk hole on the DG air intercooler inlet/outlet end cover to accommodate a 3/4" SA-193 Gr B7 stud instead of the required 1/2"-13 UNC stud in Unit 1.	This MNCR did not introduce an unreviewed safety question. The use of a larger stud than required ensures the allowable stress limits per code as required by UFSAR Section 3.9.3 are met. It does not affect the function or structural integrity of the DG air intercooler inlet/outlet.
91-DG-3010	This MNCR accepted "as is" the operation of diesel generators without the alignment dowels on the fuel rack bracket assemblies in Unit 3.	This MNCR did not introduce an unreviewed safety question. It does not compromise, alter or degrade safety functions. The alignment dowel pins and holes do not support any important to safety equipment. Their absence does not affect the ability of the diesel engine to start and run, thereby maintaining the existing margin of safety.
91-DG-3032	This MNCR accepted ("use as is") reworked stud holes for the waterbox cover in Unit 3 that are unsatisfactory based on the measured hole depth being in excess of the 3 3/8" specified by the vendor and MNCR 91-DG-3028 rework disposition.	This MNCR did not introduce an unreviewed safety question. Form, fit or function of the intercooler is not affected. The probability of an accident described in the UFSAR is not increased by the "use as is" disposition. The probability of a malfunction of equipment important to safety would not be increased.
91-EC-9002	This MNCR justified that existing flows/new measured flows	This MNCR did not introduce an unreviewed safety question.



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MNCR Number	Description	Safety Evaluation Summary
91-EW-3004	through the cooling coils in all three Units are adequate for safe operation of the plant even though wrong flow and pressure drop relationships (in establishing adequate flow rates of essential chilled water to ESF air handling units) were used. This MNCR accepted changing relief valve flange material in Unit 3 from 70-30 Cu-Ni to SA 182-316 as an alternate.	The proposed minimum design flows do not preclude the ability of the EC system or ESF air handling units to perform their safety functions. There is no impact on the safety design basis of the EC system by this change, and the margin of safety is not reduced. This MNCR did not introduce an unreviewed safety question. No new accident or malfunction is postulated. The alternate material is compatible with the system chemistry, is the same as that specified in material class HGCA for system components in spray pond water service, and was selected to eliminate galvanic corrosion.
91-EW-3007	This MNCR accepted using 316 ss (SA-182-316) as an alternate to 70-30 CuNi for the relief valve flange in Unit 3.	This MNCR did not introduce an unreviewed safety question. No new accident or malfunction is postulated. The alternate material is compatible with the system chemistry, is the same as that specified in material class HGCA for system components in spray pond water service, and was selected to eliminate galvanic corrosion.
91-HP-1005	This MNCR allowed the continued operation of the containment post-LOCA hydrogen analyzer in Unit 1 with the possibility of a non-class failure which would render the analyzer inoperable until corrective action could be taken.	This MNCR did not introduce an unreviewed safety question. If PASS check valve CV-33 fails, allowing sufficient liquid to backflow into the A train hydrogen analyzer suction line and rendering the analyzer inoperable, the B train analyzer would be available to ensure ability to control hydrogen within containment. Probability of a LOCA and simultaneous failure of check valve CV-33 is less than the acceptable limit of 1.0 EE-6; therefore, the A train analyzer would function as described in UFSAR 6.2.5.
91-HP-3010	This MNCR allowed the mating of a Swagelok male tee fitting with a Gyrolok female fitting within the Unit 3A train hydrogen analyzer panel in order to connect the sample tubing to the bypass pressure control valve.	This MNCR did not introduce an unreviewed safety question. It does not alter the design, function or method by which the hydrogen analyzer performs its required functions. Pressure testing to 90 psig (1.5 times that expected in

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MNCR Number	Description	Safety Evaluation Summary
91-LR-1006	This MNCR reworked the fire level indicators on tanks LRN-T01A,B,C and LRN-T04A&B in Unit 1 to conform to plant design, as the level indicator transmitter valve manifolds are tubed incorrectly with respect to 13-J-ZZS-141.	containment following a LOCA) has shown the Swagelok/Gyrolok connection does not leak. If a connection were to fail and the A train analyzer is rendered inoperable, the redundant B train hydrogen analyzer is available to ensure control of hydrogen within containment. This MNCR did not introduce an unreviewed safety question. Probability of leakage of radioactive liquid is bounded by the analysis described in the UFSAR Section 15.7.2 since this tubing arrangement is functionally equivalent to the original plant configuration and installation drawings. The level indication and tank are not connected to, and do not interface with, any equipment important to safety.
91-LR-2007	This MNCR reworked the fire level indicators on tanks LRN-T01A,B,C and LRN-T04A&B in Unit 2 to conform to plant design, as the level indicator transmitter valve manifolds are tubed incorrectly with respect to 13-J-ZZS-141.	This MNCR did not introduce an unreviewed safety question. Probability of leakage of radioactive liquid is bounded by the analysis described in the UFSAR Section 15.7.2 since this tubing arrangement is functionally equivalent to the original plant configuration and installation drawings. The level indication and tank are not connected to, and do not interface with, any equipment important to safety.
91-LR-3008	This MNCR reworked the fire level indicators on tanks LRN-T01A,B,C and LRN-T04A&B in Unit 3 to conform to plant design, as the level indicator transmitter valve manifolds are tubed incorrectly with respect to 13-J-ZZS-141.	This MNCR did not introduce an unreviewed safety question. Probability of leakage of radioactive liquid is bounded by the analysis described in UFSAR Section 15.7.2 since this tubing arrangement is functionally equivalent to the original plant configuration and installation drawings. The level indication and tank are not connected to, and do not interface with, any equipment important to safety.
91-QD-1070	This MNCR accepted relocation of emergency light fixture SAL-72D-03-120-02 in Unit 1 to provide enhanced illumination for operation of safe shutdown valves 1PEWBV108, V1185 and V225 and a hose station in the Auxiliary Building.	This MNCR did not introduce an unreviewed safety question. The relocation of the emergency light to the new location involves non-safety related equipment and does not affect consequences of an accident previously evaluated. This

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MNCR Number	Description	Safety Evaluation Summary
91-00-2069	This MNCR accepted relocation of emergency light fixture SAL-720-03-120-02 in Unit 2 to provide enhanced illumination for operation of safe shutdown valves 2PEW8V108, V1185 and V225 and a hose station in the Auxiliary Building.	change does not alter the intent of the original design. This MNCR did not introduce an unreviewed safety question. The relocation of the emergency light to the new location involves non-safety related equipment and does not affect consequences of an accident previously evaluated. This change does not alter the intent of the original design.
91-00-3057	This MNCR accepted relocation of emergency light fixture SAL-720-03-120-02 in Unit 3 to provide enhanced illumination for operation of safe shutdown valves 3PEW8V108, V1185 and V225 and a hose station in the Auxiliary Building.	This MNCR did not introduce an unreviewed safety question. The relocation of the emergency light to the new location involves non-safety related equipment and does not affect consequences of an accident previously evaluated. This change does not alter the intent of the original design.
91-RC-3009	This MNCR accepted installing tube plugs and stakes in defective or degraded tubes in Unit 3 (identified during eddy current and supplementary inspections of the tubes) to restore integrity of the RCS pressure boundary.	This MNCR did not introduce an unreviewed safety question. The plugs to be installed are designed and analyzed to the same design conditions as the steam generators themselves. The installation of the plugs restores the integrity of the RCS pressure boundary. The effects of plug failure are bounded by the existing tube rupture analysis.
91-RC-3010	This MNCR accepted installing plugs in a SGB Unit 3 tube to restore the integrity of the RCS pressure boundary by sealing a minor defect just above the tube to tubesheet weld.	This MNCR did not introduce an unreviewed safety question. Per previous CE analysis, up to 990 tubes per SG can be plugged before SG heat transfer performance, core thermal margin and RCS flow rate would be affected. The Unit 3 cycle 3 safety analysis assumes 400 tubes per SG are plugged. With this one tube plugged, the total for SGB is 81. The effects of plug failure are bounded by the existing tube rupture analysis.
91-RI-3001	This MNCR accepted using "as is" two Fixed Incore Detector (FICD) Assemblies in Unit 3 which have radial cracks in their flex housings.	This MNCR did not introduce an unreviewed safety question. The FICD and the CET (required by QSPDS for measurement of ICC) are monitoring systems, and failure of either system would not lead to an accident or affect the frequency of any

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MNCR Number	Description	Safety Evaluation Summary
91-RJ-3004	This MNCR accepted using "as is" the RIS bracket in Unit 3 until a COLSS outage, when the condition and alignment of the original mounting nut is determined to be acceptable to install the bracket as designed.	analyzed conditions. Also, due to the excess of FICDs and CETs, a failure of both FICD assemblies still allows both systems to perform their function and meet Technical Specification operability requirements. Integrity of the RCPB is not affected. This MNCR did not introduce an unreviewed safety question. The RISs are not required for plant safety since they do not initiate any direct safety related function during incidents of moderate frequency, infrequent accidents or postulated limiting faults. Also, seismic qualification is not diminished by this MNCR.
91-SG-3023	This MNCR accepted using "as is" line 3PSGEL014 even though its minimum wall thickness of .728" does not conform to ASME B&PV Code, which requires piping to be fabricated with a wall thickness not less than 12 1/2% of the nominal wall thickness (which equals .739").	This MNCR did not introduce an unreviewed safety question. Neither the structural integrity of the line nor the reliability of the system is altered. The line fits the design requirements for Class 2 piping, and therefore the margin of safety and its associated bases are not reduced.
91-SG-3024	This MNCR accepted the bottom tapping of body/bonnet closure stud holes to obtain additional, and actual minimum, thread engagement for Atmospheric Dump Valve (ADV) 3JSGAHV0179.	This MNCR did not introduce an unreviewed safety question. The ADV body/bonnet closure joint integrity is not adversely affected by these repairs, and as such, the Main Steam System remains unchanged. The accident analysis and design-bases of the UFSAR Section 15 are unchanged and still valid. Also, the margin of safety is not changed since the ability of the ADV to perform its safety function is not affected.
91-SI-1048	This MNCR accepted replacing a broken barrier on the terminal block in solenoid valve 1JSIBUV0602 with P/N S1140-14-7 because replacement P/N S1140-14-3 was unavailable on site.	This MNCR did not introduce an unreviewed safety question. The replacement terminal block is identical to the original with the exception of terminal identification numbers 6 through 10 being stenciled on it, and it has the same model number as the original. Replacing the broken terminal block does not affect the function of the SI system in any way.

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MNCR Number	Description	Safety Evaluation Summary
91-SI-3033	This MNCR allowed enlarging the depth of one of four bolt holes holding the handwheel operator in Unit 3 in place, which has stripped out, and inserting a longer fastener.	This MNCR did not introduce an unreviewed safety question. Neither the ability of the valve nor the HPSI system to perform its safety related function is affected. Also, this change does not affect any aspect of the operation or function of valve SI637, and thus no change to the probability of a malfunction exists.

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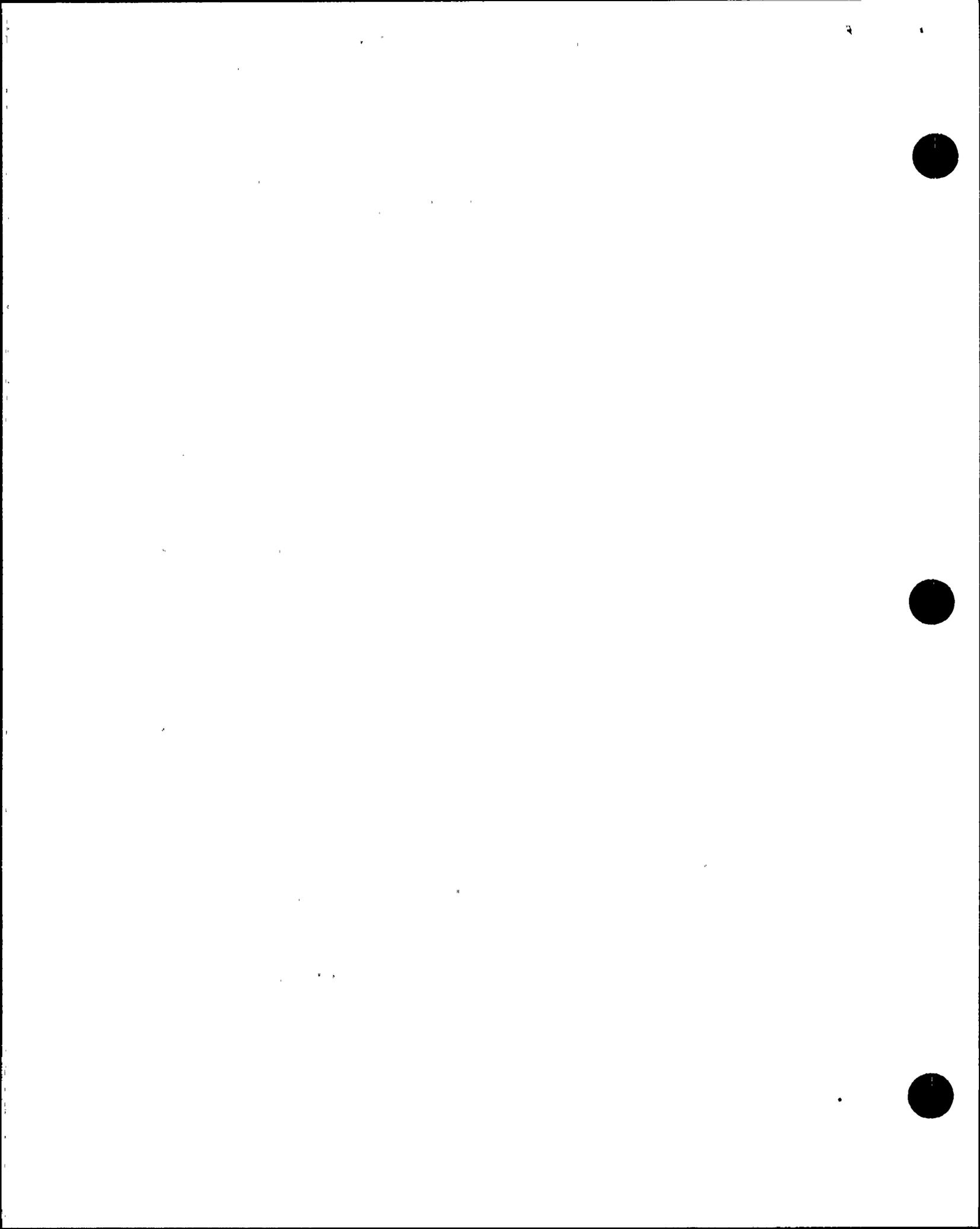
THOD Number	Description	Safety Evaluation Summary
1-87-SP-010	This temporary modification added an actibrome chemical addition skid to the spray pond hypochlorite injection system to improve chemistry control..	This temporary modification did not introduce an unreviewed safety question. Actibrome is compatible with system materials and enhances hypochlorite capability. This change enhances chemical control within the framework of existing Technical Specification 6.8.4.f. Should this THOD fail to perform, the existing hypochlorite system will continue to operate as before. No challenges to nuclear safety are created.
1-89-AR-046	This temporary modification installed heat tracing, controllers, insulation and associated hardware on process sample piping due to excessive moisture found in RU-141 sample lines and particulate and iodine filters.	This temporary modification did not introduce an unreviewed safety question. It brings RU-141 back into conformance with Technical Specification 997-505 and increases the reliability of RU-141 to obtain representative samples by eliminating moisture; thus, margin of safety is increased.
1-89-FW-073	This temporary modification installed a new type of oil seal to the inboard bearing housings of the Main Feedwater Pumps due to the current housings leaking oil.	This temporary modification did not introduce an unreviewed safety question. A different type of oil seal does not affect the design, operation and/or response of the FW system. The interface between FW and other systems is not affected; there is no FW system impact to cause an important to safety equipment malfunction. Nuclear safety is not challenged, as the FW system is not required for safe shutdown of the plant.
1-89-SG-036	This temporary modification replaced two existing tubing elbows with two tees and two manual shutoff valves on the actuator for valve 1JSGAHV184 to allow measurement of differential pressure across the atmospheric dump valve operator.	This temporary modification did not introduce an unreviewed safety question. Probability of failure of the tee and valve is not greater than that of the elbow, since manufacturing standards are equivalent. The tees and valves have no other interfaces and no more failure modes than the original elbows. Failure of the installed valves would not increase probability of loss of offsite power, possibility of uncontrolled CEA withdrawal from a power condition, or possibility of a steam generator tube rupture with a loss of



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THOD Number	Description	Safety Evaluation Summary
1-89-SG-037	This temporary modification replaced two existing tubing elbows with two tees and two manual shutoff valves on the actuator for valve 1JSGBH178 to allow measurement of differential pressure across the atmospheric dump valve operator.	offsite power and a fully stuck open ADV. This temporary modification did not introduce an unreviewed safety question. Probability of failure of the tee and valve is not greater than that of the elbow, since manufacturing standards are equivalent. The tees and valves have no other interfaces and no more failure modes than the original elbows. Failure of the installed valves would not increase probability of loss of offsite power, possibility of uncontrolled CEA withdrawal from a power condition, or possibility of a steam generator tube rupture with a loss of offsite power and a fully stuck open ADV.
1-89-SG-038	This temporary modification replaced two existing tubing elbows with two tees and two manual shutoff valves on the actuator for valve 1JSGBH185 to allow measurement of differential pressure across the atmospheric dump valve operator.	This temporary modification did not introduce an unreviewed safety question. Probability of failure of the tee and valve is not greater than that of the elbow, since manufacturing standards are equivalent. The tees and valves have no other interfaces and no more failure modes than the original elbows. Failure of the installed valves would not increase probability of loss of offsite power, possibility of uncontrolled CEA withdrawal from a power condition, or possibility of a steam generator tube rupture with a loss of offsite power and a fully stuck open ADV.
1-89-SG-039	This temporary modification replaced two existing tubing elbows with two tees and two manual shutoff valves on the actuator for valve 1JSGAH179 to allow measurement of differential pressure across the atmospheric dump valve operator.	This temporary modification did not introduce an unreviewed safety question. Probability of failure of the tee and valve is not greater than that of the elbow, since manufacturing standards are equivalent. The tees and valves have no other interfaces and no more failure modes than the original elbows. Failure of the installed valves would not increase probability of loss of offsite power, possibility of uncontrolled CEA withdrawal from a power condition, or possibility of a steam generator tube rupture with a loss of offsite power and a fully stuck open ADV.



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THOD Number	Description	Safety Evaluation Summary
1-89-SQ-066	This temporary modification installed heat tracing to process sample lines to ensure sample temperature remains above the dew point, due to existing conditions possibly contributing to condensate collecting in the P&I filter chambers and gas sample chamber of 1JSQNRU0142.	This temporary modification did not introduce an unreviewed safety question. It increases the reliability of RE-0142 to obtain representative samples by eliminating moisture. Therefore, it increases the margin of safety by ensuring a more representative sample for analysis. It does not increase probability or consequences of any malfunction of equipment important to safety.
1-89-SQ-091	This temporary modification isolated the detector housings of 1JSQNRU0141 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since the operation of the detectors is not affected, there is no increase in accident probability. These detectors continue to respond as designed during normal conditions as well as during an accident.
1-89-SQ-092	This temporary modification isolated the detector housings of 1JSQNRU0145 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since the operation of the detectors is not affected, there is no increase in accident probability. These detectors continue to respond as designed during normal conditions as well as during an accident.
1-89-SQ-093	This temporary modification isolated the detector housings of 1JSQNRU0143 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since the operation of the detectors is not affected, there is no increase in accident probability. These detectors continue to respond as designed during normal conditions as well as during an

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TMOD Number	Description	Safety Evaluation Summary
1-90-SC-038	This temporary modification cut Steam Generator Wet Layup Isolation valve SCNV0044 from the line and installed butt weld pipe caps where the valve was removed, due to it leaking past the seat and not being repairable.	accident. This temporary modification did not introduce an unreviewed safety question. It does not increase probability or consequences of a malfunction of equipment important to safety, as the affected portions of the Blowdown and Steam Generator Wet Layup System have no safety related function as described in UFSAR Section 10.4.6.1. Also, this action does not involve any quality related structures, components and/or systems described in UFSAR Section 3.2.
1-90-SQ-017	This temporary modification installed a filter capacitor across the 24 VDC input at the flow control enclosure to eliminate the possibility of an excessive high count rate on 1JSQBRU0143/0144 which is caused by noise generated in, or conducted through, the flow control system.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in the UFSAR. This TMOD reduces the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction.
1-90-SQ-018	This temporary modification installed a filter capacitor across the 24 VDC input at the flow control enclosure to eliminate the possibility of an excessively high count rate on 1JSQBRU0141/0142 which is caused by noise generated in, or conducted through, the flow control system.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in the UFSAR. This TMOD reduces the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction.
1-90-SQ-019	This temporary modification installed a filter capacitor across the 24 VDC input at the flow control enclosure to eliminate the possibility of an excessively high count rate on 1JSQBRU0145/0146 which is caused by noise generated in, or conducted through, the flow control system.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in the UFSAR. This TMOD reduces the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction.
1-90-ZC-044	This temporary modification provided temporary power for maintenance activities at and around the containment Polar	This temporary modification did not introduce an unreviewed safety question. It supplies temporary electrical power

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TMO Number	Description	Safety Evaluation Summary
	Crane 1-M-ZCN-G01.	from Non-Class 1E equipment to other Non-Class 1E equipment that is needed to stabilize and support plant conditions during the outage time period of the associated Non-Class 1E supply bus. Consideration has been made for safety of personnel and equipment based upon ground fault protection and downstream breaker coordination.
1-91-QB-002	This temporary modification provided electrical power to distribution panel EQBND84 from panel EQAND09A while the phasing capacitors in regulator EQBBV02 (which is the isolation transformer used to provide power to panel EQBND84) are being replaced.	This temporary modification did not introduce an unreviewed safety question. The affected essential lighting is train related, and only one train panel is de-energized at a time; therefore, one train is always available. The fire protection circuits affected by this change have a battery backup supply; therefore, operation of the fire protection system is not degraded. If the essential lighting fails, emergency lighting would energize using an uninterruptible power supply as a power source.
1-91-QB-003	This temporary modification provided electrical power to distribution panel EQBND84 from panel EQAND09A while the phasing capacitors in regulator EQBBV02 (which is the isolation transformer used to provide power to panel EQBND84) are being replaced.	This temporary modification did not introduce an unreviewed safety question. The affected essential lighting is train related, and only one train panel is de-energized at a time; therefore, one train is always available. The fire protection circuits affected by this change have a battery backup supply; therefore, operation of the fire protection system is not degraded. If the essential lighting fails, emergency lighting would energize using an uninterruptible power supply as a power source.
1-91-SK-001	This temporary modification relocated the access control hardware at a vital area access control point during a refueling outage to reduce radiation exposure to security personnel during the outage.	This temporary modification did not introduce an unreviewed safety question. The temporarily relocated access control hardware performs an identical function to that performed during normal operation. Hence, there is no change in plant safety.
2-86-CP-058	This temporary modification installed a valve and hose at an	This temporary modification did not introduce an unreviewed

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existing drain fitting on the bottom of the plant vent stack to enable draining water which collects at this point.

safety question. The plant vent stack is not quality related, and there is no effect on any quality related system or component. The drainage is to a 55 gallon drum. The drainage may include tritiated water and may be slightly contaminated. The drainage will be disposed of via a radioactive drain in the radwaste building. Leakage of gases from a potential unmonitored release path is prevented by a minimum 18" loop seal during operation and additionally by a shut-off valve when draining is secured.

2-87-SG-058

This temporary modification relocated the splice connection from the conduit at 2JSGAHY179A to terminal box 2ESGAJ12.

This temporary modification did not introduce an unreviewed safety question. The splice and its wiring are functionally equivalent to the original design. There is no increase in the probability or consequences of an accident or malfunction previously evaluated, and margin of safety is not reduced.

2-87-SV-044

This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.

This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.

2-87-SV-045

This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.

This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.

2-87-SV-046

This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.

This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not

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TMOD Number	Description	Safety Evaluation Summary
2-87-SV-047	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.	safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
2-87-SV-048	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
2-87-SV-049	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for early warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
2-88-SV-014	This temporary modification changed danger setpoints on 02KSVNYSHH-0027/8 for early warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
2-88-SV-015	This temporary modification changed alert setpoints on 02KSVNYSH-0027/8 for early warning of potential RCP shaft	This temporary modification did not introduce an unreviewed safety question. This system is not safety related, and it performs no control function. It is used for diagnostics and information, and simply provides earlier annunciation of excessive shaft displacement. The operation of the system is not changed.

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TMOD Number	Description	Safety Evaluation Summary
	vibration.	performs no control function. It is used for diagnostics and information, and simply provides earlier annunciation of excessive shaft displacement. The operation of the system is not changed.
2-89-FH-059	This temporary modification lifted and re-landed the leads in the dual setpoint module of the load cell for the 10 ton Fuel Building crane, as the leads were "crossed," thus the load setpoints engaged in the wrong mode of crane operation (fuel mode vs. container mode).	This temporary modification did not introduce an unreviewed safety question. The new fuel and spent fuel storage racks are designed to provide adequate mechanical separation of fuel assemblies under postulated accident conditions. There is no other equipment important to safety in the area. Since only one fuel bundle can or will be handled at a time, any accident can only involve the failure of a single bundle as in UFSAR 15.7.4.1. This analyzed accident bounds anything which can occur.
2-89-SH-062	This temporary modification removed the grounded heater for sensor #6 on channel "A" RVLMS, and installed a load dropping resistor in its place to allow use of the three remaining heaters in the circuit.	This temporary modification did not introduce an unreviewed safety question. The only system affected by the TMOD would be QSPDS/RVLMS. Loss of the TMOD would cause a loss of the plenum level indication for "A" train only, and would not cause an accident of a different type than previously evaluated. RVLMS indication would still be provided by "B" channel.
2-89-SQ-004	This temporary modification isolated the detector housings of RU-141 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.
2-89-SQ-005	This temporary modification isolated the detector housings of RU-143 from plant ground and connected them to signal	This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation

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ground to reduce the spurious high readings.

monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.

2-89-SQ-057

This temporary modification isolated the detector housings of 2SJQBRU0145 from plant ground and connected them to signal ground to reduce spurious high readings.

This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.

2-90-CH-075

This temporary modification accepted replacing the existing charging pump plunger packing with a new packing to decrease the frequency of plunger repacks.

This temporary modification did not introduce an unreviewed safety question. In the unlikely event the new packing causes the pump to be inoperable, two redundant pumps are available to meet Technical Specification requirements. Migration of contaminants into the RCS is unlikely since pump process pressure is higher than seal lube pressure, which tends to flush the contaminants into the seal lube system. However, should contaminants migrate into the RCS, plant chemistry would detect and correct the problem.

2-90-CH-076

This temporary modification replaced the existing charging pump baffle seal packing with new Garlock packing, because the charging pump power and baffle seal packing were unable to maintain a leak tight seal during pump operation, which contributed to Total Organic Contamination problems in the units.

This temporary modification did not introduce an unreviewed safety question. It only involves a packing configuration replacement and does not affect pump operability. In the unlikely event that the new packing should cause the pump to become inoperable, two redundant charging pumps are available to meet the Technical Specification requirements. (This TMOD is only performed on one charging pump.)

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TMOD Number	Description	Safety Evaluation Summary
2-90-CM-070	This temporary modification added a temporary recirculating line from the Chemical Waste Transfer Pump 2CMN-P03B discharge to the Chemical Waste Neutralizer Tanks, and added a Circulating Tank Eductor to the end of the recirculating line inside tank 2CMN-T01B to perform mixing of tank liquids.	This temporary modification did not introduce an unreviewed safety question. The increase in corrosion rate, using stainless steel pipe, is not sufficient enough to increase probability or consequences of a previously evaluated accident. These additions in no way affect the function and/or operation of the equipment and floor drainage system, the concentration of radioactive material discharged to the Chemical Waste Neutralizer Tanks, or the ability to sample and analyze tank contents prior to batchwise discharge to the onsite evaporation pond.
2-90-CM-072	This temporary modification added a temporary recirculating line from the Chemical Waste Transfer Pump 2CMN-P03A discharge to the Chemical Waste Neutralizer Tanks, and added a Circulating Tank Eductor to the end of the recirculating line inside tank 2CMN-T01A to perform mixing of tank liquids.	This temporary modification did not introduce an unreviewed safety question. The increase in corrosion rate, using stainless steel pipe, is not sufficient enough to increase probability or consequences of a previously evaluated accident. These additions in no way affect the function and/or operation of the equipment and floor drainage system, the concentration of radioactive material discharged to the Chemical Waste Neutralizer Tanks, or the ability to sample and analyze tank contents prior to batchwise discharge to the onsite evaporation pond.
2-90-CW-071	This temporary modification provided a Type "E" thermocouple wire from TE point 303 to an accessible location at the base of the motor (2CWNP01B) to attach a temperature indication meter until compatible instrumentation is procured and installed.	This temporary modification did not introduce an unreviewed safety question. The change maintains the status of Circ. Water upper guide bearing of motor 2MCWNP01B locally. The motor is non-class, not associated with the NSSS systems of the plant, and not classified for usage for important to safety equipment or systems. Equipment status would still be available for Control Room monitoring from the stator and thrust bearing temperature indicators.
2-90-FW-038	This temporary modification accepted installing a new type of oil seal to the inboard bearing housing of the main	This temporary modification did not introduce an unreviewed safety question. This installation does not affect

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TMOD Number	Description	Safety Evaluation Summary
	feedwater pumps to remedy an oil leak.	evaluation of nuclear safety or plant disposition as included in the UFSAR. Use of a different type of seal does not alter system operation or performance. Response and reaction of the system to plant/emergency conditions are not changed. The FW system has no safety design basis, and is not required for the safe shutdown of the plant.
2-90-MT-085	This temporary modification removed the #7 bearing signal to the high vibration alarm/trip boards to prevent a possible main turbine trip due to spurious vibration spikes on bearing #7.	This temporary modification did not introduce an unreviewed safety question. Both the main turbine and the high bearing vibration protection are not required to provide any safety function. Operator action based on control room annunciation is used to trip the turbine in the event of high vibration on bearing #7. Therefore, the turbine functions as described in UFSAR 10.2, and consequences of a previously described accident are not increased.
2-90-QM-083	This temporary modification added a splice connection kit to circuits 4-02-04A&B on line LR-N-109-HADA between valve V-139 and the suction of the liquid radwaste pump LRN P04A. This will facilitate reinstallation of the heat trace following previous maintenance without requiring removal of a wall seal, and also allow a point where the heat trace line can be more easily connected/removed for equipment maintenance.	This temporary modification did not introduce an unreviewed safety question. The splice kit does not change equipment function. The heat trace is HQ and used to decrease maintenance requirements of a borated system by keeping boron in solution; its function and operation remain unchanged. It just adds a connection box which improves capability of equipment and does not remove or reduce equipment availability. The UFSAR does not address or depend on heat trace circuits on the liquid radwaste pump LRN P04A.
2-90-RC-069	This temporary modification lifted leads and isolated backup heater A03 to prevent tripping the breaker when the heater bank is energized.	This temporary modification did not introduce an unreviewed safety question. The backup heater is not needed to mitigate a design basis accident. The worst case accident scenario is bounded by existing UFSAR analyses. Natural circulation is not affected due to this TMOD affecting non-class heaters only, which are not needed for safe shutdown. No RCS boundary or class equipment is affected.



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TMOD Number	Description	Safety Evaluation Summary
2-90-RC-074	This temporary modification isolated proportional heater B17 to prevent tripping the breaker while heaters 805 & B11 are energized.	This temporary modification did not introduce an unreviewed safety question. The proportional heater is not needed to mitigate a design basis accident. The worst case accident scenario is bounded by existing UFSAR analyses. Natural circulation is not affected due to this TMOD affecting non-class heaters only, which are not needed for safe shutdown. No RCS boundary or class equipment is affected.
2-90-SF-047	This temporary modification made adjustments and wiring changes to the ground detect meters (GDMs) associated with the CEDMCS motor generators to allow enhanced ground detection and annunciation.	This temporary modification did not introduce an unreviewed safety question. It helps insure that operators are aware of grounds in the CEDMCS system, which helps to avoid a single or multiple CEA slip by limiting motion of CEAs with ground CEDM coils. GDM modifications have no effect on CEDMCS operation, operation of CPCs, CEACs, PPS trip functions or trip breakers. It does not affect rod worth or shutdown margin.
2-90-SQ-008	This temporary modification installed a filter capacitor on the 24VDC supply to the flow system electronics to reduce voltage fluctuations with a high probability of being counted as radiation pulses in the monitor high range gas channels.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detector's calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since the operation of the detectors is not affected, there is no increase in accident probability. This TMOD is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction.
2-90-SQ-009	This temporary modification installed a filter capacitor on the 24VDC supply to the flow system electronics to reduce voltage fluctuations with a high probability of being counted as radiation pulses in the monitor high range gas channels.	This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since the operation of the detectors is not affected, there is no increase in accident probability. This TMOD is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby

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TMOD Number	Description	Safety Evaluation Summary
2-90-SQ-028	This temporary modification installed a filter capacitor on the 24VDC supply to the flow system electronics to reduce voltage fluctuations with a high probability of being counted as radiation pulses in the monitor high range gas channels.	reducing probability of equipment malfunction. This temporary modification did not introduce an unreviewed safety question. It does not affect the detectors' calibration or operation as described in UFSAR Sections 11.5.2.1.1.7 and 11.5.2.1.6.2. Since operation of the detectors is not affected, there is no increase in accident probability. This TMOD is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction.
2-90-SR-081	This temporary modification installed a jumper, consisting of flanges with nipples, and a length of rubber hose around the spent resin/dewatering pump, as its drive mechanism failed, and replacement spare parts were not readily available.	This temporary modification did not introduce an unreviewed safety question. This pump and the associated piping are not safety related and have no safety function. Probability of leakage of radioactive liquid as discussed in UFSAR 15.7.2 is not increased, since the pressure rating of the hose, 150 PSI, is essentially the same as the operating discharge pressure of the pump, 120 PSI. This change to the facility is bounded by that analysis.
2-90-SV-073	This temporary modification cut the input lead at pin A of Connector P-223 at the 2JSVNC01 Cabinet to remove the "X" proximity probe input to Channel-23 and the erratic signal.	This temporary modification did not introduce an unreviewed safety question. The RCP vibration monitoring Channels are an information system only. They do not perform any control function and do not interface with any safety systems. They are not addressed in the Technical Specifications and are not required for plant safe shutdown.
2-91-DS-001	This temporary modification added a temporary DS supply line to the blowdown stack V478 from the railcar washdown pad DS connection located on 2-087HBDB-2" to supply cooling water to the blowdown stack during resoldering a leaking elbow joint.	This temporary modification did not introduce an unreviewed safety question. The addition of a temporary supply line does not affect the ability of the rail car washdown or the function and/or operation of the domestic water supply system. This action does not involve any quality related structures, components and/or systems.

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TMOD Number	Description	Safety Evaluation Summary
2-91-DS-035	This temporary modification added a temporary DS supply line to the blowdown stack V478 from the railcar washdown pad DS line to supply cooling water to the blowdown stack during a repair.	This temporary modification did not introduce an unreviewed safety question. The addition of a temporary supply line does not affect the ability of the rail car washdown or the function and/or operation of the domestic water supply system. This action does not involve any quality related structures, components and/or systems.
2-91-HA-024	This temporary modification installed pneumatic jumpers to keep the "B" Train Auxiliary Building Isolation Dampers open during the 125VDC PK "B" bus outage.	This temporary modification did not introduce an unreviewed safety question. Technical Specification 3/4 7.8 governs the ESF Pump room Air Exhaust Cleanup System. Both filtration units are still available to use. Only the "B" train isolation dampers are affected by this TMOD. The "A" train isolation dampers are still available to isolate the Auxiliary Building should isolation become required.
2-91-HA-027	This temporary modification installed pneumatic jumpers to keep the "A" Train Auxiliary Building Isolation Dampers open during the 125VDC PK "A" bus outage.	This temporary modification did not introduce an unreviewed safety question. The "A" Train Auxiliary Building Isolation Dampers are not available for isolation while the jumpers are installed. The "B" train isolation dampers are available to isolate the Auxiliary Building during a SIAS or by manual isolation. Technical Specification 3/4 7.8 governs the ESF Pump Room Air Exhaust Cleanup System.
2-91-HA-031	This temporary modification installed pneumatic jumpers to keep the "A" Train Auxiliary Building Isolation Dampers open during the 125VDC PK "A" bus outage.	This temporary modification did not introduce an unreviewed safety question. The "A" Train Auxiliary Building Isolation Dampers are not available for isolation while the jumpers are installed. The "B" train isolation dampers are available to isolate the Auxiliary Building during a SIAS or by manual isolation. Technical Specification 3/4 7.8 governs the ESF Pump Room Air Exhaust Cleanup System.
2-91-HF-025	This temporary modification installed pneumatic jumpers to keep the "A" Train Fuel Building Isolation Dampers open	This temporary modification did not introduce an unreviewed safety question. The "A" Train Fuel Building Isolation



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TMOD Number	Description	Safety Evaluation Summary
	during the 125VDC PK "A" bus outage.	Dampers are not available for isolation while the jumpers are installed. The "B" train isolation dampers are available to isolate the Fuel Building during a SIAS or a FBEVAS. Technical Specification 3/4 9.12 governs the Fuel Building Ventilation System whenever irradiated fuel is in the storage pool.
2-91-HF-026	This temporary modification installed pneumatic jumpers to keep the "B" Train Fuel Building Isolation Dampers open during the 125VDC PK "B" bus outage.	This temporary modification did not introduce an unreviewed safety question. The "B" Train Fuel Building Isolation Dampers are not available for isolation while the jumpers are installed. The "A" train isolation dampers are available to isolate the Fuel Building during a SIAS or a FBEVAS. Technical Specification 3/4 9.12 governs the Fuel Building Ventilation System whenever irradiated fuel is in the storage pool. Should the "A" train dampers fail for any reason, requirements of Technical Specification 3/4 9.12.b are to be followed.
2-91-IA-022	This temporary modification provided an alternate cooling water supply to the IA compressors during the time the normal cooling water supply (TC) is unavailable (during the Unit 2 outage) by routing the Domestic Water (DS) system through the compressors.	This temporary modification did not introduce an unreviewed safety question. The IA, DS and TC systems are not safety related, and the scope of this TMOD does not decrease the ability of the IA or DS systems to adequately supply the normal operating plant demands. There is sufficient capacity for the DS to effectively cool the IA compressors, although each compressor will be operated only as needed. The primary breathing/service air supply is provided by the portable backup compressor with the TMOD compressor used if necessary.
2-91-IA-032	This temporary modification provided for a backup compressed gas supply (a temporary nitrogen bottle) to the fuel transfer canal gate seal during a planned instrument air (IA) system outage.	This temporary modification did not introduce an unreviewed safety question. This TMOD is to be in place during mode 6 with no fuel being transferred and no fuel in the canal. The IA system is not safety related, and the transfer canal seal is to remain sealed with this TMOD in place; the



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THOD Number	Description	Safety Evaluation Summary
2-91-NH-002	This temporary modification supplied temporary Non-Class 1E power (480 VAC) from cubicle 2-E-NHN-M0426 to operate a dry active waste, high force compactor (SAVEPAK Compact 1) for a maximum of 30 days.	nitrogen bottles ensure the gate seals remain pressurized. This temporary modification did not introduce an unreviewed safety question. The change only affects Non-Class 1E electrical power, temporarily feeding non-safety related equipment. Consideration has been made for safety of personnel and equipment based upon ground fault protection and downstream breaker coordination.
2-91-OB-005	This temporary modification provided electrical power to distribution panel EQBND84 from panel EQAND09A while the phasing capacitors in regulator EQBBV02 (which is the isolation transformer used to provide power to panel EQBND84) are being replaced.	This temporary modification did not introduce an unreviewed safety question. The affected essential lighting is train related, and only one train panel is de-energized at a time; therefore, one train is always available. The fire protection circuits affected by this change have a battery backup supply, therefore operation of the fire protection system is not degraded. If the essential lighting fails, emergency lighting would energize using an uninterruptible power supply as a power source.
3-86-CD-019	This temporary modification installed a 2" Conval Globe Valve in place of the 6" Globe Valve presently in use for the bypass loop around the Condensate Discharge Isolation Valve, because of valves 136/138/140 constantly blow packing due to system operation.	This temporary modification did not introduce an unreviewed safety question. The CD system is not a safety related or important to safety system, and does not supply or draw from safety related equipment. The valve is only used to put the system into operation and can fail to any position without any negative effect. This change does not affect the operation or response of the system, therefore the analysis of accident response remains unaffected.
3-87-CH-022	This temporary modification added pressure gauges to the discharge vent valves of each charging pump to aid in the determination of bladder integrity.	This temporary modification did not introduce an unreviewed safety question. The maximum possible leak due to a piping rupture/sever is within the existing analysis. The tubing and fittings pressure ratings exceed system pressures. All tubing used is isolable with a permanent plant valve. Also, small weights of piping added do not present a seismic

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TMOD Number	Description	Safety Evaluation Summary
3-87-NQ-045	This temporary modification installed two temporary cables at uninterruptable power supply 3E-NQN-D01 to power TDAS test equipment required for Unit 3 power ascension testing.	concern. This temporary modification did not introduce an unreviewed safety question. The NQ system is non-class in nature and thus not considered important to safety. The power that supplies test equipment is isolated from permanent plant equipment through circuit breakers and test probes. Internal and external circuit protection is provided on both the test equipment and the NQ panel supplying power.
3-87-SQ-034	This temporary modification installed noise suppression capacitors in the flow control system of radiation monitor 3JSQBRU0145 to eliminate/reduce the effects of electrical noise, eliminate spurious flow alarms, and allow for proper system operation.	This temporary modification did not introduce an unreviewed safety question. The subject radiation monitor affected by this modification is not taken into consideration in any accident analysis evaluated in the UFSAR. This TMOD does not alter the design intent or the mechanisms for failure of the equipment.
3-87-SV-041	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-87-SV-042	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-87-SV-043	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not

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TMOD Number	Description	Safety Evaluation Summary
3-87-SV-044	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement. This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-87-SV-046	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-87-SV-047	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-88-CH-022	This temporary modification installed a PVC flange and pipe tail piece in the acid inlet line to the CH Waste Neutralizing Tank due to an acid leak resulting from corrosion.	This temporary modification did not introduce an unreviewed safety question. It adds a nozzle reinforcing plate to the acid inlet nozzle to the CH Waste Neutralizing Tank. This equipment is not addressed in the UFSAR or Technical Specifications. Probability of this equipment malfunctioning is not of any importance to plant safety as per the UFSAR, and the margin of safety is not affected.
3-88-CH-023	This temporary modification installed a PVC flange and pipe	This temporary modification did not introduce an unreviewed



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TMO Number	Description	Safety Evaluation Summary
	tail piece in the acid inlet line to the CM Waste Neutralizing tank due to an acid leak resulting from corrosion.	safety question. It adds a nozzle reinforcing plate to the acid inlet nozzle to the CM Waste Neutralizing Tank. This equipment is not addressed in the UFSAR or Technical Specifications. Probability of this equipment malfunctioning is not of any importance to plant safety as per the UFSAR, and the margin of safety is not affected.
3-88-SQ-009	This temporary modification added software to the RMS mini-computer to enhance troubleshooting of loop communication problems.	This temporary modification did not introduce an unreviewed safety question. The addition of this system does not affect procedures, tests or experiments as described in the UFSAR. Probability and consequences of an accident previously evaluated or a malfunctioning of equipment important to safety are not increased.
3-88-SV-007	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-88-SV-008	This temporary modification lowered alert and alarm setpoints for the Reactor Coolant Pump Shaft Displacement for earlier warning of potential RCP shaft vibration.	This temporary modification did not introduce an unreviewed safety question. This system performs no control function and is used for diagnostics and information. It is not safety related and does not change the operation of the system. It simply provides earlier annunciation of excessive shaft displacement.
3-89-AR-041	This temporary modification installed heat tracing, controllers, insulation and associated hardware on process sample piping due to excessive moisture found in RU-141 sample lines and particulate and iodine filters.	This temporary modification did not introduce an unreviewed safety question. It brings RU-141 back into conformance with Technical Specification 997-505 and increases the reliability of RU-141 to obtain representative samples by eliminating moisture; thus, margin of safety is increased.

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TMOD Number	Description	Safety Evaluation Summary
3-89-CH-111	This temporary modification added a temporary tank fill connection on the acid supply fill line going to Chemical Waste Neutralizer Tanks 3CMNT01A/B due to the underground section of the acid supply line being plugged.	This temporary modification did not introduce an unreviewed safety question. The addition of a tank fill connection in no way affects the function and/or operation of the equipment and floor drainage system, the concentration of radioactive material discharged to the Chemical Waste Neutralizer Tanks, or the ability to sample and analyze the tank contents prior to its batchwise discharge to the onsite evaporation pond.
3-89-FW-048	This temporary modification installed a new type of oil seal (Byron Jackson) to the inboard bearing housings of the Main Feedwater Pumps due to the current housings leaking oil.	This temporary modification did not introduce an unreviewed safety question. A different type of oil seal does not affect the design, operation and/or response of the FW system. The interface between FW and other systems is not affected; there is no FW system impact to cause an important to safety equipment malfunction. Nuclear safety is not challenged, as the FW system is not required for safe shutdown of the plant.
3-89-PK-107	This temporary modification electrically jumpered cell 21 by installing 2 pairs of 3/0 AWG cable between cells 20 & 22, and removed intercell connectors for cell 21, due to cell 21 having a misaligned separator between the last two plates. This caused inadequate separation between a positive plate and a negative plate, which can result in premature failure of the cell due to internal shorting.	This temporary modification did not introduce an unreviewed safety question. Sufficient voltage still exists to support previously evaluated conditions. This TMOD does not affect any equipment other than the 3EPKDF14. The Class 1E batteries are designed to provide power during a blackout, and minimum required voltage levels are not impacted.
3-89-PK-121	This temporary modification electrically jumpered cell 40 out of 3EPKDF14 by installing two pairs of 3/0 AWG cable between cells 39 & 41 and removing intercell connectors for cell 40, due to a crack on the top of the cover of cell 40.	This temporary modification did not introduce an unreviewed safety question. Sufficient voltage still exists to support previously evaluated conditions. This TMOD does not affect any equipment other than the 3EPKDF14. The Class 1E batteries are designed to provide power during a blackout, and minimum required voltage levels are not impacted.

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TMOD Number	Description	Safety Evaluation Summary
3-89-SE-114	This temporary modification added a jumper wire across the normally closed contact of the Linear Calibrate Switch for the input signals to allow power operation without the potential of a unit trip due to excessive contact resistance of the Linear Calibrate Switch in the Operate position.	This temporary modification did not introduce an unreviewed safety question. The jumper ensures a signal path from the detector to signal conditioning drawer electronics to the instrumentation used by operators and the automatic protection system. Possibility of loss of detector signal is reduced, and probability of a challenge to safety systems is reduced.
3-89-SE-115	This temporary modification added a jumper wire across the normally closed contact of the Linear Calibrate Switch for the input signals to allow power operation without the potential of a unit trip due to excessive contact resistance of the Linear Calibrate Switch in the Operate position.	This temporary modification did not introduce an unreviewed safety question. The jumper ensures a signal path from the detector to signal conditioning drawer electronics to the instrumentation used by operators and the automatic protection system. Possibility of loss of detector signal is reduced, and probability of a challenge to safety systems is reduced.
3-89-SQ-088	This temporary modification added heat tracing to process sample lines to eliminate condensation inside the P&I filter chambers gas sample chambers of 3JSQRU0142.	This temporary modification did not introduce an unreviewed safety question. It increases the reliability of RE-0142 to obtain representative samples by eliminating moisture. Therefore, it increases the margin of safety by ensuring a more representative sample for analysis. It does not increase probability or consequences of any malfunction of equipment important to safety.
3-89-SQ-118	This temporary modification isolated the detector housings of 3JSQRU0141 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.

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TMOD Number	Description	Safety Evaluation Summary
3-89-SQ-119	This temporary modification isolated the detector housings of 3JSQNRU0143 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.
3-89-SQ-120	This temporary modification isolated the detector housings of 3JSQNRU0145 from plant ground and connected them to signal ground to reduce spurious high readings.	This temporary modification did not introduce an unreviewed safety question. It is intended to reduce the radiation monitor's susceptibility to spurious high readings, thereby reducing probability of equipment malfunction. This modification does not affect the detectors' calibration or operation. The detectors will continue to respond as designed during normal conditions as well as during an accident.
3-90-CH-014	This temporary modification replaced the existing charging pump plunger packing (UTEX B-2521-C) with a new packing (UTEX B-2769-C) to decrease the frequency of plunger repacks.	This temporary modification did not introduce an unreviewed safety question. The packing replacement is superior in strength to the original packing, and packing integrity is not affected. The only consequence of a packing failure is reduced charging pump flow due to leakage, which is analyzed in the UFSAR. In the unlikely event that the new packing causes the pump to become inoperable, two redundant pumps are available to meet Technical Specification requirements.
3-90-CH-015	This temporary modification replaced the existing charging pump baffle seal packing with new UTEX packing, because the charging pump power end baffle seal packing was unable to maintain a leak tight seal during pump operation, which contributed to Total Organic Contamination problems in the units.	This temporary modification did not introduce an unreviewed safety question. It only involves a packing configuration replacement and does not affect pump operability. In the unlikely event that the new packing should cause the pump to become inoperable, two redundant charging pumps are available to meet the Technical Specification requirements.



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TMOD Number Description

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(This TMOD is only performed on one charging pump.)

3-90-ES-027 This temporary modification disabled the INOP STATUS ALARM for the CEDM Norm ACU Fan due to fan 3H-HCN-A02C being inoperable.

This temporary modification did not introduce an unreviewed safety question. This change reduces circuit complexity and restores the ease in which the control room operator can identify possible accident causing events. Removal of the inoperable fan C alarm from the Safety-Related Display Instrumentation actually reduces probability of an accident by removing an inoperable fan C channel alarm and allowing continuous monitoring of the operable A channel fan. Consequences of a malfunction of equipment are reduced by 50% since the inoperable C channel fan and alarm are not operating and providing false statusing.

3-90-MA-029 This temporary modification lifted the PBA-x coil wire of the Main Transformer Bushing Potential device (PBA) which was causing PBA-x coil to cycle on/off.

This temporary modification did not introduce an unreviewed safety question. The PBA-x relay and the transformer's cooling fans have no effect on important to safety components and are not quality related. Lifting the PBA-x leads prevents the coil from shattering and damaging the relay. It does not affect any other operation.

3-90-NG-047 This temporary modification provided temporary non-class 1E 480VAC power from load center 3-E-NGN-L03D4 to motor control center 3D-NHN-M28 during the outage of 13.8KV switchgear 3ENNANS02.

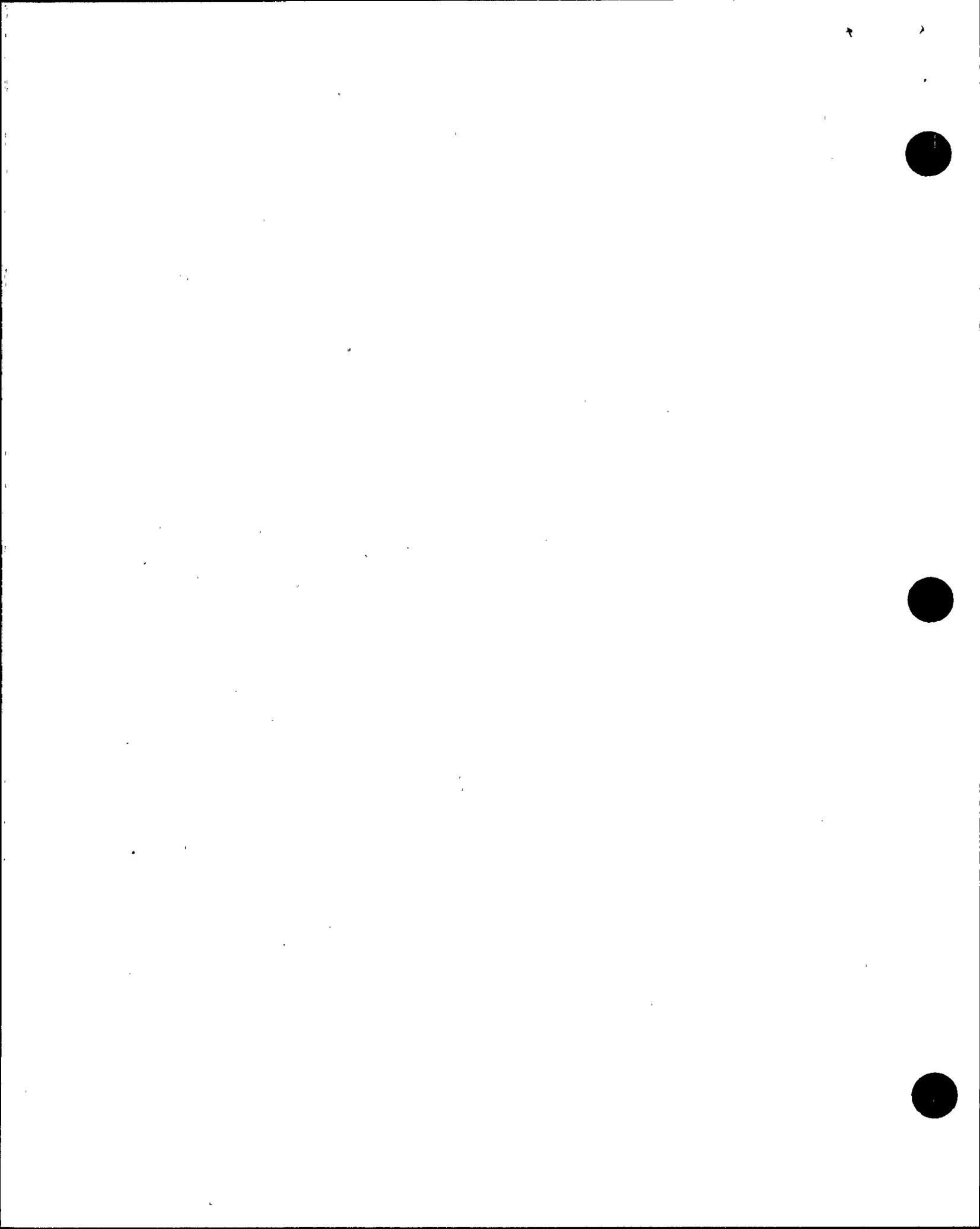
This temporary modification did not introduce an unreviewed safety question. This change is a temporary connection of non-class 1E power from a non-class 1E power source to another non-class 1E power source. This change affects no safety related equipment. Associated equipment is not Technical Specification related, thus the margin of safety is not altered and/or reduced.

3-90-NH-046 This temporary modification provided temporary non-class 1E power (480 VAC) from alternate source 3E-NHN-M0301 to load MCC 3E-NHN-M150 originally fed from 3E-NGN-L06C4.

This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Consideration has been made for safety of personnel and equipment based on ground fault protection and downstream

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TMOD Number	Description	Safety Evaluation Summary
3-90-SP-042	This temporary modification electrically determiated spray pond valves 3JSPBH50A/B to re-establish operability of the "B" train spray pond.	breaker coordination. Margin of safety is not altered or reduced. This temporary modification did not introduce an unreviewed safety question. The valves are in the spray (safe shutdown) position due to cables determiated in the valve pit. This is different from being downpowered due to the keylock in the control room, but there is no safety significance since the heat removal function is unchanged. The bypass mode is a control room elective, based on spray pond water temperature and heat load, to conserve water during times of high evaporative losses. This is not a safety condition per UFSAR 9.2 & 9.5.
3-90-SV-012	This temporary modification raised the alarm setpoint for 03KSVNYSH0008A to a value greater than 0.5 ft.-lb. to clear the locked-in alarm on Channel-8 loose parts.	This temporary modification did not introduce an unreviewed safety question. LPVMS does not perform any control function and does not interface with any safety systems or components. It is an information system only. It is not required for plant safe shutdown.
3-90-SV-017	This temporary modification replaced TMOD 3-90-SV-011 which raised the setpoint to clear the locked-in alarm on Channel-1. This TMOD eliminates the signal from reaching the alarm circuitry.	This temporary modification did not introduce an unreviewed safety question. LPVMS is non-safety related and not required for plant safe shutdown. It does not perform any control function and does not interface with any safety systems or components. It is an information system only.
3-90-SV-026	This temporary modification cleared the locked-in Control Room alarm (7C-14B) caused by Core Internal Channels 11-16 by taking the relay contacts out of the alarm circuit.	This temporary modification did not introduce an unreviewed safety question. The Core Internal Channels is an information system only. It does not perform any control function or interface with any safety systems or components. Additionally, it is not required for plant safe shutdown.
3-90-SV-030	This temporary modification replaced TMOD 3-90-SV-010 which raised the setpoint to clear the locked-in alarm on	This temporary modification did not introduce an unreviewed safety question. Loose Parts is non-safety related and is



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TMOD Number	Description	Safety Evaluation Summary
	Channel-6. This TMOD eliminates the signal from reaching the alarm circuitry.	not required for plant safe shutdown. It does not perform any control function and does not interface with any safety systems or components. This system only provides information and alarms.
3-90-SV-039	This temporary modification removed the Channel-6 vibration input to the logic card to clear the locked-in vibration alarm.	This temporary modification did not introduce an unreviewed safety question. It is implemented only when the system is inoperable, and allows other vibration alarms to alert operations in the control room vibration (channels 1-5, 7, 8). It does not impact assessment of signals by audio/electronic analyses. The Loose Parts and Vibration Monitoring System does not perform any control functions and does not interface with any safety systems or components.
3-91-CH-065	This temporary modification replaced 3JCHNPSV0865 with blind flanges on the seal injection line and drain line to the equipment drain tank due to leakage.	This temporary modification did not introduce an unreviewed safety question. The flange may leak, but the leakage is less than the failure of the valve in the open position. Complete failure of the flange is no worse than complete failure of the valve, as both require failure of all bolting material, resulting in the same hole size in the system. As the valve is no longer needed, the replacement of it with blind flanges is in the conservative direction for increased safety. The flanges have fewer failure modes than the valve in that leakage can be detected and isolated earlier.
3-91-CP-023	This temporary modification installed electrical jumpers to allow operation of the Containment Refueling Purge System during the A Train electrical outage.	This temporary modification did not introduce an unreviewed safety question. The dampers involved are non-quality related equipment. This change does not degrade below any design bases the performance of a safety system assumed to function in the accident analysis.
3-91-CP-044	This temporary modification installed electrical jumpers to allow operation of the Containment Refueling Purge System during the B Train electrical outage.	This temporary modification did not introduce an unreviewed safety question. The dampers involved are non-quality related equipment. This change does not degrade below any



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TMOD Number	Description	Safety Evaluation Summary
3-91-IA-042	This temporary modification provided a pneumatic bypass around instrument air containment isolation valve IAA-UV002 during refueling to avoid a loss of air to containment due to a loss of power to the solenoid actuator.	design bases the performance of a safety system assumed to function in the accident analysis. This temporary modification did not introduce an unreviewed safety question. This TMOD will only be in place during mode 6 activities, and the instrument air system does not have an impact on equipment important to safety. This TMOD is in compliance with Technical Specifications by maintaining one automatic isolation valve operable.
3-91-IA-050	This temporary modification used Nitrogen from bottles in place of permanent Instrument Air in the IA header supplying the Condensate Demineralizer System during the IA outage.	This temporary modification did not introduce an unreviewed safety question. Nitrogen is a designed backup for IA in other locations in the plant, thus the use of Nitrogen in place of IA has already been evaluated. The affected portion of the Condensate Demineralizer System has no safety related function and does not involve any quality related structures, components and/or systems as described in the UFSAR.
3-91-NG-003	This temporary modification provided temporary non-class 1E power (480 VAC) with control from 3ENGNL13B3 to load 3ENGNL02B3, to support outage of 3ENANS02.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Consideration has been made for safety of personnel and equipment based on ground fault protection and downstream breaker coordination. Margin of safety is not altered or reduced.
3-91-NG-009	This temporary modification provided temporary non-class 1E480VAC power from E-NGN-L01E4 to normal lighting bus E-NGN-L18 during outage of E-NAN-S02.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.

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TMOD Number	Description	Safety Evaluation Summary
3-91-NG-015	This temporary modification provided temporary 480 V AC power from 3ENGHL15E3 to the "Bry-Air" Dehumidifier unit to support dry layup of the MSRs during the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-016	This temporary modification provided temporary 480V AC power from 3ENGHL14E4 to the "Bry-Air" Dehumidifier unit to support dry layup of the MSRs during the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-020	This temporary modification provided temporary 480V AC power to switchgear 3ENGHL17 from 3ENGHL10D4 during outage of normal supply bus 3ENANS01 to support the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-030	This temporary modification provided temporary 480V AC power to supply MCC 3ENHNM13 during outage of normal supply bus 3ENANS01 to support the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-036	This temporary modification provided temporary power to the	This temporary modification did not introduce an unreviewed

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TMOD Number	Description	Safety Evaluation Summary
	polar crane disconnect switch, originally fed from 3E-NGN-L03D2 to new feed 3E-NGN-L10B3, during 3E-NAN-S01 outage.	safety question. It only affects non-class 1E electrical power. The equipment involved and the polar crane operation are not safety related, important to safety or related to safe shutdown. Consideration for personnel safety has been performed based on the ground fault protection and downstream breaker coordination. Margin of safety is not altered or reduced.
3-91-NG-037	This temporary modification provided temporary power to the Turbine Building bridge crane and monorail 10 ton hoist crane during the spring '91 outage.	This temporary modification did not introduce an unreviewed safety question. It only provides safe, reliable, non-class 1E electrical power from an alternate location and does not change the equipment's initial function or design. The equipment involved with the TMOD, the turbine bridge crane and monorail hoist, are not safety related, important to safety, or related to safe shutdown.
3-91-NG-039	This temporary modification provided temporary 480V AC power from 3ENGNL15E3 to the "Bry-Air Dehumidifier unit to support dry layup of the MSRs during the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-046	This temporary modification provided temporary non-class 1E 480 VAC power from 3E-NGN-L09D2 to 3E-LRN-M01 during the outage of 3E-NAN-S02.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NG-049	This temporary modification provided temporary non-class 1E 480 VAC power from 3ENGNL09D4 to 3ENGHL1603 during the	This temporary modification did not introduce an unreviewed safety question. This change does not affect safety related

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	3ENANS02 outage.	or safe shutdown equipment. The worst case accident would be a fault or overcurrent condition occurring on the temporary cable, which is protected by a ground fault sensor and a solid state trip device whose reliability has been established and confirmed as adequate means of cable protection.
3-91-NG-052	This temporary modification provided temporary 480V AC power to supply MCC 3ENHNM07 during outage of normal supply bus 3ENANS01 to support the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate protection using appropriate circuit breaker and cable sizing was used to ensure safety and equipment operability. Margin of safety is not altered or reduced.
3-91-NH-002	This temporary modification provided temporary non-class 1E power (480 VAC) from alternate source 3-E-NHN-M2515 to load 3-M-HAN-A02 (Access Cont Area Normal AHU Fan) originally fed from 3-E-NHN-M2602.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Consideration has been made for safety of personnel and equipment based on ground fault protection and downstream breaker coordination. Margin of safety is not altered or reduced.
3-91-NH-019	This temporary modification provided temporary 480V AC power to switchgear 3ENGL04 from MCC 3ENHNM30 using a 300 KVA diesel generator during outage of 3ENANS02 to support the U3R2 outage.	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Adequate consideration has been made to ensure personnel safety and equipment operability based on ground fault protection and breaker setpoint and coordination. Margin of safety is not altered or reduced.
3-91-NH-026	This temporary modification provided temporary power to 3-J-SSN-A01A, 3-J-RZN-C01 and 3-J-SSN-E022 from alternate source 3-E-NHN-M1022 (originally fed from 3-E-NHN-M2012) to support the Unit 3 outage.	This temporary modification did not introduce an unreviewed safety question. The alternate power source provides the required input for the equipment to perform its intended function as per original design. This modification uses the

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same breaker protection as the original design plus added protection for the temporary cable. The design basis has not been altered, and the margin of safety has not changed.

3-91-NH-028 This temporary modification provided temporary Non-Class 1E, 120 VAC power to Instrument Air Dryer H-1AN-M01A during the E-NAN-S01 bus outage. Power comes from E-NHN-D02 Bkr 52-21 and supplies the load off E-NHN-D11 Bkr 52-03.

This temporary modification did not introduce an unreviewed safety question. The compressed air system is not required for safe shutdown of the reactor, or to mitigate an accident. An alternate source of power, provided by a short run of power cable, has normal load (overcurrent) breaker protection, and will trip in the event of a conductor short circuit. It will not penetrate any fire walls or fire doors. This modification does not alter noise levels, flood design, missile protection, rupture of piping, or environmental design.

3-91-NH-029 This temporary modification provided temporary non-class 1E 480 VAC power from alternate source 3-E-NHN-M5001 to load MCC 3-E-NHN-M03, originally fed from 3E-NGN-L25C4, during the outage of 13.8KV switchgear 3-E-NAN-S01.

This temporary modification did not introduce an unreviewed safety question. This change affects no safety related equipment. It is a connection of non-class 1E power from a non-class 1E power source to another non-class 1E power source. Associated equipment is not Technical Specification related, thus the margin of safety is not altered and/or reduced. Consideration is made for safety of personnel and equipment based upon ground fault protection and breaker coordination.

3-91-NH-031 This temporary modification provided temporary 480V power to supply loads off 3ENHNM1535A from 3ENHNM7108A during outage of normal supply bus 3ENANS01.

This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only. It does not affect any safety related equipment. Adequate protection using ground fault protection and circuit breaker setpoint and coordination was used to ensure safety and equipment operability. Margin of safety is not altered or reduced.

3-91-NH-032 This temporary modification provided temporary non-class 1E

This temporary modification did not introduce an unreviewed



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THOD Number	Description	Safety Evaluation Summary
	power (480V AC) from alternate source 3-E-NHN-M2009 and M2002A to specified loads normally fed from 3-E-NHN-M1002B, M1012 and M1026.	safety question. This change affects non-class 1E power only, and does not affect any safety related equipment. Consideration has been made for safety of personnel and equipment based on ground fault protection and downstream breaker coordination. Margin of safety is not altered or reduced.
3-91-NH-047	This temporary modification provided temporary power from 3E-NHN-M2517 to M2608; M2502 to M2604; D25 52-07 to D26 52-17; and D25 52-18 to D26 52-19 to maintain operation of Containment purge equipment during outage of 3E-NAN-S02.	This temporary modification did not introduce an unreviewed safety question. The alternate power source provides the required input for the equipment to perform its intended function as per original design. This modification uses the same breaker protection as the original design plus added protection for the temporary cable. The design base is not altered, and the margin of safety is not changed.
3-91-NH-056	This temporary modification provided temporary 480 VAC power from a portable 300KVA generator to 3E-NHN-M27 (main bus) during the 3E-NAN-S01 outage.	This temporary modification did not introduce an unreviewed safety question. Safety related equipment and safe shutdown related equipment are not affected. Both the generator and fuel tank are located at least 50' from any important equipment or buildings. A dirt berm would be around the fuel storage tank to contain any potential fuel leak. The worst case scenario would be a fault or an overcurrent condition occurring on the temporary cable which is protected by means of a fused air disconnect switch, a method whose reliability has been established.
3-91-NH-057	.This temporary modification provided temporary 120V power to M-ASN-P01A/B controller from E-NHN-D10 Bkr 52-15 (originally fed from E-NHN-D15 Bkr 52-11) during the outage of normal supply bus 3ENANS01.	This temporary modification did not introduce an unreviewed safety question. It affects the non-class 1E power only. It does not affect any safety related equipment, therefore consequences of a malfunction of equipment important to safety is not increased. The equipment affected by this change is not Technical Specification related, thus the margin of safety is not altered or reduced.

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TMOD Number	Description	Safety Evaluation Summary
3-91-QB-007	This temporary modification provided temporary Non-Class 1E 480 VAC power to E-QBN-D91 from E-NGN-L0383 while PGA-L3503 is out of service to support the outage of 3E-PBA-S03 supply bus.	This temporary modification did not introduce an unreviewed safety question. The change only affects Non-Class 1E electrical power feeding non-safety related equipment. Consideration has been made for safety of personnel and equipment based upon ground fault protection and downstream breaker coordination. Associated equipment is not Technical Specification related, thus the margin of safety is not altered or reduced.
3-91-QB-008	This temporary modification provided temporary Non-Class 1E 480 VAC power from a "construction source" to Class 1E equipment E-QBA-V01, which feeds the essential lighting voltage regulator, during the outage of the normal supply source E-PBA-S03.	This temporary modification did not introduce an unreviewed safety question. Operability of safety systems is maintained as per Technical Specification 3.8.1.2. This modification isolates the equipment from the de-energized bus while breaker ground fault protection is maintained, thus the malfunction of equipment important to safety is not increased. This change allows equipment that would normally be out of service to be functional, thus decreasing the possibility of an accident of a different type.
3-91-QB-018	This temporary modification provided temporary power to 3E-QBB-V02, voltage regulator for essential lighting, from a welded outlet in the same room powered from 3E-NHN-M0302 during the Spring 1991 U3 outage.	This temporary modification did not introduce an unreviewed safety question. Essential lighting is maintained for monitoring control room parameters. Consideration has been made for the safety of personnel and equipment because the provided source of power has ground fault protection and normal load breaker protection. The alternate source of power is a short run and will not penetrate a fire wall or fire door. The "bus leads" to the breaker are electrically isolated, thus reducing the probability of a malfunction of equipment important to safety.
3-91-QB-022	This temporary modification provided temporary non-class power from E-NGN-L0583 to E-QBN-D90 to stabilize and support plant conditions during the outage of normal supply bus	This temporary modification did not introduce an unreviewed safety question. This change affects non-class 1E power only, and does not affect any safety related equipment.

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TMOD Number	Description	Safety Evaluation Summary
	E-PBA-S04.	Consideration has been made for safety of personnel and equipment based on ground fault protection and downstream breaker coordination. Margin of safety is not altered or reduced.
3-91-00-010	This temporary modification resets UPS 3E-QDN-N02 input low voltage relay setpoint from 101VDC to 98VDC to compensate for the voltage drop due to a long cable.	This temporary modification did not introduce an unreviewed safety question. This TMOD involves entirely non-safety related equipment, and aids in operating the equipment safely. It does not revise the design of any operational system, and therefore does not create the possibility of an accident different than previously evaluated in the UFSAR.
3-91-SF-060	This temporary modification changed the setpoint in the FWCS Electronic Modules to the "K" bias of the F328 Summer to compensate for a gain change in F328 (done by SMOD 3SM-SF-010).	This temporary modification did not introduce an unreviewed safety question. The FWCS is assumed to function in one of four modes in the Chapter 15 analyses: Reactor Trip Override (RTO), High Level Override (HLO), Inoperable and Normal Operations. The RTO and HLO functions are unaffected by this change. If the system is Inoperable, any change would have no consequence. For Normal Operations, the FWCS is considered not required for plant safety, and any change to the FWCS would also be considered as not impacting plant safety and therefore of no consequence.
3-91-SK-014	This temporary modification relocated the access control hardware at a vital area access control point during a refueling outage to reduce radiation exposure to security personnel during the outage.	This temporary modification did not introduce an unreviewed safety question. The temporarily relocated access control hardware performs an identical function to that performed during normal operation. Hence, there is no change in plant safety.
3-91-ZC-038	This temporary modification provided temporary accessible 480 VAC power for construction and maintenance activities at and above the Polar Crane.	This temporary modification did not introduce an unreviewed safety question. The TMOD installation, fused disconnect E-NGN-W02, load center E-NGN-L03, and all loads fed are strictly Non-1E power. None are related to safe shutdown or important to safety equipment. The fused air disconnect

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TMOD Number	Description	Safety Evaluation Summary
3-91-ZC-058	This temporary modification replaced the main circuit breaker in 3M-ZCN-G01 Polar Crane control panel (225A 3P 600VAC) with a 250A 3P 600VAC breaker due to an overheated electrical connection inside the breaker.	provides an instantaneous trip upon a fault downstream of the TMOD installation. The fused disconnect E-NGN-W02 provides an instantaneous trip upstream of the installation.
A-90-SK-001	This temporary modification grounded specific contacts on selected perimeter intrusion detection equipment in an effort to reduce noise induced nuisance alarms.	This temporary modification did not introduce an unreviewed safety question. It only affects the polar crane which is Non-Class 1E. The polar crane is not a part of the "Engineered Safety Features" as described in UFSAR Chapter 6, and it does not affect equipment required to mitigate accidents.
A-90-SK-004	This temporary modification grounded specific contacts on selected perimeter intrusion detection equipment in an effort to reduce noise induced nuisance alarms.	This temporary modification did not introduce an unreviewed safety question. This temporary change does not in any way reduce the ability of the perimeter intrusion detection system to sense intrusions and generate alarms. The change is intended to only reduce invalid alarms and, thus, improve the effectiveness of the system.
A-90-SK-004	This temporary modification replaced selected security surveillance equipment with like equipment from other manufacturers to evaluate suitability as an eventual replacement.	This temporary modification did not introduce an unreviewed safety question. This temporary change did not reduce in any way the ability of the security surveillance equipment to perform its design function, as the replacement equipment met the same performance requirements established for the original equipment. The intent of the evaluation was to determine long-term suitability.
A-91-SK-001	This temporary modification installed enhanced circuitry in association with the security computer to improve data signal communication between the computer and certain alarm points.	This temporary modification did not introduce an unreviewed safety question. This temporary change did not reduce the capability of the security computer to perform its design function. The change enhanced signal communication from security alarm points to the security computers, thus improving plant security.

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SHOD Number	Description	Safety Evaluation Summary
1,2,3SM-GA-002	This site modification added a filter, the associated Pressure Differential Indicator (PDI) and an isolation valve in the nitrogen supply header (high pressure), which limits the particulates downstream to less than or equal to 3 micromin size. This change is required to determine system leakage and to maintain cleanliness.	This site modification did not introduce an unreviewed safety question. The affected portion of the compressed gas storage system is non-safety related and not addressed in the Technical Specifications. This modification does not affect the nitrogen compressed gas system's capability to provide nitrogen to the ADV accumulators. The addition of filtration helps reduce probability of a malfunction and is a system enhancement which does not affect the failure analysis in UFSAR Sections 10.3.2.2.4, 7.4.1.1.7 and 9.3.6 for the ADVs and compressed gas storage system.
1,2,3SM-QM-004	This site modification added a switch, relay and indicating light to solid radwaste heat trace panels 13-E-QMN-C05A/B, which will allow alarm points QMYS11/12 to be cleared while the two affected panels are secured.	This site modification did not introduce an unreviewed safety question. All components added by this change are similar to those already installed and used in a functionally equivalent location. The heat trace system is not an important to safety system, and a failure of the system could not cause a malfunction of the solid radwaste system in an important to safety manner. The trace is only to prevent precipitation of solids from solution in unwanted areas.
1,2,3SM-RH-016	This site modification revised alarm setpoints on recorder J-RHN-TJR-002.	This site modification did not introduce an unreviewed safety question. The basic function of the recorder as a monitor-only device is unchanged. It could fail, and the PPS/ESFAS would still function. The recorder is non-safety related. No physical changes are made, and the setpoint changes are conservative.
1,2,3SM-SB-016	This site modification installed Revision 05 Core Protection Calculator (CPC)/Control Element Assembly Calculator (CEAC) software to allow verifying correct installation of Reload Data Block (RDB) following functional testing and/or software maintenance.	This site modification did not introduce an unreviewed safety question. The CPC/CEAC system software with approved CPC addressable constants is already part of the design described in the UFSAR. Revision 05 software does not involve a change in plant hardware; sensor inputs and



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SMOD Number	Description	Safety Evaluation Summary
1,2,3SM-SK-030	This site modification replaced existing portions of the perimetered intrusion detection system with a system of a different design.	contact outputs are the same. No application programs are modified. This site modification did not introduce an unreviewed safety question. The replacement perimeter intrusion detection system performs the same function as the previously installed system; therefore, the change does not decrease plant safety.
1,2,3SM-SK-043	This site modification replaced an existing turbine deck grating cover with a solid cover, and added locks and alarms to a vital equipment access point (security barrier). The change enhances the security of the subject vital equipment and system.	This site modification did not introduce an unreviewed safety question. This change enhances the security barrier associated with the subject vital equipment and associated system, and improves plant safety.
1,2,3SM-SQ-016	This site modification replaced an obsolete disk drive with an available model and installed communications diagnostic software.	This site modification did not introduce an unreviewed safety question. This change does not make any equipment additions or deletions, but is a substitution. An increase in probability or consequences of a malfunction of important to safety equipment is not increased. Since the RMS mini-computer is not part of any basis for any Technical Specifications, the margin of safety is unaffected.
1,2,3SM-SQ-017	This site modification replaced the RMS Control Room printer with a non-obsolete model and added a new printer and buffer to the RP office CRT to provide screen dump (copy) capabilities for that device.	This site modification did not introduce an unreviewed safety question. This change involves equipment at the ends of the respective loops and only processes the information. Neither sends information back to the mini-computer; thus, probability and consequences of a malfunction are not increased.
1,2,3SM-SQ-032	This site modification installed snubbers, revised the installation of Tavis transmitters, installed filtering capacitors, and applied Radiation Monitoring System (RMS) software flow averaging to resolve flow fluctuations and	This site modification did not introduce an unreviewed safety question. The changes are enhancements to the RMS which do not alter the design function of the monitors as described in UFSAR Section 11.5.4. Radiological

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SMOD Number	Description	Safety Evaluation Summary
	spurious alarms in effluent radiation monitors.	consequences of accidents are not affected. Modification to the flow algorithm results in the calculation of release to the environment in the conservative direction. There are no changes to any radiation level set points and no reduction in the margin of safety.
1,2SM-DG-016	This site modification installed structural braces for starting air compressor "A". This addition adds increased support and rigidity to the existing Q-class compressor base and reduces vibration levels.	This site modification did not introduce an unreviewed safety question. The supports add structural integrity to the seismic category I base. The braces do not affect the function of the starting air system, consequences any component failure would have on the system, or operability of any safety related, important to safety or safe shutdown systems. Margin of safety remains the same, as the diesel generator starts and loads as previously assumed in the Technical Specifications.
1,2SM-RC-002	This site modification added flanges to spray valve/bypass valve packing leak-off lines to facilitate easier valve bonnet removal in high radiation areas.	This site modification did not introduce an unreviewed safety question. The RCS pressure boundary is not adversely affected. A large leakage to containment would have to assume the unlikely scenario of simultaneous complete packing failure and failed flanges and/or flange gaskets; even this worst case is bounded by existing UFSAR analyses.
1,3SM-QM-011	This site modification installed heat tracing for radiation monitors RU141/142 sample lines located in the Turbine Building.	This site modification did not introduce an unreviewed safety question. This addition actually decreases chances of failure of the radiation monitoring equipment which is important to safety. Though the heat tracing system is non-quality related, it does ensure adequate reliability and availability based on performance specifications and the redundancy aspect of the heater circuit. The primary heat trace panel comes from the same class 1E power supply feeding the radiation monitors. All components being added are similar to those already installed per material specifications 13-EH-052.

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SMOD Number	Description	Safety Evaluation Summary
1,3SM-SC-010	This site modification changed the existing setpoint of the condensate demineralized resin transfer water supply pressure controller to make the resin transfer operation more effective.	This site modification did not introduce an unreviewed safety question. This system has no safety design basis, and no safety systems are being modified. System performance and operability are improved.
1,3SM-SF-005	This site modification lowered the feedwater control room settings for the feedwater pump speed from 4150 RPM to 3800 RPM to improve low power performance.	This site modification did not introduce an unreviewed safety question. This setpoint change enhances the system's performance without impacting the system's design specifications. The FWCS is not considered in any action involved with accident analyses. It provides a control function not associated with plant safety systems.
1,3SM-SG-011	This site modification redesigned pipe supports (13-SG-050-H-015, 13-SG-041-H-003, 13-ED-390-H-005 and 13-SG-050-H-003) to withstand water hammering during a turbine trip.	This site modification did not introduce an unreviewed safety question. The rework of the pipe supports has no effect on any safety related, safe shutdown or important to safety systems. It increases the degree of protection. Therefore, the margin of safety is not reduced.
1,3SM-SK-010	This site modification added a time delay relay to preclude undetected access through a vital area door.	This site modification did not introduce an unreviewed safety question. This change precludes undetected access into a vital area through a vital area door, and hence, improves plant safety.
1SM-AR-002	This site modification added a shaft guard to the main condenser exhaust filter fan 1M-ARN-A02.	This site modification did not introduce an unreviewed safety question. It does not affect the operation or performance of exhaust filtration unit M-ARN-F01. It has no safety function and does not create probability or consequences of a malfunction of equipment important to safety.
1SM-DG-023	This site modification installed a new support for the drain traps between the two cooling coils on each dryer to allow installation of new replacement traps.	This site modification did not introduce an unreviewed safety question. It allows for a design equivalent change for drain trap model from Van-Air SAC-01 to a newer version



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SHOD Number	Description	Safety Evaluation Summary
1SM-FH-006	This site modification relocated cam TR1 such that the spent fuel handling machine trolley travel is halted 5' from the south gate of the cask transfer pit.	of SAC-01 design, renamed SAC 100, which is equivalent or better with regard to temperature, operating pressure and flow. This change does not alter the design function of the Diesel Generator Air Dryer Units. Therefore, consequences of an accident previously evaluated in the UFSAR are not increased.
1SM-FP-002	This site modification provided permanent 6" and 4" underground fire main loop branches to provide fire suppression water for the outage entry/exit facilities and other yard facilities requiring fire protection sprinkler systems.	This site modification did not introduce an unreviewed safety question. The additional distance ensures that acceptable dose rates are realized outside of the cask transfer pit when spent fuel is being handled in the pit. This modification does not alter the design criteria of Cessar Section 9 or the failure mode analysis.
1SM-LR-001	This site modification upgraded the rupture disc of the liquid radwaste evaporator surface condenser to prevent it from failing as frequently.	This site modification did not introduce an unreviewed safety question. It does not adversely affect the ability of quality related structures, components and systems to perform safety related or important to safety functions, since it only adds a non-quality related branch with the appropriate isolation valve to the existing quality related fire main in accordance with project design criteria.
1SM-QB-002	This site modification changed circuit feed from normal source D08E-1&3 to essential source D79-04.	This site modification did not introduce an unreviewed safety question. This action has no effect, directly or indirectly, on any equipment important to safety. The LRS evaporator and surface condenser are not safety related, and there is no safety related equipment in the Radwaste Building. Release of radioactivity type accidents are bounded by the worst case accidents which are reviewed in UFSAR Section 15.7.
		This site modification did not introduce an unreviewed safety question. The change decreases the potential of personal injury in the event of loss of normal power. No



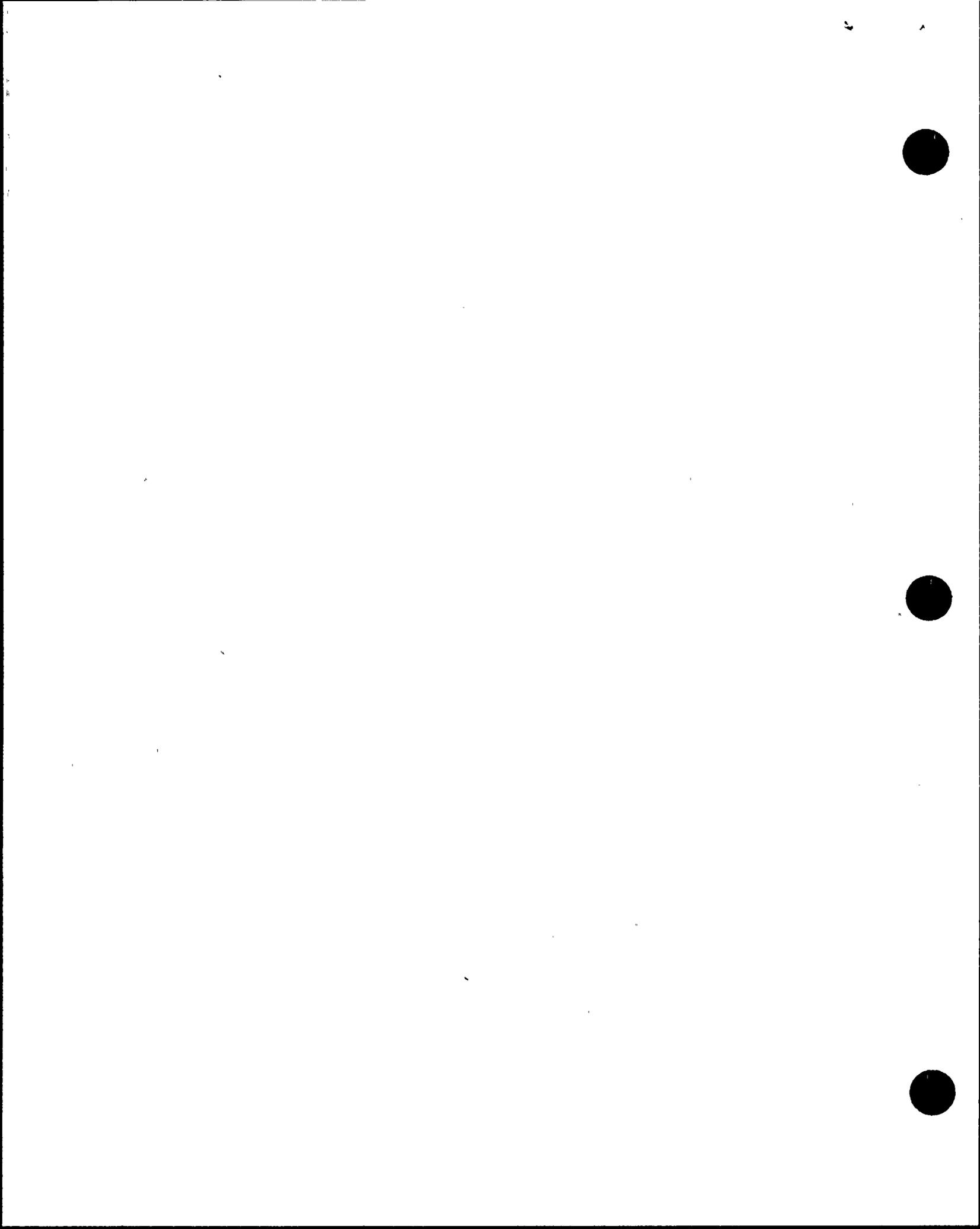
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SMOD Number	Description	Safety Evaluation Summary
1SM-QD-003	This site modification relocated emergency light #ZAL-72D-03-120-06 from behind piping in a high radiation area to a more accessible location, for easier periodic maintenance.	equipment is affected as this is a change to circuit feed only and located in an area where no equipment is situated. The change decreases challenges to nuclear safety, as access route is a part of Appendix R safe shutdown route.
1SM-RJ-021	This site modification changed the CMC CEA position calculation constants due to inconsistencies between the report and CEAC Ops Modules.	This site modification did not introduce an unreviewed safety question. The equipment involved is non-quality related and does not in any way impact quality related equipment. This light still provides illumination to the same area while providing more direct illumination to walkways and valve operators in the area.
1SM-RK-002	This site modification installed time delay relays in the local Radwaste alarm panels so that the only alarms that will annunciate in the Main Control Room are those that have not been acknowledged for five minutes.	This site modification did not introduce an unreviewed safety question. Consequences of an accident evaluated in the UFSAR are not affected by changes in the plant monitoring system (PHS), which is a non-safety related system. The PHS is not an important to safety system and does not increase probability of any important to safety equipment malfunction.
1SM-RH-015	This site modification revised alarm setpoints on Control Room Panel B07 multi-point recorders for RCP, Main Turbine and Feedwater Pumps, to eliminate nuisance alarms and provide time for the operator to react to the alarm prior to tripping the RCPs.	This site modification did not introduce an unreviewed safety question. The addition does not affect any equipment important to safety. The loss of this alarm does not change or affect the consequences of an accident as evaluated in the UFSAR. The margin of safety is not affected, because this alarm circuit is not a consideration in the basis for the Technical Specifications.
		This site modification did not introduce an unreviewed safety question. The recorders are non-safety related, and their basic function as a monitor-only device is unchanged. The recorders and PMC could both fail, and the PPS/ESFAS would still function. No physical (component) changes are made, and the setpoint changes are conservative in nature,



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1SM-SG-017	This site modification installed a pressure tap on the bonnet of the Atmospheric Dump Valves (ADV) to allow for periodic inspection and surveillance of the ADVs.	so probability of an accident previously evaluated is not increased. This site modification did not introduce an unreviewed safety question. Installation of the pressure taps does not affect the operation of the ADVs and does not prevent the ADVs from performing their intended safety function. This action does not have an impact on any other equipment important to safety. The postulated failure of the ADV pressure taps is bounded by the accident scenarios currently evaluated in the UFSAR.
1SM-SI-011	This site modification added a 3/8" stainless steel tubing to vent caps on the HPSI and SDC vent lines, which extends the vent line to a more accessible position and reduces the possibility of spreading contamination during the venting process.	This site modification did not introduce an unreviewed safety question. It makes changes to the piping downstream of the block valve, which is outside the systems pressure boundary. The extra weight added to the line is within acceptable limits for the line per calculation 13-MC-SI-523. The block valve is the class break from ASME Section III to ANSI B31.1.
1SM-SK-034	This site modification strengthened the vital area barrier around the perimeter of a vital area door to reduce the potential for access through the vital area barrier.	This site modification did not introduce an unreviewed safety question. This change further reduces the potential for undetected access into a vital area through a vital area barrier, thus improving plant safety.
1SM-SP-003	This site modification replaced existing 0-100 PSI gauges with 30"-0-100 PSI gauges for SPNP10095&6, as the latter are capable of handling vacuum conditions created when the spray pond sump pumps stop running (which has caused damage to the existing gauges).	This site modification did not introduce an unreviewed safety question. The backwash sump pumps are not quality related. The failure of a backwash sump pump pressure gauge in no way compromises the ability of the spray ponds to perform their safety function. There is no impact on water quantity, quality or system performance.
1SM-SQ-012	This site modification added a moisture trap, deleted RNO2 particulate-iodine train, and replaced RNO1 cartridge	This site modification did not introduce an unreviewed safety question. It does not change the intent of the



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SMOD Number	Description	Safety Evaluation Summary
	assembly with a more reliable assembly, to prevent equipment damage and improve sampling capability (thereby reducing the number of special reports and LERs to the NRC).	design. No challenges are being made to nuclear safety. The mechanisms for failure are the same as those for the original design. Therefore, the probability of consequences of a malfunction of equipment is reduced because of the improved design.
1SM-SR-005	This site modification replaced the mechanical shaft seal on resin transfer/dewatering pump N-SRN-P01 in the solid radwaste system, as the original seal was of improper design which resulted in excessive water usage and unacceptable pump operation.	This site modification did not introduce an unreviewed safety question. It does not alter the system or make any procedural change which would be in conflict with the UFSAR. The accident analyses of UFSAR Chapter 6 & 15 make no assumptions concerning the SR system. There is no deviation from RG 1.143, and the system remains functionally identical.
1SM-ZJ-004	This site modification removed the chain link fence around the scaffold lock-up area and replaced it with a grating barrier to comply with plant security requirements.	This site modification did not introduce an unreviewed safety question. The reworking of a barrier fence outside the control building has no effect on the operability of any safety related, important to safety, or safe shutdown systems. Hence, probability of an accident previously evaluated in the UFSAR is not increased.
1SM-ZJ-007	This site modification removed the existing roof overhang at the south entrance of corridor building entry lobby area and installed new siding, girts and a parapet to match the existing building exterior.	This site modification did not introduce an unreviewed safety question. The operation and maintenance of the building is not changed. All modifications conform to existing requirements, and appropriate design criteria is satisfied. Safety margins established for Technical Specifications are not affected.
1SM-ZH-001	This site modification notched the existing beam W12x40 and made the existing handrail removable at elevation 140'-0" of the MSSS Building to eliminate interference during removal of Main Steam Isolation Valve UV-181.	This site modification did not introduce an unreviewed safety question. It has no effect on the operability of safety related, important to safety, or safe shutdown systems. The notched beam and removable handrail are still acceptable for the design loading. The notched beam flanges do not affect the structural stability of the existing beam;

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SMOD Number	Description	Safety Evaluation Summary
1SM-ZR-001	This site modification removed old/unused radwaste trash compactor foundation and oil retention berm in order to provide space in the Radwaste Building truck bay for placement of temporary demineralizer beds and/or a reverse osmosis unit.	its revised stresses are still well within the allowables. This site modification did not introduce an unreviewed safety question. The lack of this foundation and berm cannot cause or have any effect on an accident. None of the UFSAR Chapter 15 analyses involve SR system assumptions.
1SM-ZT-007	This site modification installed a safety cage on the ladder that provides access to the bridge crane in the Turbine Building to provide additional protection to the maintenance personnel using the crane.	This site modification did not introduce an unreviewed safety question. The added safety cage has no effect on the operability of any safety related, important to safety, or safe shutdown systems. The addition of a safety cage to the existing ladder increases the degree of protection; therefore, margin of safety is not reduced.
2,3SM-EW-003	This site modification replaced the stuffing box packing on pumps EWA-P01 and EWB-P01 (Essential Cooling Water Pumps) with a mechanical seal in order to minimize leakage.	This site modification did not introduce an unreviewed safety question. The implementation of mechanical seals does not adversely affect the operation of the Essential Cooling Water Pumps; therefore, probability of an accident previously evaluated in UFSAR is not increased. No change to the Technical Specifications is required since it addresses pump availability which is not impacted by this modification. Since the mechanical seals will perform the same function as the stuffing box packing, possibility of an accident or malfunctioning of a different type than any previously evaluated in the UFSAR is not created.
2,3SM-SG-027	This site modification adjusted loss of air pressure switches SGNPSL-1113A and -1123A to trip at 28 PSI (vs. 35 PSI) to allow the switches to reset.	This site modification did not introduce an unreviewed safety question. This change does not impact any design basis considerations. The components provide a control function not associated with plant safety. In a worst case scenario, adequate plant safety is ensured by the safety grade auxiliary feedwater system which does not use these valves.



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SMOD Number	Description	Safety Evaluation Summary
2,3SM-SG-030	This site modification installed a new Long Path Recirculation Bypass Line #SG-N-508-DBDB-2" and new valve #SG-N-VA31 to allow the gradual initiation of feedwater flow and controlled cooldown of the High Pressure (HP) feedwater heater trains during long path recirculation to the condenser.	This site modification did not introduce an unreviewed safety question. Low flow control of long path recirculation is required to avoid thermal shock and water hammer to the HP heater trains when elevated temperatures are present. The long path recirculation line is isolated and not required for the safe operation or safe shutdown of the plant.
2,3SM-SQ-022	This site modification removed air flow switches S101 and S102 from XJSQNRU0006 and XJSQNRU0014 to curtail the numerous auxiliary equipment failures brought in by these switches.	This site modification did not introduce an unreviewed safety question. Probability and consequences of an accident previously evaluated or an equipment malfunction important to safety is not increased at all by the simple removal of these switches.
2,3SM-SV-003	This site modification changed the size of the proximity probe sensor bracket, as it had a resonant frequency which was excited by the vane passing frequency.	This site modification did not introduce an unreviewed safety question. The system is not safety related. This modification uses the same type of material and assembly methods as referenced on the design documents, and it does not change the operation of the Reactor Coolant Pump or its automatic vibration monitoring system.
2,3SM-XM-001	This site modification added pipe supports to susceptible RC & SI vent and drain lines, and modified existing RCP seal drain line supports.	This site modification did not introduce an unreviewed safety question. All the supports being added or modified are inside Containment (not near Auxiliary Building ESF pumps or equipment), and are not near any in-Containment essential equipment or instruments. This addition and modification have no effect on the UFSAR accident analyses; in fact, possibility of a small break LOCA is decreased.
2,3SM-ZC-012	This site modification added permanent lifting devices inside the Containment Building to aid in the maintenance of valves JRCEPV100E/F.	This site modification did not introduce an unreviewed safety question. This change does not affect any mechanical, electrical, or instrument and controls system, and it does not interact with any existing operating system.

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2SM-CO-001	This site modification revised and relocated supports on the electrohydraulic piping to increase flexibility of the line to account for the large thermal movements of the Main Turbine Control Valves.	This structural installation is designed and installed in accordance with seismic category IX requirements and the UFSAR Section 3.7. This site modification did not introduce an unreviewed safety question. Reconfiguration and relocation of ETS, FAS and FCD hydraulic line supports do not increase probability or consequences of an accident previously evaluated. The changes prevent further hanger failure and possible pipe overstress to these lines which supply/drain hydraulic fluid to/from the Main Turbine Control Valves. Failure to modulate the Turbine Control Valves (denoted as a single failure in Chapter 15) is not affected. Safety related equipment is not affected.
2SM-CP-002	This site modification lowered setpoints to PDSL/PDSH22 until PCR 86-13-CP-004 is implemented, to eliminate nuisance low D/P alarms to the control room.	This site modification did not introduce an unreviewed safety question. This system is not designed or required to operate during a design basis accident. HVAC equipment and ductwork is designed to retain structural integrity, but not required to function during and after a safe shutdown. Only the penetrations are considered for Seismic Category I for Containment Isolation capability.
2SM-CP-004	This site modification changed the setpoint of the differential pressure switches (J-CPN-PDSL-22 & J-CPN-PDSH-22) for Containment Purge exhaust AFU filter to eliminate nuisance alarms.	This site modification did not introduce an unreviewed safety question. The switches are non-safety related, and the design change does not modify the system's original design requirements or affect the operability of the safety related system. This change only affects the exhaust filter for power exhaust containment purge system. Additionally, the setpoint settings are within the allowable design criteria for PVNGS Design Criteria for Containment Purge System, Rev. 5.
2SM-DG-014	This site modification restored overspeed trip switches	This site modification did not introduce an unreviewed



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	33E01 and 33E02 to trip DG electrically on engine overspeed. (The switches were jumpered out due to qualification problems which have been resolved.)	safety question. The overspeed trip function remains the same. The DG will mechanically, electrically and pneumatically trip in the Emergency Mode as originally designed. The redundant DG remains in service.
2SM-DG-022	This site modification raised the alarm setpoint of the jacket water low temperature alarm and the lube oil low temperature alarm from 100 F to 115 F. Being closer to the temperature setpoint (120 to 135) of the respective system heater controls, this change allows for earlier warning of a system malfunction.	This site modification did not introduce an unreviewed safety question. Raising the alarm setpoint simply provides warning of an abnormal temperature at an earlier time than was previously the case. It also enhances engine starting and reduces unnecessary wear caused by fast cold starts. This conservative change does not affect the Technical Specifications or the UFSAR.
2SM-FH-011	This site modification lifted and relanded the leads in the dual setpoint module of the load cell for the 10-ton Fuel Building crane, as the leads were "crossed" so the load setpoints engaged in the wrong mode of crane operation (fuel mode vs. container mode).	This site modification did not introduce an unreviewed safety question. This change ensures that the interlocks and setpoints of the spent fuel pool/new fuel handling crane operate in accordance with UFSAR Sections 9.1.1.3.1, 9.1.2.3, and 9.1.4.1.2. Only one fuel bundle can/will be handled at a time. The design of the crane is such that it will not fall into the new fuel handling area. The new fuel racks and spent fuel storage racks are designed to provide adequate mechanical separation of fuel assemblies under postulated accident conditions.
2SM-HC-002	This site modification relocated JHCNPDSL200A&B high pressure ports to downstream MHCHM04A&B to remedy MSSS cooling supply dampers failing closed and isolating ventilation.	This site modification did not introduce an unreviewed safety question. MSSS ventilation is not addressed in the bases of any Technical Specifications and provides no safety related function. This change is consistent with seismic category IX construction to preclude failure of safety related equipment.
2SM-LR-003	This site modification installed connections for the hook-up of temporary charcoal beds in the distillate discharge line between the LRS evaporator and ion exchangers.	This site modification did not introduce an unreviewed safety question. This change is constructed to ANSI B31.1 standards to ensure pressure boundary integrity. Any



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SMOD Number	Description	Safety Evaluation Summary
2SM-PB-001	This site modification physically relocated the bus duct interior and exterior temperature sensors to a location more in line with the original design.	leakage which may result from the charcoal vessel connections would be directed to the floor drains for reprocessing by the LR system; the low temperature would preclude any significant airborne contamination. This site modification did not introduce an unreviewed safety question. Accidents, malfunctions, experiments, tests and procedures as described in the UFSAR are not altered. No changes are made to the Technical Specifications or margin of safety, and probability or consequences of a malfunction of important to safety equipment is not altered.
2SM-QF-005	This site modification changed the Unit 2 ENS system from an Auxiliary Package dependent on the Unit 1 package to an independent Main Package.	This site modification did not introduce an unreviewed safety question. This modification is to meet NRC requirements. The ENS system is a non-safety telephone network which does not affect the ability of the plant to shut down. The system is not a class-1F system, nor does it interact with class-1F systems.
2SM-RC-013	This site modification changed RCP seal sensing lines from socket to butt weld construction to allow increased flexibility, reduce mass, and reduce the applied stress concentrations.	This site modification did not introduce an unreviewed safety question. Piping diameter is not increased, and a LOCA scenario is not increased in magnitude. Probability of a malfunction of equipment important to safety is actually decreased due to the ability of the newer piping configuration incorporating butt welds to take the natural pump induced vibrations. Margin of safety is not affected.
2SM-RC-014	This site modification removed snubber 13-RC-081-H-00V from line RC-H-081-CCBA-1", which is in a difficult location to inspect and was found removable by engineering analysis.	This site modification did not introduce an unreviewed safety question. It does not have any effect on nuclear safety or the margin of safety for operations. All the supports in the area of influence maintain their structural integrity, and the associated nozzle loads are within the allowables specified by the equipment vendor. The piping,



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SMOD Number	Description	Safety Evaluation Summary
2SM-SC-011	This site modification changed an existing Duriron equipment drain to a Duriron floor drain, added concrete retention curbs within the existing acid/caustic retention area, and filled the acid day tank skid with 5-star grout.	pipe supports and equipment meet the requirements of the code, the design criteria and the UFSAR. This site modification did not introduce an unreviewed safety question. It in no way affects the function and/or operation of the condensate clean-up system, which has no safety function. It does not involve or affect any quality related structures, components and/or systems. The changes are performed in accordance with APS specifications and the manufacturer's instructions.
2SM-SF-006	This site modification increased the Feedwater Control System (FWCS) low steam generator alarm from 0% to 10% of the narrow range level, to provide alarm annunciated indication to the operators for unexpected feedwater sooner than presently available.	This site modification did not introduce an unreviewed safety question. This setpoint change enhances the system's performance without impacting the system's design specifications. It does not impact the FWCS design bases, and it is not considered in any action involved with accident analysis. The FWCS provides a control function not associated with plant safety systems.
2SM-SG-025	This site modification rerouted the ADV accumulator supply line in order to install two check valves and a test tap, and eliminate the bi-directional flow that the accumulator isolation valve sees. This modification reduces the required actions to manually fill the accumulators and deletes the requirement of the area operators to torque the manual isolation valves closed after each fill.	This site modification did not introduce an unreviewed safety question. This change does not affect the operation of the ADVs and does not prevent them from performing their intended safety function. There are no changes being made to the process or control function, and operation of the valves is not changed. The stuck full open or closed scenarios are the worst case malfunction of the ADVs; probability of a different type of malfunction than already evaluated in UFSAR Sections 10 and 15 is not created.
2SM-SG-038	This site modification lengthened the relay setting from six to ten seconds for the delay from the initial steam driven auxiliary feedwater pump start sequence until the main steam supply valve for 2PAFAP01 begins to open.	This site modification did not introduce an unreviewed safety question. It does not change the design of any initiating systems for previously evaluated accidents. The safety function of the pump is unchanged. This is a support system which is not in operation or even pressurized during



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2SM-SI-005

This site modification revised the safety injection tank narrow range hi-hi and lo-lo level alarms setpoints to comply with Technical Specification limits, and also incorporated revised loop errors in the hi-hi/lo-lo alarm loops to help the operators take action before the level reaches the Technical Specification limits.

plant operation. Loss of condenser vacuum states that the pump start time for the PVNGS turbine driven auxiliary feed pump is 29 seconds. This change adds four seconds to the existing time of 9-10 seconds, which is well under the maximum time of 29 seconds.

This site modification did not introduce an unreviewed safety question. It does not involve any hardware changes, and the system design is not affected. The switches will do the same function as before, only trip at a different value. The setpoint changes do not [negatively] impact any safety or non-safety operation of the plant, but rather improve it.

2SM-SK-031

This site modification replaced an existing portion of the perimeter intrusion detection system with a system of a different design.

This site modification did not introduce an unreviewed safety question. The replacement perimeter intrusion detection system performs the same function as the previously installed system; therefore, the change does not decrease plant safety.

2SM-SP-008

This site modification changed the spray pond high level alarm setpoint from 14'-2.4" to 14'-8", to eliminate a nuisance alarm caused by setpoint tolerance overlap.

This site modification did not introduce an unreviewed safety question. The blowdown weir in the side of the pond wall permits overflow, and the alarm lets operations know if the weir is plugged. The safety analyses (UFSAR 9.2.5) is principally based on having a minimum water level for heat removal with two redundant trains, should one fail. An increase in water level is in the conservative direction and below the 15'-6" top of the pond wall.

2SM-SQ-025

This site modification added additional software to the RMS mini-computer to allow it to perform hourly system status printouts, as well as increase the mini-computer information accessing time.

This site modification did not introduce an unreviewed safety question. The probability and consequences of a previously evaluated UFSAR accident are not increased. Also, the probability and consequences of an equipment malfunction important to safety are not increased. The RMS mini-computer is not part of the Technical Specifications.



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SMOD Number	Description	Safety Evaluation Summary
2SM-SQ-028	This site modification removed the hygrometer from Containment Atmosphere Radiation Monitor RU-1.	This site modification did not introduce an unreviewed safety question. The design of the SMOD does not affect any of the circuits required for the monitor to perform its important to safety function of detecting radiation and providing an output alarm at a high level. There is no effect on the margin of safety.
2SM-ZC-002	This site modification provided a vent in the grease caps of containment tendons to allow a method of removing air from the cap during tendon regreasing.	This site modification did not introduce an unreviewed safety question. This change does not have any effect on the function of the containment tendons, and the integrity of the containment is maintained. This change has no effect on systems, subsystems or equipment evaluated in the UFSAR Chapter 3.8.1.1.2.
2SM-ZC-008	This site modification added safety cages to the ladders that provide access to the equipment hatch in the Containment Building.	This site modification did not introduce an unreviewed safety question. The added safety cages have no effect on the operability of any safety related, safe shutdown or important to safety equipment, since the cage is installed as class R-9. The additions increase the degree of protection; therefore, margin of safety is not reduced.
2SM-ZR-003	This site modification removed a block out of the top of the radwaste high level storage bay south wall to create an access area to move radwaste containers into and out of the high level bay.	This site modification did not introduce an unreviewed safety question. This change is non-safety related and non-quality related. The electrical cables affected by this change are non-class 1E power. Any important to safety equipment is provided compensatory measures to prevent increased probability of malfunction.
3SM-CD-002	This site modification installed a lateral restraint on the suction head assembly of the condensate pump due to a crack in the weld on the spacer column, resulting in degraded hydraulic performance and cavitation noise.	This site modification did not introduce an unreviewed safety question. This system does not interact with equipment important to safety. This change does not affect pump output. It improves operation and reliability. There is no effect on response.

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SMOD Number	Description	Safety Evaluation Summary
3SM-CD-011	This site modification changed the 6" diameter globe valves in the condensate system (valves 3MCDNV136/38/40), which have failed due to excessive operating conditions, with 2" diameter globe valves.	This site modification did not introduce an unreviewed safety question. The CD system is not important to safety and does not supply or draw from safety related equipment. The valve being installed does not affect the operation of the system or the ability of the system to perform its required tasks. The valve is only used to put the system into operation and can fail to any position without any negative effect.
3SM-CH-004	This site modification rerouted the charging pump discharge PSV drain line to the EDT.	This site modification did not introduce an unreviewed safety question. The PSVs will still provide overpressure protection and, as such, will not impact testing described in UFSAR 14.2. Calculations 13-MC-CH-305, 512 and 534 show that required postulated conditions will not be impacted.
3SM-CP-003	This site modification installed "R" class 18" x 15" access panel doors to provide access to valves UV-2B and UV-3A.	This site modification did not introduce an unreviewed safety question. The access panels are installed in duct pieces adjacent to the valves and do not change any valve characteristics or interfere with any equipment important to safety. They are fabricated per seismic category 9 (the same category as the ductwork). This addition does not adversely affect the ability of quality related structures, components and systems to perform their intended function.
3SM-DG-025	This site modification replaced Square D temperature switches with new Static "O" Ring temperature switches, as well as the thermowells that hold the Square D switch sensor bulbs, to correct a vibration-induced setpoint drift problem experienced with the Square D switches.	This site modification did not introduce an unreviewed safety question. The new switches are seismically and environmentally qualified for the diesel generator jacket water and lube oil temperature controller applications. The failure modes and functioning of the new switches are similar to those of the existing Square D switches; probability that the diesel generators will fail to start and accept electrical loads within the required 10-second time period is decreased. Because the quality requirements

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SMOD Number	Description	Safety Evaluation Summary
3SM-ED-010	This site modification reduced the travel stroke on ED & SC system control valves to reduce the potential for condenser tube failures.	of the new components are identical to the existing ones, there is no reduction in the margin of safety. This site modification did not introduce an unreviewed safety question. It changes hardware only, and this change is per valve vendor technical input. The control valves are not safety related or important to safety, and thus have no impact on previous accident analyses.
3SM-FH-010	This site modification added a protective sheet metal cover for the RTMZ limit switch arm to prevent the inadvertent operation of the switch due to people walking in the area.	This site modification did not introduce an unreviewed safety question. This change does not involve or affect any equipment important to safety. All of the interlocks and design features are unchanged, and the machine is being operated in accordance with approved procedures.
3SM-FP-004	This site modification removed normally closed contacts from the coil of relay RH1 in fire panels due to the CO2 system being undependable as a result of inherent design-flaws.	This site modification did not introduce an unreviewed safety question. This wiring change does not impact nuclear safety, as it returns the system to its original level of dependable operability. Consequences of a malfunction of equipment important to safety remain the same as originally evaluated in the UFSAR.
3SM-HP-002	This site modification installed needle valves on hydrogen analyzer reagent gas flowmeters to replace flowmeter control valves.	This site modification did not introduce an unreviewed safety question. The needle valves are consistent with the design bases. The analyzer functions as required to aid in post-LOCA hydrogen control. Analyzer design seismic Category I and trains are separated to preclude failure of other important to safety equipment.
3SM-LR-011	This site modification modified/added pipe supports on lines connecting to the liquid radwaste anti-foam pump to eliminate potential pipe damage due to vibration.	This site modification did not introduce an unreviewed safety question. A pipe rupture in the lines could only result in leakage of anti-foam solution to the floor drain. There is no safety related equipment in the building. The lines are not quality related since the fluid contained is



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SMOD Number	Description	Safety Evaluation Summary
3SM-HA-006	This site modification relocated the transformer control cabinet and added a termination cabinet.	not radioactive. Support strengthening only serves to reduce probability of malfunction. This site modification did not introduce an unreviewed safety question. It does not alter the operation of the facility. Only NQR components are affected; no changes to any Q-class or important to safety equipment are being made. Only the location of equipment is altered. The function of the system is unchanged.
3SM-NH-002	This site modification added weld receptacle 3E-NHN-130 to MCC bucket 3E-NHN-M3013 to support ILRT test equipment.	This site modification did not introduce an unreviewed safety question. MCC M30 is non-class equipment and fed from non-class bus E-NGH-L04 to NAN-S02. If fault occurred, load center L04 or MCC M3013 would trip, taking only that equipment. The only foreseeable accident would be misapplication of the receptacle which, if faulted, would trip the MCC cubicle which is non-class power.
3SM-PC-001	This site modification modified the refueling pool LOCA drain blind flange from a 10" blind flange with 1" drain line to a 10" blind flange with reducers to the 1" drain line, in order to avoid a radioactive crud trap.	This site modification did not introduce an unreviewed safety question. The modified blind flange has the same design parameters and construction practice as the original design and operates like the existing flange. Blind flanges do not affect any system operation. The additional weight falls within code allowables such that probability of an existing accident analysis is not increased.
3SM-RC-015	This site modification removed snubber 13-RC-016-H-008 on the pressurizer main spray piping to alleviate interference with the handwheel operation of valve P-RCE-V-243.	This site modification did not introduce an unreviewed safety question. The function of the piping snubber is a passive feature during system operations, and the design change has no operating requirements. The piping system is still adequately supported without this snubber, and all piping stresses remain within the ASME code allowables.
3SM-RJ-015	This site modification swapped analog inputs to both PC and	This site modification did not introduce an unreviewed

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SMOD Number	Description	Safety Evaluation Summary
	CHC to reduce exposure to unit trips if certain analog input cards are shorted.	safety question. The PMS does not initiate any direct functions, and its capacity to cause a turbine trip or loss of feedwater flow signals (the accidents evaluated in the UFSAR) occurs only if a malfunction by equipment failure or human error occurs first. The PMS is a non-safety related system and is not required for plant safety.
3SM-SC-006	This site modification installed tubing to provide sample capability to the Cold Lab of actual Demin Effluent upstream of the Demin Bypass and Chemical Injection points.	This site modification did not introduce an unreviewed safety question. It is a modification to equipment which is not safety related or important to safety. It has no impact on UFSAR accident analysis and is excluded from the scope of Technical Specifications.
3SM-SC-009	This site modification rerouted the vent line from the Waste Collection Tank to the Chemical Waste System Low TDS sump, to resolve a personnel safety hazard and equipment corrosion problem.	This site modification did not introduce an unreviewed safety question. The rerouting of the vent line does not affect any procedures, tests or experiments described in the UFSAR. The Chemical Waste system does not serve an accident mitigation function. No important to safety equipment is affected, and no Technical Specifications are involved with this change.
3SM-SC-015	This site modification removed the existing tee at the end of PSV005 discharge line on top of Blowdown Flash Tank SCN-X01 to prevent valve blowoff from damaging the side of the Turbine Building by directing the flow away from the building. Pipe support will be redesigned to restrain blowdown force.	This site modification did not introduce an unreviewed safety question. The structural integrity of the piping system and pipe supports is maintained. The margin of safety is not reduced, as the affected piping, components and supports remain fully operational within allowable limits for loads and stresses as per code and UFSAR Section 3.9.3.
3SM-SF-010	This site modification revised Feedwater Control System (FWCS) setpoints to enhance system performance and improve stability.	This site modification did not introduce an unreviewed safety question. It provides more stable system operation (and thus flow rate), reduces transient overshoots, minimizes feedwater pump governor oscillations, and reduces excessive feeding of the steam generators on a refill

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SHOD Number	Description	Safety Evaluation Summary
3SM-SG-023	This site modification increased the IA setpoint at the Atmospheric Dump Valves (ADV) from 90 PSIG to 100 PSIG for the transfer from IA to Nitrogen supply to the ADVs for reliable operation of the ADVs.	demand. The design bases are unaffected by this change. The net effect is an improvement in system operation, thus there can be no possibility of a different type of malfunction. This site modification did not introduce an unreviewed safety question. Since the normal range of the IA pressure at the ADVs does not extend below 103 PSIG, this IA pressure switches setpoint change does not put more demands on the Nitrogen accumulator. Since it brings the backup Nitrogen supply into play sooner, it could decrease consequences of a malfunction or failure in the IA supply.
3SM-SG-034	This site modification changed the setpoints of the pressure safety valves (PSVs) on the lines which supply nitrogen to the atmospheric dump valves (ADV) to allow for a greater margin between the point that the regulator will shut off tight and the point where the safety valve will lift.	This site modification did not introduce an unreviewed safety question. The UFSAR evaluates the ADV failing open or closed and concludes that neither will result in any unacceptable consequences with regard to plant safety. The increase in PSV setpoint does not increase probability of ADV failure due to operator error or mechanical/control system failure. The capability of the nitrogen accumulators to provide sufficient pressure to maintain ADV operability is ensured, and the operation of the ADVs, nitrogen system solenoids and check valves are not affected.
3SM-SI-003	This site modification installed an oil drain assembly and spray deflector on LPSI and CS pumps.	This site modification did not introduce an unreviewed safety question. These additions are external to the pumps and only affect the method of draining the oil; pump operability and performance are not impacted. The spray deflector assembly does not affect fluid boundary, and its integrity during an accident is demonstrated by the design calculations. These additions do not affect pump flow or reliability.
3SM-SP-010	This site modification adjusted the spray pond high level	This site modification did not introduce an unreviewed

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SMOD Number	Description	Safety Evaluation Summary
	ERFDADS output to 14.7 ft. and updated the ERFDADS input/output list, as this was inadvertently overlooked when SMOD 3-SM-SP-008 revised the high level alarm setpoint.	safety question. The walls of the spray pond are designed to handle wind driven waves up to 15.71' high. The setpoint change does not result in a water level greater than analyzed for. Also, the blowdown weir in the side of the pond wall permits overflow, and the alarm lets operations know if the weir is plugged.
3SM-SQ-009	This site modification replaced resistor R-26 on the single analyzer PC board assembly 952126 with either a field selectable or variable resistor to improve component reliability and reduce the number of special reports and LERs to the NRC.	This site modification did not introduce an unreviewed safety question. It does not involve a challenge to nuclear safety because it changes a resistance value only and not the intent of the design or the performance of the equipment. The mechanisms for failure are the same as those for the original design.
3SM-SQ-031	This site modification bypassed the inverter board to eliminate a low voltage problem, which will allow proper calibration of flow transmitters for radiation monitors 13-SQN-RU-142, -144, and 13-SQB-146.	This site modification did not introduce an unreviewed safety question. It removes components that are preventing the equipment from operating over its full designed range; therefore, a malfunction of important to safety equipment is not increased. No margin of safety is reduced because this modification does not change any functional design, nor does it change any radiation level setpoints.
3SM-SR-003	This site modification installed a nipple on the additive conveyor cover suitable for hook-up of a portable vacuum pump to remove cement dust.	This site modification did not introduce an unreviewed safety question. This change has no interaction with important to safety boundaries and has no impact on Technical Specifications. UFSAR Chapter 15 safety analyses are not affected by the SR system.
3SM-SR-010	This site modification added a 3-way valve in the resin sluice line for filling containers in the high activity storage area.	This site modification did not introduce an unreviewed safety question. This change provides the same capability for sluicing resins as presently exists in the truck bay. There is no change to existing system functions other than location. ANSI B31.1 integrity is maintained.



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SMOD Number	Description	Safety Evaluation Summary
3SM-SV-001	This site modification added a .750" x .080" deep hole to the RCP lower rigid coupling half to provide the required volume to allow the key phasor probe flux to trigger.	This site modification did not introduce an unreviewed safety question. The hole does not cause a shaft balancing problem; it does not result in any possible RCP operating anomalies which are not already covered in the existing UFSAR analyses.
3SM-ZA-011	This site modification installed permanent building steel to assist in periodically removing the E.C.W.S. heat exchanger "A" outlet spool and access cover.	This site modification did not introduce an unreviewed safety question. The added building steel is not a safety related item, and it performs no safety related function. It is a passive feature during system operations, and the design change has no operating requirements.
3SM-ZZ-002	This site modification replaced wiremesh gate locksets with cylinder type locksets and installed door closers to resolve malfunctioning problems found with the existing locksets.	This site modification did not introduce an unreviewed safety question. The door mechanism and function remains the same. Neither the gates nor locksets are connected to equipment; replacing the locksets enhances lockset operation on the gates. The keying structure in the security plan remains the same.
ASH-SK-035	This site modification revised certain security software to conform to guidance contained in Section 4.5 of NUREG/CR-0543, "Central Alarm Station and Secondary Alarm Station Planning Document."	This site modification did not introduce an unreviewed safety question. The security software affected by this change is not described in the safety analysis report, no procedures related to the software are described in the safety analysis report, and the modification does not involve tests or experiments not described in the safety analysis report. The site modification does not involve any systems or equipment incorporated in the Technical Specifications.



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SARCN Number	Description	Safety Evaluation Summary
3148	This change to Tables 6.1-3 and 5.2.1-8 clarified the name of the manufacturer of interior coatings and corrected some descriptions of the coating applications to reflect as-built conditions.	This change did not introduce an unreviewed safety question. Both materials were qualified to ANSI N101.2 and comply with Reg. Guide 1.54.
3196	This change to Sections 91.37, 11.5, 15A.10, and 18.11.F reflects a change in the operation of the HVAC particulate/iodine samplers to operate at a fixed sample flow rate with manual control instead of varying the flow automatically (isokinetically).	This change did not introduce an unreviewed safety question. It still meets the commitment of the design principles of ANSI N13.1-1969, but eliminates the operating mode of varying sample flow to match process velocity. This results in more accurate prediction of sample line loss values for particulates and iodines, and more reliable operation of the radiation monitors.
3198R1	Editorial change to Sections 3.5.1.4 and 3.5.1.5 to incorporate information from the Safety Evaluation Report (SER), Supplement 5. A probabilistic risk assessment (PRA) was completed that demonstrated the current spray pond configuration is acceptable from the tornado missile protection standpoint. The NRC accepted the conclusion of this PRA in SER, Supp. 5.	N/A
3201	This change to Tables 1.8-3, 11.3-6, 11.3-7, and 12.2-7 took exception to Reg. Guide 1.140 and allowed the normal HVAC HEPA filters to meet in-place penetration and bypass leakage testing acceptance criteria of less than 1%. (This change allowed normal HVAC filtration systems to be tested to the same acceptance criteria as essential HVAC systems.)	This change did not introduce an unreviewed safety question. The normal HVAC systems have no safety design bases. This modification does not cause any physical change to equipment or any alteration in operator response. The potential insignificant increase in radioactive releases during normal operation resulting from this change is well within the 10 CFR 20 limits.
3205	Editorial change to Section 7.3.1.2 and Tables 7.3-12, 7.5-1 and 11.5-1 to correct setpoints listed for the control room monitors (RU-29 & 30) and the ranges listed for the fuel pool area radiation monitor (RU-31) and containment power	N/A



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3206	access purge exhaust monitors (RU-37 & 38). This will make the UFSAR consistent with PVNGS Technical Specifications, Table 3.3-6, and the PVNGS System Description Manual. This change to Section 12.5.2.2 added and clarified calibration and response check requirements for Radiation Protection Instrumentation, and revised the minimum quantities and types of instruments to be maintained in the units.	This change did not introduce an unreviewed safety question. It provides continuity between Industry Standards and Good Practices, PVNGS Regulatory Commitments, PVNGS Licensing Documents, and PVNGS Administrative Programs and Procedures. It includes a requirement to maintain 3 portable radiation survey instruments with a range of up to 10,000 R/hr. at each unit. The radiation monitoring capability of the plant is actually enhanced.
3207	Editorial change to Section 1.8 modified the response to Reg. Guide 1.101 to state "the guidance of NUREG-0654 was utilized in developing the PVNGS E-Plan," rather than "the position of NUREG-0654 is accepted." This more accurately reflects that our E-Plan is prepared using NUREG-0654 as a guide, rather than a rigid requirement. Our E-Plan complies with 10 CFR 50 Appendix E and 10 CFR 50.47(b), and compliance with NUREG-0654 is not required by regulation.	N/A
3208	This change to Sections 9.4.2.2.1.1 and 9.4.2.2.2 clarified the UFSAR description of the isolation of normal HVAC from the ESF pump rooms during operation of the ESF equipment and safety related auxiliary feedwater pumps, by utilizing the description from the System Descriptions Manual, Section HA-2, as the current description may be misleading.	This change did not introduce an unreviewed safety question. Technical Specifications Sections 3/4.7.1.2 and 3/4.5 are not affected. This change only provides clarification of isolation requirements for normal Auxiliary Building HVAC system with ECCS equipment rooms. It does not affect the operability requirements for the system or change any Limiting Condition of Operation requirements. Since the system still maintains the affected rooms within its Equipment Qualification temperature limits, no margins of safety are reduced.
3209	This change to Section 12.5.3.7 specified that sources of	This change did not introduce an unreviewed safety question.



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	radioactive material be placed in "secure storage" instead of in locked areas, to provide some flexibility needed for certain storage situations.	Section 12.5.3.7 does not address the operation of equipment, and it is not related to plant operation. Within the control environment established by PVNGS Administrative Procedures, the changes proposed to the UFSAR do not significantly affect the probability of source loss.
3211	This change to Table 3E-1 revised the Containment Building environmental qualification parameter of 40-year integrated radiation dose. The revised value of 1.45E8 rads Beta falls within the reviewed and accepted range of 1E8 to 2E8 rads stated in PVNGS SER, Supplement 5, App. B, Section 3.3.6.	This change did not introduce an unreviewed safety question. It simply reflects the correction of an Environmental EQ Parameter which is a result of a previously evaluated accident scenario. This change is administrative in nature, and study 13-NS-A25, Rev. 0, demonstrates continued qualification of equipment in containment to this higher dose.
3212	This change to Table 8.3-6 revised the list of class 1E DC system loads to reflect the values in calculation 13-EC-PK-202, Rev. 3, which shows more accurate battery loading.	This change did not introduce an unreviewed safety question. The calculation verifies that the Class 1E batteries are capable of supplying power to all the connected safety related equipment for the duration of a two hour period with adequate margin. The Class 1E DC Bus loads remain the same, and the design basis for the PK system remains the same. Section 15 of the UFSAR remains unchanged.
3213	Editorial change to Figures 3.6-26, 28, 29, and 30 provided clarification by identifying the lines that are shown. The figures were not changed; only labels were added to clarify the identity of the lines.	N/A
3214	This change to Table 3E-1 and Section 3A.20 revised the LOCA/MSLB temperature for the MSSS building above the 100' level from 213 deg F to 300 deg F. (The 213 deg F value was incorrectly inserted with SARCH 2119, as identified in ODR 91-0013.)	This change did not introduce an unreviewed safety question. Increasing the temperature for qualified equipment does not violate the design, material or construction standards applicable, or affect the overall performance of the system. The change neither impacts the operability requirements for the equipment in the MSSS building above the 100' level nor affects any Limiting Conditions for Operation requirements

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3215	This change to Section 6.2.5.2.2.3 correctly stated the operational characteristics of the Hydrogen Purge Subsystem by revising the description of the containment purge system driving head to reflect the as-built design using containment/plant stack differential pressure.	prescribed in the Technical Specifications. This change did not introduce an unreviewed safety question. The hydrogen purge subsystem is only required to operate post-LOCA. It is a secondary backup to the two redundant "Q" class hydrogen recombiners and is only used in the unlikely event that both of the hydrogen recombiners fail. Because it is continually decreasing (diluting) the hydrogen concentration when in operation (with or without an operational recombiner blower), the consequences of a malfunction of equipment important to safety are not increased.
3220	This change to Section 8.1.4.1.C revised the description of the startup transformers' design requirements to make clear that administrative controls are utilized to preclude overloading of the startup transformers. It adds a qualifying statement "when loads are administratively controlled between units," to the offsite power system design basis that at least one offsite source to plant auxiliaries and ESF buses is available with a single startup transformer outage.	This change did not introduce an unreviewed safety question. It does not cause systems to be operated outside its design or testing limits. The ability of offsite/onsite electrical systems to achieve its designed safety functions is not affected. It does not add loads to the system that were not analyzed in the original design. It does not change, degrade, or prevent actions described or assumed in the UFSAR.
3221	This change to Sections 9.5.5 and 9.5.7, and Table 9.2-1 revised flow rates and differential temperatures as listed for the diesel generator cooling water design parameters to reflect current calculated values.	This change did not introduce an unreviewed safety question. The deliverable cooling water flows have been verified as acceptable in calculation 13-MC-SP-A02. The diesel generators continue to perform their safety function to mitigate accidents described in Chapter 15 without degradation of the diesel engines, the ESPS continues to remove the required heat loads from the diesel system coolers, and the diesel engines operate within their temperature limits. The diesel generators, ESPS, and essential spray pond function as described in the UFSAR.

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3227	This change to Sections 3.7, 3.7.1.4, 3.7.2.3.3, and 3.7.2.11 identified the design basis for seismic analysis, revised the soil depths under each unit, revised the description of seismic category I structure models, and updated the discussion of torsional effects for seismic systems, so that these sections agree with the Seismic Topical Design Basis Manual (C5-DBM) and the descriptions of analyses are identical.	This change did not introduce an unreviewed safety question. The proposed changes increase the depth of soil over the bedrock, which reduces amplitude of free field motion and decreases seismic response of the buildings, systems and components. Consequently, margin of safety against seismicity is increased. Possibility of liquefaction of soil under the foundations does not exist, because depth of foundations and water table remain unchanged.
3229	This change to Section 98.2 changed the method of describing and categorizing the combustible (fire) loading in each fire zone by removing specific quantities of combustible loads (in pounds) and specific fire severity times (in minutes) and classifying each fire zone in one of three combustible loading categories: low, medium or high.	This change did not introduce an unreviewed safety question. The categories correspond conservatively to those referenced in the NFPA Fire Protection Handbook. There is no change to the protection provided for safety related equipment, including compliance with 10CFR50, Appendix R. Control of combustibles is maintained as described in accordance with Procedure 14AC-0FP03.
3231	Editorial change to various sections corrected typographical errors involving misspelling, reference numbers and general format. The references utilized for the corrections include the Webster's Dictionary and the PVNGS Style Guide.	N/A
3232	This change to Section 11.5.2.1.1.3.2 clarified the radiation monitoring system accuracy statements of the UFSAR to add qualification to the values stated. This was necessary because the stated accuracies reflect a physical impossibility if not referenced to a specific isotope and adjusted for detector background count rate interference.	This change did not introduce an unreviewed safety question. Conservatism is introduced through the non-subtraction of detector background counting rate, and by specifying monitor response in terms of an equivalent concentration of Xe-133 for monitors RU-29, -30 and -145. There is no change in the equipment or its operation and no bearing on failure probabilities. The accuracy of area and process channels listed in the Technical Specifications is not adversely affected.
3236	This change to Table 6.2.1-8 modifies a previous change in	This change did not introduce an unreviewed safety question.

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	SARCH 3148 by adding a clarification that, although the peak containment pressure analysis assumes that the polar crane and bridge coatings are inorganic, they are actually coated with epoxy and have an insignificant effect on the analysis.	Changing the coating on the polar crane from inorganic to an epoxy, which complies with Reg. Guide 1.54 and ANSI N101.2, cannot affect the initiation of any accident or cause a malfunction of any equipment which may contribute to the initiation of any accident. The peak containment pressure analysis is unchanged and remains valid.
3246	This change to Sections 9.5.1.2, 9.5.1.5, 9B.3-1, and 13.1.2.2.1.2 reflected an organizational change and clarified the scope of the existing PVNGS Fire Protection Program to ensure consistency with regulations and licensing commitments.	This change did not introduce an unreviewed safety question. The UFSAR has been revised to include all elements of the fire protection program and the primary organizations responsible for the program. This change does not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
3249	This change to Table 10.4-8 reflected that the reactor makeup water tank (RMWT) isolation valves to the auxiliary feedwater system are manual, rather than automatic, and have local indication, rather than indication in the control room. (This change is necessary to maintain configuration control of the UFSAR to reflect the as-built design of the Auxiliary Feedwater System.)	This change did not introduce an unreviewed safety question. The Auxiliary Feedwater system safety functions, initial conditions for the accident scenarios, and the assumptions used in the safety analysis remain unchanged. Margin of safety is not reduced since the isolation of the alternate source by the existing system design precludes adversely impacting the safety related portions of the primary water source and the redundant features of the essential Auxiliary Feedwater trains.
3262	This change to Section 13.1 reflected the current PVNGS organization which was changed to improve the performance of both the production and service functions, and to more clearly define the lines of functional responsibility and accountability.	This change did not introduce an unreviewed safety question. It is purely administrative in nature. The organization has been changed to be consistent with objectives of achieving clearly defined responsibilities, authorities and accountabilities. It does not affect equipment important to safety or facility operation. As such, the potential for an unanalyzed accident is not created.
3263	This change to various sections in Chapter 15 incorporated appropriate data from the Unit 3, Cycle 3 Reload Analysis	This change did not introduce an unreviewed safety question. The RAR was reviewed and approved by the NRC with Amendment



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	Report (RAR). Additionally, information from Section 15.6.3.2.2 from CESSAR Amendment 7, which is part of our license basis, was incorporated to provide explanatory text regarding the use of a three second delay between turbine trip and loss of offsite power in selected events.	26 of the Unit 3 Technical Specifications, thus its incorporation into the UFSAR is deemed editorial. The changes do not affect design, operability or usage of any equipment important to safety, and do not revise any design basis criteria.
3276	Editorial change to Section 18.I updated SAR cross-references for STA Training Program which were overlooked in the 1989 update.	N/A
3278	This change to Section 4.4 incorporated appropriate data from the Unit 3, Cycle 3 Reload Analysis Report (RAR).	This change did not introduce an unreviewed safety question. It is for consistency only in order to incorporate thermal hydraulic design data that was previously submitted to the NRC in Unit 3, Cycle 3 RAR and Unit 3, Cycle 2 RAR. This information had been accepted by the NRC in the Safety Evaluation Report. Other than the respective core reloads, the changes do not involve modifications to plant equipment or components, or revisions to design basis criteria.
3281	This change to Section 4.3 deleted the nominal core physics characteristics of Unit 3, Cycle 2, and replaced that information with similar data descriptive of the Unit 3, Cycle 3 core design. [The majority of new information was taken directly from the Unit 3, Cycle 3 Reload Analysis Report (RAR).]	This change did not introduce an unreviewed safety question. Since the Unit 3, Cycle 3 core design documented in the RAR has been found acceptable [by the NRC], all Nuclear Design values from the CE physics models for Unit 3, Cycle 3 are acceptable by default, even if they have not been presented in the RAR. These changes are a simple update of nominal data descriptive of the new core and are not directly safety related.
3282	Editorial change to Section 1.1 updated a description of PVNGS from being owned by seven utilities who "own undivided interests" to being "owned or leased pursuant to sale and leaseback transactions approved by the NRC." Since 1985 the owners of PVNGS have executed and received NRC approval of several sale and leaseback arrangements for shares of Units	N/A

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	1, 2 or 3, so the former description was technically inaccurate.	
3285	Editorial change to Section 1.1.5 replaced scheduled dates for the commercial operation of each PVNGS unit with actual dates, consistent with the Monthly Operating Report submitted to the NRC.	N/A
3286	Editorial change to Section 15.0-9 deleted a reference to Chapter 16, since the chapter is only a reference to the Technical Specifications, and the UFSAR does not typically reference the Technical Specifications for definitions of operating modes.	N/A
3287	Editorial change to Sections 9.5.3.2.2 and 9.5.3.2.2.3 clarified the inconsistent use of "isolation transformer" by changing it to "regulating transformer", to be consistent with the rest of the UFSAR.	N/A
3288	Editorial change to Section 14.A-19 updated the reference for the Combustion Engineering Comprehensive Vibration Program from "Revision 0" to "Revision 1".	N/A
3296	This change to Section 6.3.3.7 incorporated appropriate data from the Unit 3, Cycle 3 Reload Analysis Report (RAR), and made editorial corrections to Table 6.3.3.7-1 for Units 1 and 2, Cycle 3 regarding system and core flow rates. Editorial changes were also made to Table 6.3.3.7-2 to state that cycle-specific LOCA results are bounded by Cycle 1 (rather than explicitly stating values) to simplify future update requirements.	This change did not introduce an unreviewed safety question. This information has received NRC review and approval and, therefore, is deemed editorial. The changes are to ensure that UFSAR Section 6.3.3.7 is consistent with the RARs and Technical Specification changes previously submitted for the Unit 1, 2 and 3, Cycle 3 core reloads.
3311	Editorial change to Tables 1.7-1 and 1.7-2 updated revision numbers and dates of Piping & Instrumentation Diagrams	N/A



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(P&IDs), so that the lists of drawings referenced in the UFSAR reflect the most current version. The numbers and dates were identified from lists generated by DDC Corporate, and revisions were made under Nuclear Engineering procedures that control such changes.

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16AC-0EP04	2	-	The revision to this procedure, "Emergency Plan Implementing Procedures, Review and Approval," changed the title and responsibilities of the Manager, Emergency Planning and Fire Protection due to administrative changes in the organization and changes in the responsibilities of the Supervisor, Emergency Planning.	This revised procedure did not introduce an unreviewed safety question. The duties and responsibilities of the Supervisor, Emergency Planning are now shared between the Onsite and Offsite Emergency Planning Supervisors. This revision does not have any effect on the initiation of an accident, but serves to delineate when and how PVNGS performs Emergency Preparedness Drills.
32FT-9QF01	0	-	This new procedure, "Fire Protection Test Program Operations Radio Battery Test," includes information required as a result of the Fire Protection JCO--test requirements for the back-up battery power supply to the Operations portion of the Plant Maintenance Radio System.	This new procedure did not introduce an unreviewed safety question. Though the tests performed on batteries do not require the disabling of the system or the degradation of the normal system readiness, provisions have been made so that compensatory measures and all necessary notifications are implemented. These measures are in accordance with fire protection regulatory requirements and guidelines, and provide for an equivalent level of safety.
40AC-0ZZ06	8	10	The PCN to this procedure, "Locked Valve and Breaker Control," incorporated the resolution of CRDR9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the even of a fire in the Control Room, and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
41A0-1ZZ13	2	11	The PCN to this procedure, "Natural Circulation Cooldown," changed the natural circulation cooldown SIT isolation instructions to match the instructions found in the normal cooldown procedure, 410P-1ZZ10. This incorporates isolation	This PCN did not introduce an unreviewed safety question. If the SITs are isolated per the Technical Specifications and the EOPs, they are available for a greater duration during plant cooldown (i.e., until RCS pressure is less than

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			of the SITs between 380 and 400 psia.	430 psia) to mitigate consequences of a loss of RCS inventory. If the SITs are isolated per the UFSAR Section 15, they are not available for the portion of the cooldown when the RCS pressure is below 650 psia. Inadvertent dumping of the SITs is prevented by reducing the pressure in the SITs to 310 psig when RCS pressure is less than 750 psia.
410P-1CH03	5	2	The PCN to this procedure, "Reactor Coolant Pump Seal Injection System," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
410P-1RC01	7	7	The PCN to this procedure, "Reactor Coolant Pump Operation," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added are added to prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
410P-1SF05	4	6	The PCN to this procedure, "Operation of the Steam Bypass Control System," changed the upper power level for testing	This PCN did not introduce an unreviewed safety question. The SBSCS and its individual components are operated in a

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			SBCS valves with actual steam flow on mode 1 from 95% to 97% (per the recommendations of EER 90-SG-189).	manner consistent with the design and assumptions in the UFSAR. In the analysis for Decrease in Heat Removal by the Secondary System, the SBCS is assumed to be in manual and does not operate to mitigate accidents. The function of control and instrumentation systems, of which SBCS is one, is not essential for the safety of the plant.
42AO-22213	1	10	The PCN to this procedure, "Natural Circulation Cooldown," changed the natural circulation cooldown SIT isolation instructions to match the instructions found in the normal cooldown procedure, 42OP-22210. This incorporates isolation of the SITs between 380 and 400 psia.	This PCN did not introduce an unreviewed safety question. If the SITs are isolated per the Technical Specifications and the EOPs, they are available for a greater duration during plant cooldown (i.e., until RCS pressure is less than 430 psia) to mitigate consequences of a loss of RCS inventory. If the SITs are isolated per the UFSAR Section 15, they are not available for the portion of the cooldown when the RCS pressure is below 650 psia. Inadvertent dumping of the SITs is prevented by reducing the pressure in the SITs to 310 psig when RCS pressure is less than 750 psia.
42OP-2CH03	4	2	The PCN to this procedure, "Reactor Coolant Pump Seal Injection System," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
42OP-2RC01	4	6	The PCN to this procedure, "Reactor Coolant Pump Operation," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in



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			valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
43AO-32Z13	0	10	The PCN to this procedure, "Natural Circulation Cooldown," changed the natural circulation cooldown SIT isolation instructions to match the instructions found in the normal cooldown procedure, 43OP-32Z10. This incorporates isolation of the SITs between 380 and 400 psia.	This PCN did not introduce an unreviewed safety question. If the SITs are isolated per the Technical Specifications and the EOPs, they are available for a greater duration during plant cooldown (i.e., until RCS pressure is less than 430 psia) to mitigate consequences of a loss of RCS inventory. If the SITs are isolated per the UFSAR Section 15, they are not available for the portion of the cooldown when the RCS pressure is below 650 psia. Inadvertent dumping of the SITs is prevented by reducing the pressure in the SITs to 310 psig when RCS pressure is less than 750 psia.
43OP-3CH03	1	2	The PCN to this procedure, "Reactor Coolant Pump Seal Injection System," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCN-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.	This PCN did not introduce an unreviewed safety question. It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.
43OP-3RC01	2	6	The PCN to this procedure, "Reactor Coolant Pump Seal	This PCN did not introduce an unreviewed safety question.

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			Injection System," incorporated the resolution of CRDR 9-1-0092, which required the reactor coolant pump high pressure seal cooler isolation valves (RCH-HV-446 thru 453) to be locked open with power removed during normal operations to prevent spurious actions in the event of a control room fire.
43TI-3AF01.	0	-	This new procedure operated AFA-P01 using the Throttle Trip Valve to control pump speed. This test was being performed to prove the methodology used in the Emergency Procedure for operating AFA-P01 in manual mode without governor control power.
70TI-9SF01	0	-	This new procedure, "Feedwater Control System Checkout," controlled the installation and removal of a data acquisition system to monitor the FWCS electronics, and provided guidance for Operations to change the FWCS Master Controller setpoint to aid in collecting dynamic data.
73ST-10G01	2	5	The PCN to this procedure, "Class IE Diesel Generator and Integrated Safeguards Surveillance Test - Train A," lifted

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It is required to meet administrative controls described in the UFSAR for the purpose of locking valves or breakers in their required position to meet the safety analysis. Operators cannot take acceptable compensatory or recovery actions to mitigate the effects of spurious action. The breakers being added prevent spurious closure of the valves in the event of a fire in the Control Room and the consequential interruption of seal injection and seal cooling (via the HP Seal Cooler) to the affected RCP seal assembly.

This procedure did not introduce an unreviewed safety question. It has no effect on the UFSAR Chapter 15 analysis and its radiological consequences. An overfeed condition is prevented by directions to terminate flow if steam generator levels exceed 70% narrow range level, and by the mechanical overspeed trip of the turbine, which is still capable of tripping the turbine and terminating flow. Also, the AFAS signal is capable of actuating to start the remaining train of essential AFW and feed the steam generators.

This new procedure did not introduce an unreviewed safety question. The FWCS is assumed to function in one of four modes in the Chapter 15 analysis: Reactor Trip Override (RTO), High Level Override (HLO), Inoperable, and Normal Operations. The RTO and HLO functions are unaffected by this change. If the system is Inoperable, any change would have no consequence. For Normal Operations, the FWCS is considered not required for plant safety, and any change to the FWCS would also be considered as not impacting plant safety and therefore of no consequence.

This PCN did not introduce an unreviewed safety question. This test uses permanent plant equipment and built-in

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			the lead from the low suction pressure trip interlock to allow cycling the charging pumps in the test position with no suction pressure available due to plant conditions, corrected the leads to be lifted to simulate a DG "Low Lube Oil Pressure" trip, added verification of relay "786X" actuation at #1EPBAS03B upon a DG "Generator Differential Trip," and allowed the Test Director the option of changing channel assignments on the Gould chart recorder as required.	designed safety features to demonstrate the plant equipment's response to designed accident conditions. The equipment is not required to be operable. This testing is to verify compliance with surveillance requirements, and this change specifically affects the charging pumps and Diesel Generator systems. Therefore, the margin of safety as defined in the Technical Specifications is not reduced.
73ST-1DG02	2	6	The PCN to this procedure, "Class IE Diesel Generator and Integrated Safeguards Surveillance Test - Train B," lifted the lead from the low suction pressure trip interlock to allow cycling the charging pumps in the test position with no suction pressure available due to plant conditions, added verification of relay "786X" actuation at #1EPBAS03B upon a DG "Generator Differential Trip," and allowed the Test Director the option of changing channel assignments on the Gould chart recorder as required.	This PCN did not introduce an unreviewed safety question. This test uses permanent plant equipment and built-in designed safety features to demonstrate the plant equipment's response to designed accident conditions. The equipment is not required to be operable. This testing is to verify compliance with surveillance requirements, and this change specifically affects the charging pumps and Diesel Generator systems. Therefore, the margin of safety as defined in the Technical Specifications is not reduced.
73ST-2DG01	3	-	The revision to this procedure, "Class IE Diesel Generator and Integrated Safeguards Surveillance Test - Train A," incorporated ICRs and PCNs, added new notes and precautions during testing, rearranged Appendix I to allow for easier test hook-ups, added independent verification of initial hook-ups, and deleted mid-loop conditions for performance of this test.	This revised procedure did not introduce an unreviewed safety question. All equipment and testing methodology being used to simulate accident conditions and the safety equipment response are built-in design Engineered Safety Features as described in the UFSAR. The test connections required use only available contacts that are isolated from permanent plant voltage sources. The equipment under test is not required to be operable at the time of the testing, and each safety related train is completely independent and isolated from each other.
73ST-3DG01	2	-	The revision to this procedure, "Class IE Diesel Generator and Integrated Safeguards Surveillance Test - Train A," incorporated ICRs and PCNs, and added new appendices for solenoid valve voltage verifications, expected control room	This revised procedure did not introduce an unreviewed safety question. All equipment and testing methodology being used to simulate accident conditions and the safety equipment response are built-in design Engineered Safety

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			annunciator alarms, and test recorder verifications.	Features as described in the UFSAR. The test connections required use only available contacts that are isolated from permanent plant voltage sources. The equipment under test is not required to be operable at the time of the testing, and each safety related train is completely independent and isolated from each other.
73ST-30G02	2	-	The revision to this procedure, "Class IE Diesel Generator and Integrated Safeguards Surveillance Test - Train B," incorporated ICRs and PCNs, and added new appendices for solenoid valve voltage verifications, expected control room annunciator alarms, and test recorder verifications.	This revised procedure did not introduce an unreviewed safety question. All equipment and testing methodology being used to simulate accident conditions and the safety equipment response are built-in design Engineered Safety Features as described in the UFSAR. The test connections required use only available contacts that are isolated from permanent plant voltage sources. The equipment under test is not required to be operable at the time of the testing, and each safety related train is completely independent and isolated from each other.
73TI-3AF01	1	-	The revision to this procedure, "Auxiliary Feedwater Pump AFA-P01 Pressure Pulsation Test," included testing of 3MAFA-P01 for the reduction of pressure pulsation with the installation of an alternate design minimum recirculation element. (This element is a CCI design with variable flow capability.)	This revised procedure did not introduce an unreviewed safety question. The alternate design flow element is a passive component which has no active action requirements and is intended to maintain a fixed minimum recirculation flow path for the pump. The complete loss of a single train is included as an assumption in the feedwater line break transient analysis, which is the limiting Chapter 15 transient with respect to long-term RCS heat removal. This train loss bounds the worst case scenario for any potential impact this test procedure might have on the system.
73TI-92Z32	1	-	The revision to this procedure, "Steam Generator Secondary Pressurization Test," pressurized the secondary side steam generator water inventory to facilitate identification of leaking tubes via inspection of the steam generator primary side tube sheet.	This revised procedure did not introduce an unreviewed safety question. The margin of safety is not reduced, as the temperature and pressures used for the test are low. The precautions and limits notes that the maximum pressure allowed is 215 psig (230 psia), which is below the maximum

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74RM-9EF20	0	2	The PCN to this procedure, "Gaseous Radioactive Release Permits and Offsite Dose Assessment," added instructions for powering up and performing a required surveillance test on radiation monitor channels RU-37 and RU-38 prior to performing a containment purge, as well as instructions to down power the monitors when not in use.	allowed pressure of 230 psig at 1200f in Technical Specification 3/4.7.2. Also, this test will not be run with fuel loaded in the reactor vessel, so probability of an accident previously evaluated is not increased. This PCN did not introduce an unreviewed safety question. The current procedure requires RU-37 and RU-38 to be operable during purge and therefore does not affect probability of accidents previously analyzed. With purge not in operation, the purge isolation valves are in the closed position. Down powering RU-37 and RU-38 with purge not in operation has no effect on purge isolation valve position. Additionally, the current procedure provides only instructional guidance and does not change the design of RU-37 and RU-38 or the BOB/ESFAS system.
74ST-9SS04	1	-	The revision to this procedure, "Pass Functional Test," changed the test acceptance criteria and rewrote the procedure body.	This revised procedure did not introduce an unreviewed safety question. Boron and Dissolved Hydrogen accuracies are unchanged and only clarified. Gaseous Hydrogen accuracy is more restrictive and provides better information limitations. Radio-Isotopic accuracy is less restrictive at normal operating levels, but meets the NUREG 0737 II.B.3 requirements at postulated post-accident activities. Since all of these parameters are laboratory analyses and utilized for determining conditions in the RCS and Containment following an accident, no adverse effects on the probability or consequences of any accident are postulated.
75RP-9ME03	0	-	This new procedure, "Operation of the Canberra Series 90 Multi-Channel Analyzer," which supercedes Procedure 75RP-9Z270, incorporated a revision which deletes the requirement for semi-annual energy calibrations. (New requirements call for energy calibrations as needed and annual efficiency calibrations.)	This new procedure revision did not introduce an unreviewed safety question. The procedure change does not alter the methodology for the operation or calibration of the RP MCAs, but merely modifies the calibration frequency of the equipment. Neither the procedure nor its changes has any bearing on safety limits, limiting safety system settings,

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limiting conditions of operation, or design parameters for systems or components. The RP MCAs are not safety related or important to safety, and have no direct or indirect effect on any safety related or important to safety systems or components.

770P-9SV02 0 - This new procedure, "RCP Orbital Vibration Monitoring System Operations," is used to turn on power, initialize software, perform functional checks, and perform systematic shutdown of the Orbital Vibration Monitoring System (OVMS) Computer which is used for monitoring Reactor Coolant Pump vibrations.

This new procedure did not introduce an unreviewed safety question. The OVMS is not directly connected to any shutdown or control device, and the RCP/OVMS computer is not connected to nor used to control or operate any device or equipment that is important to safety. Any accident or malfunction occurring while implementing this procedure does not create any direct threat to the public or site. The system is subject to the control of Procedure 79AC-0SV01, which is used to monitor vibrations on the RCPs.

780P-9FX01 2 - The revision to this procedure, "Refueling Machine Operations," added a definition for other visual methods that can be used when the refueling camera is not available.

This revised procedure did not introduce an unreviewed safety question. The camera and other visual methods/load cell evaluation of refueling operations do not have any effect on other equipment. This action simply allows for multiple methods of checking refueling operations. Fuel handling operations and methodology are not affected.

900G-0ZZ05 0 - This new procedure, "Nuclear Safety Division Organization and Responsibility Policy," describes the Nuclear Safety Division and the newly established Director/Deputy Director position, which reports directly to the Vice President, Nuclear Safety and Licensing.

This new procedure did not introduce an unreviewed safety question. This organizational change has not altered responsibilities as described in the UFSAR. The addition of the Director/Deputy Director to the organizational chain does not affect the relationship between the Director, Nuclear Licensing and Compliance, and the Nuclear Safety Department. Reporting of nuclear safety issues to senior management is not affected. The Director/Deputy Director, Nuclear Safety has no reporting relationship to or from the line organization, which ensures that independence is not compromised.



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Action	Description	Safety Evaluation Summary
Op of Cntmtd "Nrmly Cln" Sys	On 8/12/91, portions of the following "normally clean" systems were found to be radioactively contaminated: Nitrogen Supply (Low Pressure), Main Condensate, Nuclear Cooling Water, Essential Cooling Water, Essential Chilled Water, and Normal Chilled Water. Per 75AC-9RP07, "... an immediate safety evaluation of the operation of the system as a radioactive system shall be performed ... in accordance with 79AC-ONS07 (93AC-ONS01), 10 CFR 50.59 Review and Evaluation."	This action did not introduce an unreviewed safety question. None of the UFSAR accident analyses are affected by the small concentrations and amounts of radioactivity described in this change. In the worst case scenario of instantaneous release of all radioactivity contained in these systems, the subsequent dose to the public would be only a small fraction of the allowed limits. In-plant dose rates from such a release would not preclude the operation of important to safety systems. Any planned release of radioactivity from these systems continues to be governed by PVNGS Technical Specifications, the UFSAR, and approved station procedures.
Unit 2 Cycle 4 Fuel Reload	The PVNGS Unit 2 Cycle 4 (U2C4) fuel reload consists of a new reactor core fuel design with 84 new fuel assemblies and 57 previously burned fuel assemblies, all physics and safety analyses to support the reload, and the required start-up testing necessary to verify the reload analyses results.	This action did not introduce an unreviewed safety question. All accidents evaluated in the UFSAR are reanalyzed by ABB CE for the U2C4 reload. No accident event frequency or risk significant sequences have changed from the U2C3 reload accident analyses. Core physics parameters used as input to safety analyses are recalculated for the U2C4 design, and bounding uncertainties are applied. Reanalyzed event results, as presented in the U2C4 Reload Analysis Report, are bounded by the U2C3 and U3C3 results previously reviewed and approved by the NRC.



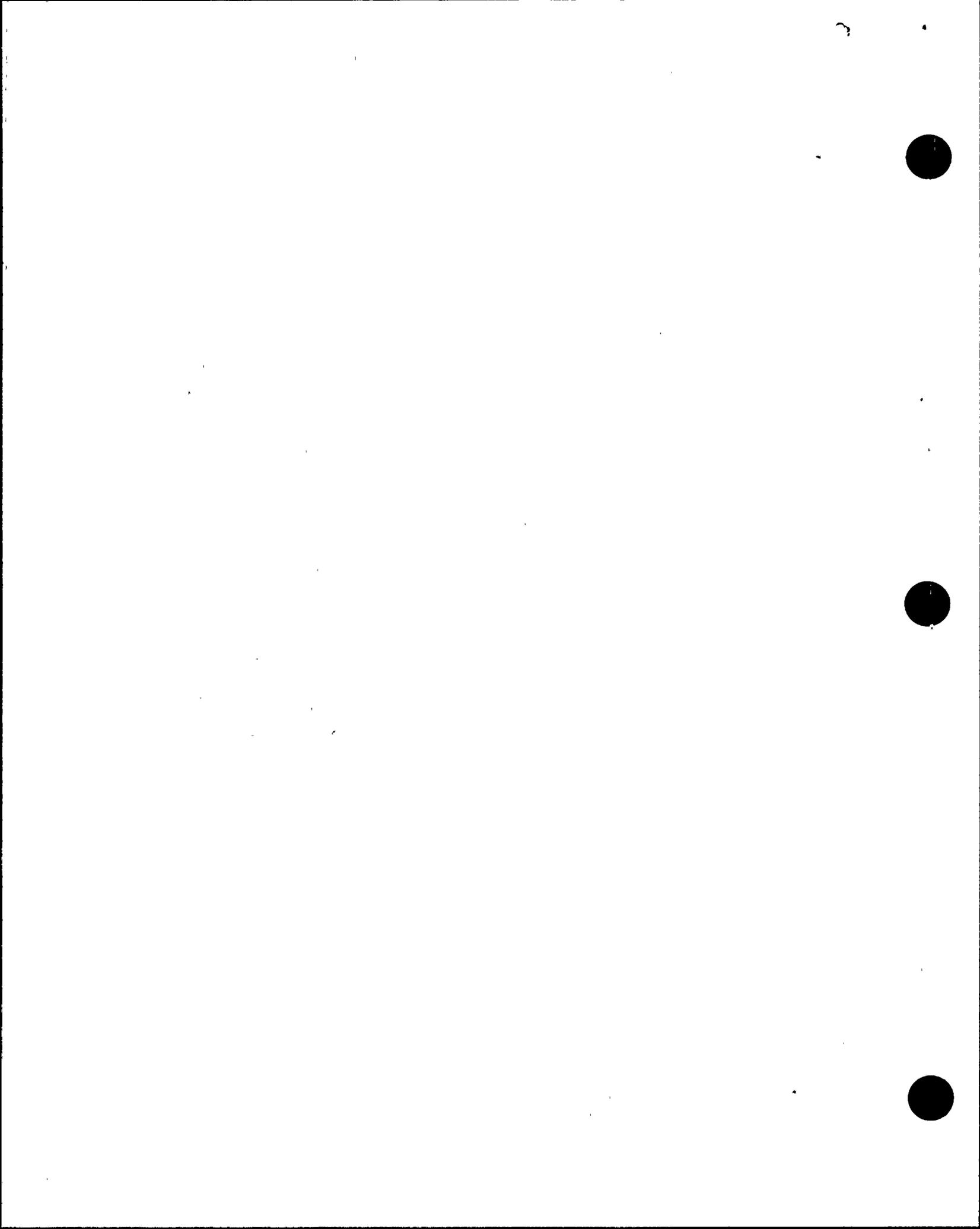
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EER Number	Description	Safety Evaluation Summary
86-HR-010	This EER allowed the use of other than specified space heater wattages in HRN-A01A&B in Units 1 and 2.	This EER did not introduce an unreviewed safety question. The equipment in this system is not safety related. The HR system is a non-quality related system which has no safety design basis. There is no reduction in the Technical Specification margin of safety.
87-AS-017	This EER accepted changing the nitrogen outlet pressure setpoints for Auxiliary Boiler control valves AJASNPCV0123/4 from 2 psig to 20 psig to perform operating functions of wet lay-up blanketing, dry lay-up blanketing, and boiler water draining at a common pressure.	This EER did not introduce an unreviewed safety question. Probability and consequence of a malfunction of equipment important to safety is not increased and the margin of safety is not reduced, because the Auxiliary Boilers and the nitrogen blanketing pressure control valves have no nuclear safety basis and contain no safety related equipment.
87-FP-059	This EER accepted repairing motor driven fire pump pressure relief valve A-FPN-PSV-0048 or replacing in-kind and revising the setpoint from 130 psig to 145 psig +/- 2 psi, to remedy its continuously discharging to the floor drain.	This EER did not introduce an unreviewed safety question. It is a design equivalent change which does not adversely affect form, fit, function and/or safety and complies with governing NFPA requirements. Repairing the valve and revising the setpoint do not increase possibility of an accident or event not previously described in the UFSAR.
87-HC-028	This EER accepted moving the delay tap on SST from MIN to INT to allow more acceleration time of CEDM fans 2-H-HCN-A02A/B/C/D.	This EER did not introduce an unreviewed safety question. The CEDM fans are not considered quality related or important to safety. The plant fails into a safe shutdown whenever the fans fail, no matter what the source of failure is. Margin of safety is not affected since a failure would fail into a conservation condition.
87-ZF-013	This EER accepted adding a protective covering over the latching rods for roof hatch H-12 in the Auxiliary Building, and installing a double leaf type roof hatch for hatch H-12 in units 2 and 3 to keep the rods which operate it from bending.	This EER did not introduce an unreviewed safety question. The roof hatch is not quality related or necessary for system or plant operation, and does not change any system addressed in the Technical Specifications. All additions/changes are performed on systems and components classified Non-Nuclear Safety or Not Applicable To Safety



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EER Number	Description	Safety Evaluation Summary
88-CH-142	This EER evaluated the impact of gouges (in pipe line number 1PCHNL333 of Unit 1) on the structural and pressure integrity of the piping.	<p>Classification. The changes have no adverse impact on roof hatch safety, form, fit, function or its original design basis.</p> <p>This EER did not introduce an unreviewed safety question. The existing mechanical marks (gouges) do not affect the function and operability of the piping, and will not increase probability of a malfunction of the chemical and Volume Control system. The piping is qualified for maximum stress, and the existing maximum gouge depth (.046") is less than the allowable depth (1/16").</p>
88-HF-008	This EER accepted installing 316 stainless steel washers on the Fuel Building duct heaters to replace zinc plated steel washers due to rusting problems.	<p>This EER did not introduce an unreviewed safety question. The change does not adversely affect fit, form or function of the heaters. Function is enhanced since the 316 SS is more corrosion resistant than the present washers. The heaters are not safety related and are not required for a safe reactor shutdown. System operation is not adversely affected.</p>
88-HT-003	This EER accepted abandoning the existing vendor supplied fill/make up water line for air washers in the Turbine Building, and replacing it with a new line routed through the AHU above the water line, as the former line is in an inaccessible location for maintenance or inspection.	<p>This EER did not introduce an unreviewed safety question. These AHUs are NQR and not required for safe shutdown or to mitigate any accident. Failure of a non-quality system is assumed for the purpose of the safety analysis, and the safety analysis remains as described in UFSAR 9.4.4 and Chapter 15. Therefore, consequences of an accident remain unchanged.</p>
89-CD-014	This EER accepted replacing Dragon valves and three-way manifold assemblies to resolve problems associated with the loss of fill in the condensate strainer DP indication.	<p>This EER did not introduce an unreviewed safety question. The condensate system is not classified as being important to safety. The replacement components are supplied by the original manufacturer. The manifolds and valves work in an identical manner as the equipment being replaced. Loss of the condensate filter differential pressure switches does</p>



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EER Number	Description	Safety Evaluation Summary
89-DS-004	This EER accepted adding U-bolts at three existing supports per unit to provide 2-way restraints, instead of vertical-direction supports, in order to prevent leaks in the DS piping in the Turbine Building due to water hammer.	not affect the operation of the condensate pumps. The switches only provide alarm and indication functions. This EER did not introduce an unreviewed safety question. The DS system in the Turbine Building is NQR. It serves no safety function and has no safety design basis as given in UFSAR Section 9.2.4.1. Because the change is located in the NW corner of the 100' elevation of the Turbine Building, no important to safety equipment is affected, and probability of a malfunction of this equipment is not increased.
89-HA-007	This EER accepted replacing corroded solenoid valves in the Auxiliary Building humidifiers with same manufacture (ASCO), different model solenoid valves (which are designed for corrosive applications).	This EER did not introduce an unreviewed safety question. This is a design equivalent change which does not affect plant operations adversely and has no effect on the ability of the system HA to perform its design basis functions. The valve being replaced is a NQR component that has no relationship with any important to safety equipment. Overall performance of the system is improved.
89-IA-031	This EER accepted replacing U.S. Gauge model P-500 pressure indicators with Fisher Controls model J511 P/N 11B8579X022 gauges in the air compressor sequence control line.	This EER did not introduce an unreviewed safety question. It does not impact the functional and operational mode of any equipment or system. The replacement gauge has identical materials and data requirements, and is technically acceptable. The change involves non-safety related components, and the scope of accident analyses of UFSAR Section 15 is unaffected.
89-IA-034	This EER accepted installing a Henry Vogt valve, 3PIANV181, as a replacement for a RP&C valve F81D-X1 in the Turbine Building IA header as a drain valve.	This EER did not introduce an unreviewed safety question. The compressed air systems (IA/SA) have no safety design basis. This change does not affect the ability of the IA system to supply air to safety related air users at the required pressure, flow and quality. A compressed air system failure has no effect on the safe shutdown capability of air operated valves in ESF systems, as these valves are

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EER Number	Description	Safety Evaluation Summary
89-RF-002	This EER accepted replacing a 5 ton cask handling monorail hoist with a 7 1/2 ton capacity hoist due to the need for excessive maintenance and reduced operator confidence in hoist reliability and safety.	designed to fail safe on loss of air (UFSAR 9.3.1.2). This EER did not introduce an unreviewed safety question. The original function of the hoist/trolley system is maintained. This action has no adverse effect upon any quality related structures, systems or components identified in UFSAR Section 3.2. It is a design equivalent change which does not affect the operability of the system and does not increase probability of a design basis accident previously evaluated.
89-SC-012	This EER accepted replacing two 90 degree elbows with capped tees, increasing fitting wall thickness by using a higher number pipe schedule, and changing pipe fitting material to a corrosion resistant low-alloy steel. All the components are located on the Blowdown Flash Tank in the Turbine Building.	This EER did not introduce an unreviewed safety question. The Blowdown Flash Tank, Feedwater Heaters, and SC System are safety classified as NQR. There is no equipment important to safety that can be affected by the changes. The changes do not introduce any new failure modes to the system. The components' functions remain the same after the proposed changes, and the system operation is not modified.
90-AF-026	This EER accepted allowing the use of manufacturer upgraded trip tappet and tappet guide in the Auxiliary Feedwater Pump Turbine Mechanical Overspeed Trip mechanism.	This EER did not introduce an unreviewed safety question. This change is an upgrade to the parts which increases the reliability of the mechanical overspeed trip mechanism to perform its function. The use of these parts does not affect the form, safety, fit or function, and environmental and seismic qualifications of the turbine are not affected.
90-AS-012	This EER accepted making changes to the Large Auxiliary Boiler on the front and rear wall retubing with a redesigned centerline membrane installation to repair several tube cracks and help alleviate unequal stresses during heatup and cooldown of the boiler.	This EER did not introduce an unreviewed safety question. The Auxiliary Boiler has no nuclear safety basis and is not mentioned in the Technical Specifications or described in the UFSAR. The new membrane design on the tube centerline helps equalize tube stresses during temperature changes and thereby helps eliminate tube cracking problems.
90-CD-002	This EER accepted changing the automatic control features on	This EER did not introduce an unreviewed safety question.

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	the Condensate Pump A, B and C mini-flow bypass controllers from proportional plus reset with high batch switch action to proportional control action only, to help remedy bypass flow loop instability.	This change does not affect the design concept of the system. (The new controllers have the same model numbers, only with different control action.) Probability of the condensate pump bypass valves going open during normal plant operations is not increased, since only the controlling action of the controllers is being changed.
90-CW-027	This EER accepted adding new guard rails around the valve pit on the east side of cooling tower "B" for all three units for personnel safety and protection as required by OSHA.	This EER did not introduce an unreviewed safety question. The new guard rails are NQR, and they have no physical interface with safety related systems or components. Therefore, the margin of safety is not reduced.
90-DG-059	This EER accepted allowing existing 1" Dresser check valves in the Diesel Generator Starting System to be replaced with Kerotest valves.	This EER did not introduce an unreviewed safety question. The replacement check valves still prevent loss of air from the pressure storage tank in the event of a pipe break. The fit, form and function of the existing check valves remain unchanged, and probability of a malfunction of equipment important to safety is not increased.
90-ED-024	This EER accepted changing piping material from carbon steel to stainless steel for the 12" piping on the extraction drain lines from the high pressure turbine to the 6A&B and 7A&B feedwater heaters to reduce susceptibility to erosion/corrosion.	This EER did not introduce an unreviewed safety question. All components involved are Quality Class-NQR and non-safety related, and they perform no safe shutdown functions. This is a design equivalent change which meets the original design specifications. It has had a stress analysis performed and meets the design criteria.
90-EW-012	This EER accepted providing an alternate gasket material for pipe class HBCB, specifically Flexitallic Flexicarb WR gasket material or cut gaskets.	This EER did not introduce an unreviewed safety question. Since this change specifies an alternate gasket material, the form, fit and function remain the same, and the flange design loads with the graphite gasket material are equal or lower than the current spiral wound gasket. The graphite material is highly compatible with the existing materials at PVNGS and the environments it may experience.

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90-FB-055	This EER accepted providing APS fire break detail with Dow Corning No. 3-6548 silicone foam for use when a CT Gypsum fire break detail requires a repair. This will lift rework restrictions since CT Gypsum material is not available onsite, and craft are most trained in its installation.	This EER did not introduce an unreviewed safety question. This action has no adverse effect on any quality related structures, systems or components identified in UFSAR Section 3.2. It is a design equivalent change which does not affect the passive function and operability of the fire break.
90-FP-017	This EER accepted using Alison Controls A-12000 series ionization detectors even though some of the detectors are missing their covers.	This EER did not introduce an unreviewed safety question. The use of detectors without covers does not increase the consequences of an accident, since the detectors provide an early warning and automatic actuation of the suppression system. Operability is not affected, and the detectors still function as designed. They do not pose any affect to the quality equipment structure M650-929.
90-FP-078	This EER accepted replacing the existing Halon 1301 cylinder pressure gauge isolation valve for the fire protection systems for the Remote Shutdown Rooms with a valve which is considered to be less susceptible to leakage.	This EER did not introduce an unreviewed safety question. It is a design improvement where the valve's susceptibility to leakage is minimized, if not eliminated, and its fit, form and function remain the same. The Halon 1301 fire protection systems for the Remote Shutdown Rooms are provided with alarms to notify operators; also for back-up systems, portable fire extinguishers and waterhose connections are in the immediate area. Probability and consequences of a malfunction of equipment important to safety is not increased.
90-GA-022	This EER accepted replacing the local pressure gauge for Service Gas (N2 and H2) system from U.S. Gauge model P602 to 3D Instruments model 25502-25B51 to withstand vibration and pressure surges.	This EER did not introduce an unreviewed safety question. The replacement pressure gauge is non-safety related and is similar to the existing gauge in pressure range and physical configuration. It will operate in the Service Gas system in the same manner as the existing pressure gauge, and will not impact the functional or operational mode of the equipment.



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EER Number	Description	Safety Evaluation Summary
90-HA-005	This EER accepted replacing existing exhaust fan frame members with structural steel angles and existing frame rubber mounts with solid steel ones to resolve high vibrations of exhaust fans in the Auxiliary Building.	This EER did not introduce an unreviewed safety question. While the existing exhaust fan base design changed, the form, fit and function of the base frame remain the same. These exhaust fans are quality classified as NQR, non-safety related.
90-HA-022	This EER accepted replacing existing prefilters in the 13M-HAN-J01A&B Air Filtration Units (AFUs) with either AAF Varicell II filters or Farr RIGI-FLO filters, which offer superior performance.	This EER did not introduce an unreviewed safety question. These AFUs are NQR and are not required for safe shutdown or to mitigate any accident. The filters are located inside a closed filter housing on the roof of the Auxiliary Building. Any physical damage to, or caused by, the new prefilters would be contained within the housing. Therefore, safety analysis performed in UFSAR Chapter 15 remains valid and probability of an accident remains unchanged.
90-HA-025	This EER accepted repairing holes in the blower of the Auxiliary Building normal air handling unit by using sheet metal patches (as detailed on drawing M598-4506-1).	This EER did not introduce an unreviewed safety question. This equipment is non-safety related and is not required to be operable during any accident scenario as evaluated in Chapter 15 of the UFSAR. The non-essential HVAC system is NQR. Possibility of radioactive releases into the environment due to failure of the Auxiliary Building non-essential HVAC system is prevented via the closing of backflow dampers. Also, the repair of the blower unit does not change the function of the blower or the Auxiliary Building normal HVAC system.
90-IA-021	This EER accepted installing an elbow between the filter and silencer in nine instrument air (IA) compressor inlets, to orient the filter horizontally and make it possible to change out the filter element in a quick and efficient manner. [Site Mod 1,2,3-SM-IA-004 installed intake silencers between the intake filter and compressor, which	This EER did not introduce an unreviewed safety question. It does not alter any UFSAR description which defines or details activities or controls over functions, tasks, reviews or tests. It does not degrade the adequacy of structures, systems or components which function to prevent accidents. The IA System is not quality related, there is

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90-MA-032	relocated the filters and eliminated necessary clearance required to change filter elements in the normal fashion.] This EER accepted replacing a flow switch (2JMANFSL0028) with a new flow switch which has the correct part number but also has an extra lead, which should go to case ground.	no discernible impact on nuclear safety, and it is not included in the accident analyses of the PVNGS UFSAR. This EER did not introduce an unreviewed safety question. The hydrogen detection system is HQR and not involved with any safety related equipment or part of the primary system. It samples the atmosphere at the generator/isophase termination enclosure. Failure modes involved in the flow switch wiring could make the flow switch inoperable, but the sample point is backed up by another channel. The panel annunciates on a low flow condition on any channel. The design equivalent makes personnel and equipment less susceptible to fault currents, thus decreasing probability of an initiating event to a previously evaluated accident in the UFSAR Chapter 15.
90-PH-017	This EER accepted replacing the discontinued General Electric Ground Fault Relay (GFR) with a Westinghouse GFR.	This EER did not introduce an unreviewed safety question. The replacement GFR meets the same design requirements as the original GFR, operates within the same design limits, has the same overall system performance, and has been seismically and environmentally tested in accordance with the requirements of IEEE 323 such that it is compatible with the locations in which it is placed.
90-QK-017	This EER accepted replacing plastic standoffs which are no longer available through the vendor with metal fabricated standoffs in fire detection panels.	This EER did not introduce an unreviewed safety question. This material substitution is over and above the original strength of the plastic standoff. Panel performance is not degraded by using the fabricated standoffs, thereby decreasing probability of an initiating event to a previously evaluated accident in the UFSAR. This design equivalent makes the equipment less susceptible to damage during seismic events and preventive maintenance.
90-QM-016	This EER accepted adding Raychem splice connection kits to	This EER did not introduce an unreviewed safety question.

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	heat tracing circuits to permit maintenance on equipment.	The addition of the splice connection kits does not change the function of the non-safety heat trace circuit, located on the non-safety liquid radwaste system (neither of which is safety related). The terminations added by addition of the splice connection kits are typical terminations in the facility.
90-RD-010	This EER accepted removing the existing butt welded pipe cap on radwaste drain lines to install blind flange connection with spiral wound gasket for easier periodic radwaste drain lines maintenance clean-out.	This EER did not introduce an unreviewed safety question. This modification saves time and money, and reduces radiation exposure by avoiding unnecessary pipe cutting and rewelding during maintenance cleanup of radwaste buildup. It does not alter the function, operation or operability of the equipment and floor drainage systems. However, the system will be more reliable since maintenance down times will be reduced. Also, the changes do not involve interactions with any safety related systems, structures or components.
90-RJ-032	This EER accepted replacing Plant Monitoring System (PHS) Large Core Storage power supplies manufactured by either EMM or Todd with design equivalent power supplies manufactured by Pioneer Magnetics, due to the former models no longer being available.	This EER did not introduce an unreviewed safety question. The PHS is a non-safety related monitoring system that is neither capable of causing, nor required to mitigate, accidents of the type described in the UFSAR. And, since the design of the replacement power supply is equivalent in form, fit and function to the design of the existing power supply, the design of the PHS is unaffected by this change.
90-RK-005	This EER accepted adding a diode to the pushbutton input to the 1E annunciator input to allow the flasher reset pushbutton to silence the audible horn.	This EER did not introduce an unreviewed safety question. It will eliminate the need for frequent operation of the alarm knowledge switch, which leads to the possibility of disabling the audible horn if operated in the incorrect sequence. The diode to be installed is of the same type and quality class as the other diodes used in the 1E annunciator system. The only safety function of this annunciator is to alert the operator to operational occurrences for which no



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90-RK-011	This EER accepted connecting the power supply return on the 308338 card to common, due to pin 8 of integrated circuit U6 not being grounded per manufacturer recommendations.	specific automatic operation of a safety system is required. This EER did not introduce an unreviewed safety question. It improves the SESS system, as it is a monitoring system which informs the operator of the status of safety systems, and it has no control functions. The addition of a ground does not provide additional failure modes for the circuit. The safety function of this circuit card is to maintain its physical integrity in a seismic event.
90-RK-012	This EER accepted replacing the Sequence of Events Recorder (SER) printer due to its being obsolete and requiring expensive replacement parts to maintain operability.	This EER did not introduce an unreviewed safety question. The SER is a NQR system. Since the SER does not interfere with equipment important to safety (QAG), probability or consequences of a malfunction of equipment important to safety is not increased or affected in any way. Since the new printer will increase SER reliability, it may help mitigate probability or consequences of a future accident by providing reliable sequence of events information.
90-SB-002	This EER accepted changing the mounting hardware configuration for the Data Acquisition System modules to the Auxiliary Protective cabinet rack to utilize non-locking clip nuts and screws to secure the DAS chassis.	This EER did not introduce an unreviewed safety question. The functional requirement for the CPC/CEAC is not changed. Threads will not strip, and screws can carry seismic loads without failure. Also, the equipment's seismic qualification would be maintained during a safe shutdown earthquake.
90-SC-016	This EER accepted installing maintenance flanges on the suction and discharge headers of the Condensate Demineralizer Acid Addition pumps to allow the removal of one pump for maintenance without having to unbolt the header on the other pump.	This EER did not introduce an unreviewed safety question. The affected portion of the Condensate Demineralizer System has no safety related function. This action does not involve any quality related structures, components and/or systems as described in UFSAR Section 3.2.
90-SC-062	This EER accepted modifying the existing dial scale of the Blowdown Flash Tank Level Indicating Controller by	This EER did not introduce an unreviewed safety question. The affected portion of the Condensate Demineralizer System

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90-SC-065	Installing a scale corresponding to the actual measured process range of 33" to 129".	has no safety related function as described in UFSAR Section 10.4.6. It also does not involve any quality related structures, components and/or systems as described in UFSAR Section 3.2. Also, changing the scale of this NOR instrument does not change any interfaces that exist between this system and the rest of the plant.
90-SF-042	This EER accepted replacing Condensate Demineralizer System Hill McCanna Resin Inlet and Outlet valves with new Style valves of the same manufacturer. The old valves are uneconomical to repair, and the valve design has been modified slightly by the manufacturer.	This EER did not introduce an unreviewed safety question. The affected portion of the Condensate Demineralizer System has no safety related function as described in UFSAR Section 10.4.6. This action also does not involve any quality related structures, components and/or systems described in UFSAR Section 3.2.
90-SG-181	This EER accepted modifying the CEDM upper and lower gripper magnet assemblies by shortening the magnetic gap that must be closed for the grippers to engage the CEA drive shaft, which helps reduce incidence of "sticky grippers" and subsequent rod drops.	This EER did not introduce an unreviewed safety question. No change is made to the original fail-safe design of the CEDM, and the CEDM grippers play no part in accident mitigation. The modification has no effect on the CEDM Control System itself, so there is no increase in probability of an uncontrolled CEA withdrawal. It also has no effect on the mechanical connection of the CEDM to the reactor vessel closure head, so there is no effect on probability of a CEA ejection. Also, there is no effect on the drop time of the CEAs, so there is no effect on consequences of a decrease of reactor coolant accident.
90-SG-196	This EER accepted installing a threaded plug in the bonnet of lower feedwater control valve 3JSGNFV1122.	This EER did not introduce an unreviewed safety question. The additional stresses to the bonnet caused by the injection hole do not impair the pressure retaining function of the valve. This modification does not alter the form, fit or function of this valve, and the feedwater control valve is not required for safety.
90-SG-196	This EER accepted redrilling holes in the pipe support	This EER did not introduce an unreviewed safety question.

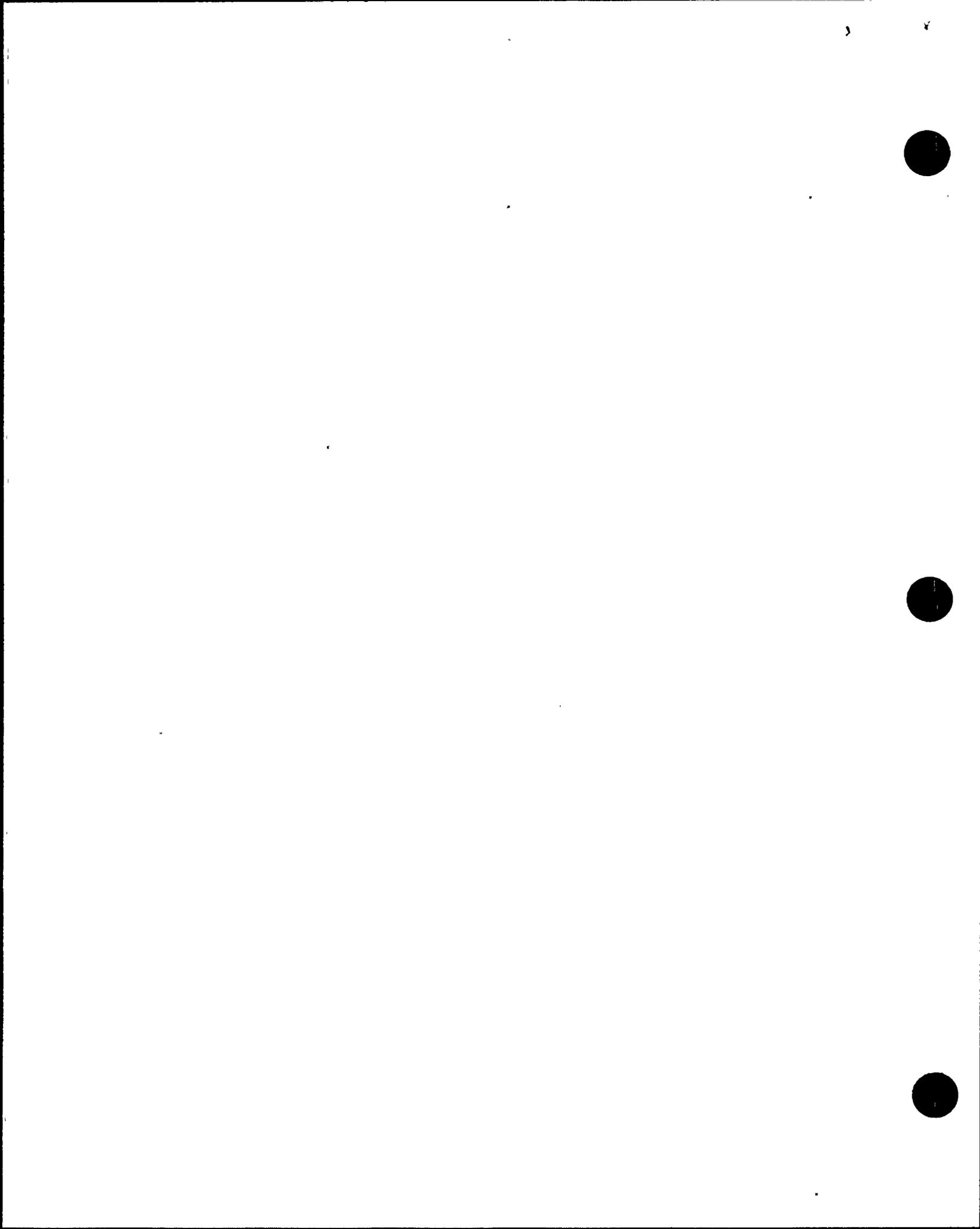


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	bracket, drilling out tapped holes in the air regulator body, and using bolts and nuts for regulator assembly and mounting of air regulators for MSIVs and FWIVs to remedy air leakage at the air regulator flanged joint.	The air regulator is quality classified as NQR. Its form, fit and function remain the same. Air regulator failure due to air leakage at the flanged joint is eliminated. The regulator has no safety function and is not addressed in any detail in the UFSAR.
90-SK-027	This EER accepted replacing degraded (due to high radiation levels) G.E. model #TE-44ASA cameras in the Containment Building with Arvin Diamond model #LN-8 cameras.	This EER did not introduce an unreviewed safety question. The new cameras are non-quality related and not required for safety. The installation does not alter the operation of the QF system; therefore, response and reaction to plant conditions does not change. System response and reaction to emergency conditions remain as addressed by UFSAR and the Security Plan.
90-SQ-006	This EER accepted welding a 1/4" flat bar on the gas chamber front plate for the gas canister retainer assembly mounting on the Condensor Vacuum Pump/Gland Seal Exhaust (CVSE) Monitor due to a stripped bolt hole.	This EER did not introduce an unreviewed safety question. The change is a mechanical design improvement which eliminates the problem with stripped tapped holes. It does not affect the instrument's fit, form and function. The CVSE monitor samples the gases removed by the vacuum pumps and gland seal condensers; all of this equipment is non-safety related.
90-SS-023	This EER accepted permanently removing rear doors to panel JSSNE01 in all three units to eliminate a potential safety hazard, and consequently adding a personnel barrier to limit access to the back of the panel.	This EER did not introduce an unreviewed safety question. The function and operability of the panel are not affected. Probability of a design basis accident previously evaluated in the UFSAR is not increased. This action has no adverse effect upon any quality related structures, systems or components, so the probability of a malfunction of equipment important to safety is not increased.
90-XE-012	This EER accepted using the NQR wire with PVC jacket installed in the power block on a "use as is" basis, despite its non-conformance with the UFSAR commitment that all cables meet IEEE 383-74 requirements.	This EER did not introduce an unreviewed safety question. The material's use is restricted to NQR service applications with no impact on safety related, safe shutdown systems. There is no impact upon the UFSAR regarding the issue of

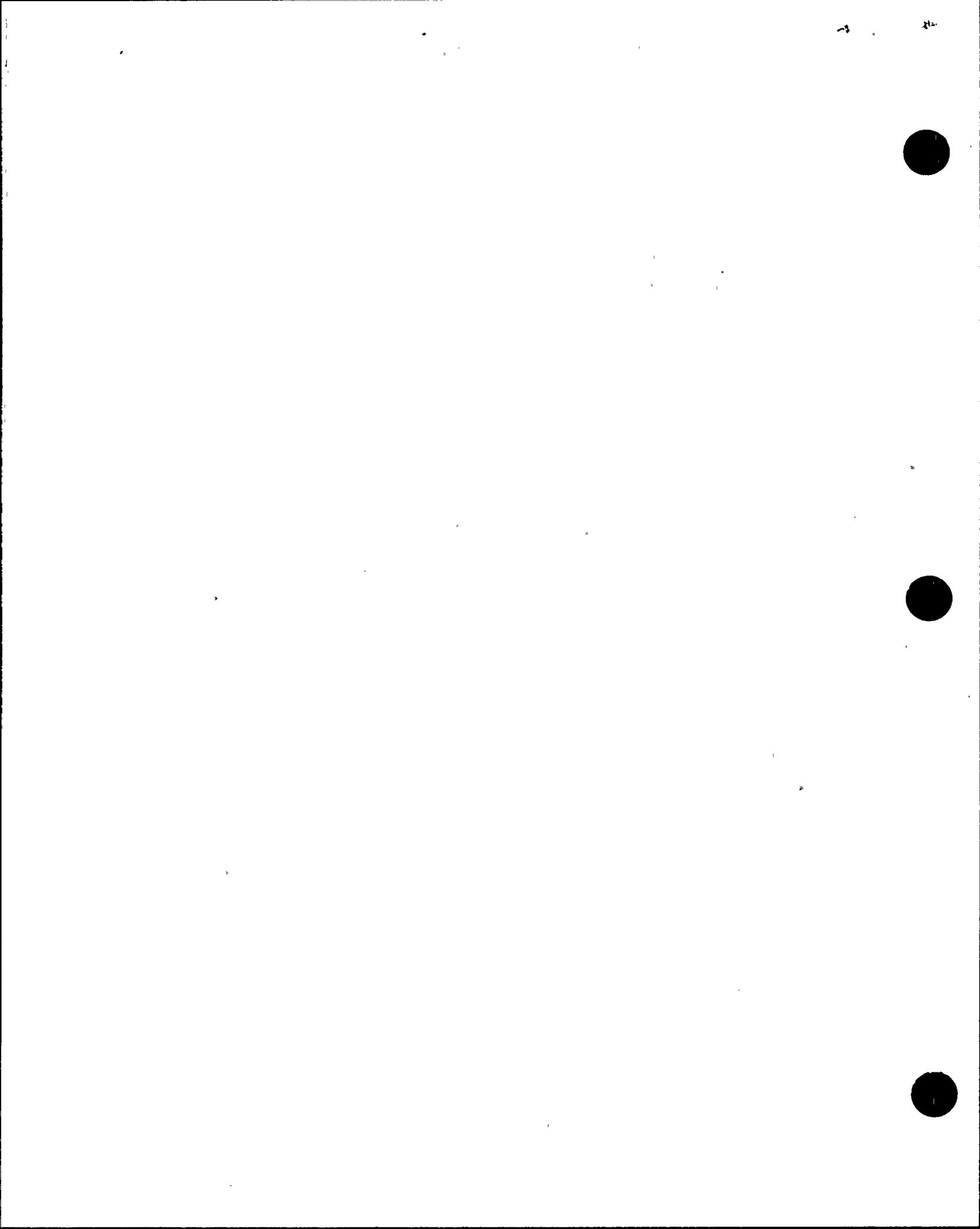
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90-XM-044	This EER updated Specification 13-PN-204 by adding Attachment 32, which provides engineering criteria for the use of freeze seal plugs in accordance with industry standards, deleting Attachment 25 to remove procedural steps from the Specification, and superceding SCH 12 (to remove any reference to Attachment 25).	flame retardancy of the non-conforming material and its effect on the plant. This EER did not introduce an unreviewed safety question. The only equipment malfunction associated with piping is pipe ruptures, which have been previously analyzed. The use of freeze seal plugs does not affect active equipment. Passive freeze seals are applied to passive piping, and therefore do not affect the operation of active equipment, and thus do not potentially affect its operation. The application of freeze seal plugs does not have a detrimental effect on the pipe wall material and therefore does not reduce its strength.
90-XM-047	This EER accepted increasing the diameter of the hole in the HVAC ducts under the Ventlok test holes from 5/8" to 7/8" to allow for insertion of larger diameter probes during HVAC system testing.	This EER does not introduce an unreviewed safety question. Neither the sealing integrity nor the pressure integrity of the Ventlok test hole is compromised by this change. The change has no impact on the mounting mechanism of the Ventloks to the HVAC duct, and an increase in the size of the hole underneath the Ventlok test holes has no impact on HVAC systems capability to maintain design temperature. The HVAC will perform its function as required during an accident to deliver air supply to designated systems/areas for safe shutdown of the plant.
90-ZA-068	This EER accepted modifying the existing "hatch cover" access barrier at 100'-0" elevation of the Auxiliary Building to enhance personnel safety.	This EER did not introduce an unreviewed safety question. The original function of the component, Auxiliary Building essential ventilation control, is maintained. The access barrier has no significant structural impact upon this Q-class building. Also, it has no physical interface with any other quality related structure, component or system identified in UFSAR Section 3.2.
90-ZC-102	This EER accepted adding a stopper to keep the handwheel on	This EER did not introduce an unreviewed safety question.



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	the shaft and an additional door pull handle to the missile resistant fire door.	It does not alter any of the operational, maintenance or testing functions associated with missile protection in accordance with UFSAR Section 3.5, and has no adverse effects on any quality related structures, systems or components in UFSAR Section 3.2. The missile door handwheel stopper has been designed to maintain the original function of the component.
90-ZF-026	This EER accepted redesigning the lift beam (in all three units) used for the removal and installation of the spent fuel transfer gate located at the 140'-0" elevation to the Fuel Building. This will remedy it being necessary to use extra rigging (due to differences in measurements) which increases chances that loose rigging may fall into the spent fuel pool.	This EER did not introduce an unreviewed safety question. This action has no adverse effect on any quality related structures, systems or components in UFSAR Section 3.2. The new lift beams are load tested to 150% of the load required per NATH #30AC-OMP13. They do not alter any operational, maintenance or testing functions associated with the removal/installation of the spent fuel transfer gate.
90-ZR-005	This EER accepted adding door closers to doors A-108 and A-109 in the Auxiliary Building to assure the doors self-close after use and to minimize damage to doors and frames due to increased usage.	This EER did not introduce an unreviewed safety question. This is a design equivalent change which enhances the original installation with no adverse impact upon door safety, form, fit or function. These doors are not connected to, nor are they located in the proximity of, safety related equipment. The doors' new condition enhances operation of the doors and frames.
90-ZR-008	This EER accepted adding a lockset and pull plate on door R-111 in the Radwaste Building to improve the control of radioactive material.	This EER did not introduce an unreviewed safety question. The change is compatible with existing door installation and does not affect the form, fit, function or original design of the existing door. This action is not quality related or necessary for system or plant operation and does not change any system in the Technical Specifications. The changes are performed on systems and components classified as "non-nuclear safety" or "not applicable to safety classification."



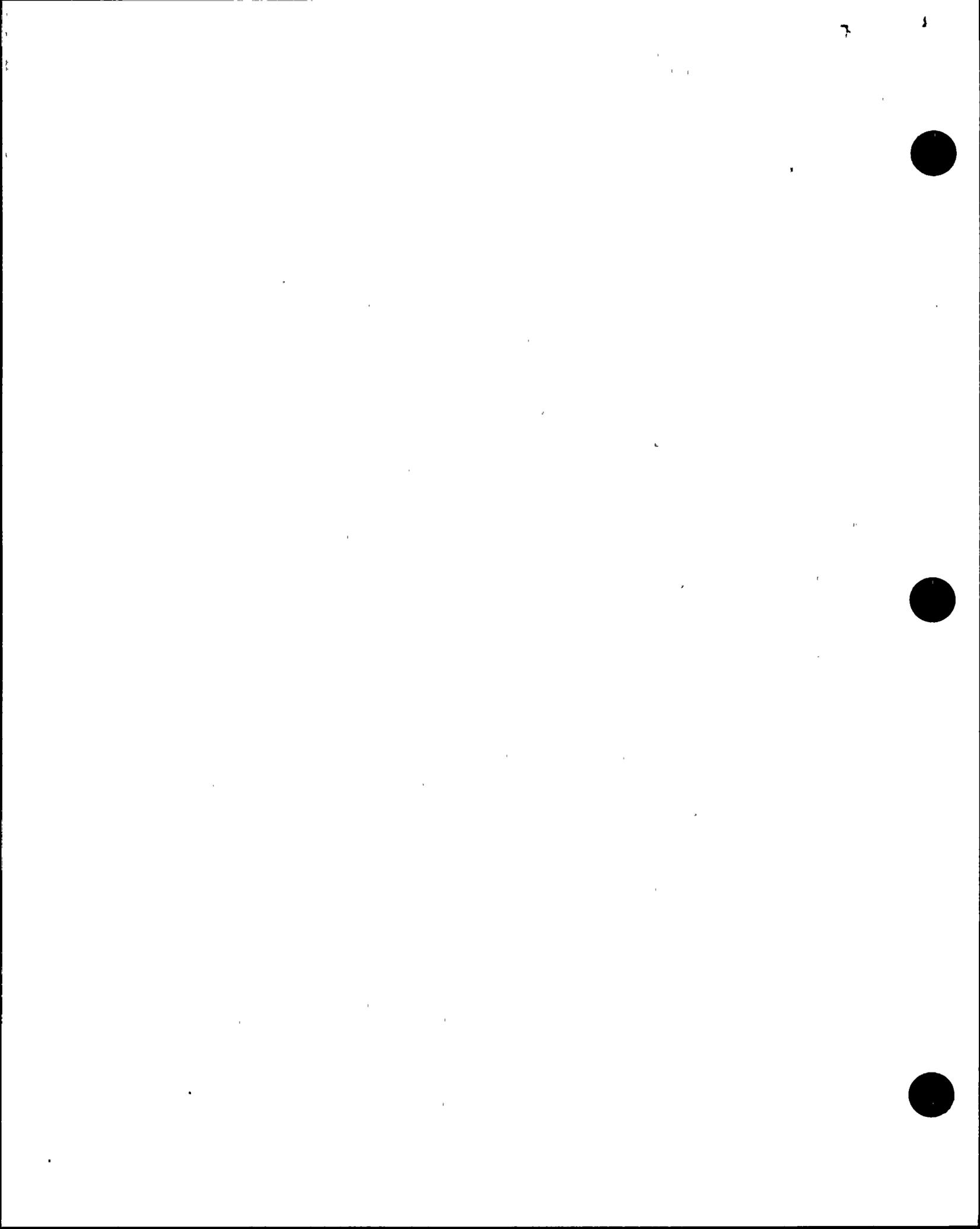
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90-ZZ-014	This EER accepted evaluating the ramifications of installing old Hilti-Kwik bolts in holes drilled with new Hilti drill bits. The new drill bits may produce a larger hole with potential reduction in anchor bolt strength when the old bolts are used.	This EER did not introduce an unreviewed safety question. The installation and testing of anchor bolts in the Unit 2 Turbine Building base slab is NQR and does not affect any other structure, system and/or component needed for plant operation and/or safe shutdown. Additionally, the structural integrity of the slab is not compromised whatsoever.
91-AF-007	This EER accepted adding jacket bolts to the AFA-K01 turbine governor valve body to facilitate removal of the valve bonnet for periodic inspections.	This EER did not introduce an unreviewed safety question. The addition of the jack bolt holes has no impact on probability of an auxiliary feedwater train related component failure, due to the location of the holes having no impact on the valve's operation. The holes have no active design requirement or function for operation of the governor valve or turbine.
91-CD-006	This EER accepted replacing three way manifolds and valves used with the sensing lines for the condensate miniflow valve control loop with identical components which are designed to handle negative pressures.	This EER did not introduce an unreviewed safety question. The new valve and manifolds have the same function as the ones being replaced and do not affect the design of the system. This change does not increase probability of the condensate pump bypass valves going open during normal plant operations (worst case failure,) since only the controlling action of the controllers is changed.
91-CD-011	This EER accepted repairing the structural pipe brace member in the main condenser waterbox 2B inlet, which was damaged due to coating failure and subsequent corrosion.	This EER did not introduce an unreviewed safety question. The main condenser serves no safety function and has no safety design bases. The brace repair does not change, degrade or prevent actions described or assumed in any accident discussed in the UFSAR, but instead restores complete structural integrity to the waterbox.
91-CH-011	This EER accepted replacing the existing cartridge type oil filter assembly on all Charging Pumps in the three units	This EER did not introduce an unreviewed safety question. The fit, form and function of the oil filter assemblies and



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91-CH-039	with one that has a spin-on type filter element. It also introduced flexibility in the filter discharge side tubing, to take up inaccuracies in tubing cut-length at installation by adding tubing bends and/or helical wound tubing section. Both are intended to eliminate oil leaks. This EER accepted replacing Charging Pump Lube Oil Low Pressure switches PSL 0246/7/8, model 238, with model 266 which has a higher pressure range, due to the former switches failing due to overload.	The Charging Pumps remain the same. Additionally, safety is improved since leakage at the assemblies and associated fittings is eliminated. Possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created. This EER did not introduce an unreviewed safety question. Aside from the difference in pressure range, the new switches are identical in form, fit and function to the replaced switches, and thus it enhances the operability of the charging pumps. The change in setpoint and reset point as a result of this design equivalent change does not introduce a malfunction not bounded by the scenario evaluated in the UFSAR, Section 15.5.2. The use of high rupture pressure bellows also does not affect operability of any of the charging pumps.
91-CH-045	This EER accepted using Borg-Warner check valve 316FCB1-002 as a replacement for Borg-Warner check valve 81630.	This EER did not introduce an unreviewed safety question. The replacement valve consists of the same material as the existing valve and is consistent with design requirements (i.e., pressure, temperature). Because the replacement is functionally equivalent to the existing valve, probability of a malfunction of equipment important to safety is not increased.
91-CH-056	This EER accepted allowing the use of Valspar coating V 13-F-12 inside of containment. This provides a substitute coating containing low volatile organic compounds (VOCs) that can be applied at the manufacturer's facility, since coatings with high VOCs are restricted in California.	This EER did not introduce an unreviewed safety question. Valspar V 13-F-12 is an inorganic zinc coating which meets the VOC requirements of the California Air Quality Management District, passes the Design Basis Accident test, and is approved for use inside of containment. It has been evaluated as suitable to withstand a postulated design basis accident environment, and provides reasonable assurance that the coating system will not degrade the operation of engineered safety features by delaminating, flaking or



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91-CH-061	This EER accepted replacing solenoid valves rated at a maximum differential pressure of 60 psid with same manufacturer (ASCO), different model solenoid valves rated at 160 psi, to withstand possible subsection to full Instrument Air System (IAS) pressure of 125 psi.	peeling. This EER did not introduce an unreviewed safety question. This change brings the solenoid valves back within their design to meet the failure mode of 125 psid by upgrading their MOPD rating above the IAS maximum pressure. Thus, probability of a malfunction of equipment important to safety is actually decreased. Even if the regulator were to fail, the solenoid valve would operate properly to close or open the pneumatic valve as required. This change does not affect the function of the valves, nor does it cause the valves to exceed required stroke times.
91-CH-077	This EER accepted installing plugs in the drain and vent ports of the boric acid makeup pumps' (BAMPs) mechanical seal housing to allow the throttle bushing to restrict leakage of fluid from the seal housing due to seal leakage/failure.	This EER did not introduce an unreviewed safety question. The plugging of the ports is within the design intent for the pumps and in no way affects the normal or emergency operation of the pumps. The plugs actually decrease consequences of a malfunction since in the event of a seal failure, the throttle bushing will restrict leakage and not allow it to run out of the vent or drain ports.
91-CW-005	This EER accepted removing an exterior louver that has corroded at Unit 1, Tower 1, and installing galvanized sheet metal or steel to prevent tripping and decrease air flow through the deck.	This EER did not introduce an unreviewed safety question. The structural integrity and operation of the tower are not affected by this installation. The CW system does not interfere with systems identified as important to safety or systems required for safe shutdown. System operation and response are unchanged.
91-CW-011	This EER accepted installing a Flexibox driveshaft at cooling tower fan 2MCWNA02A due to the imbalance of the existing driveshaft.	This EER did not introduce an unreviewed safety question. Operation of the cooling tower fan and gearbox is not affected by installation of the driveshaft. Since this installation does not alter operation of the system, the response and reaction of the system to plant conditions is not changed. The CW system has no safety design basis, is

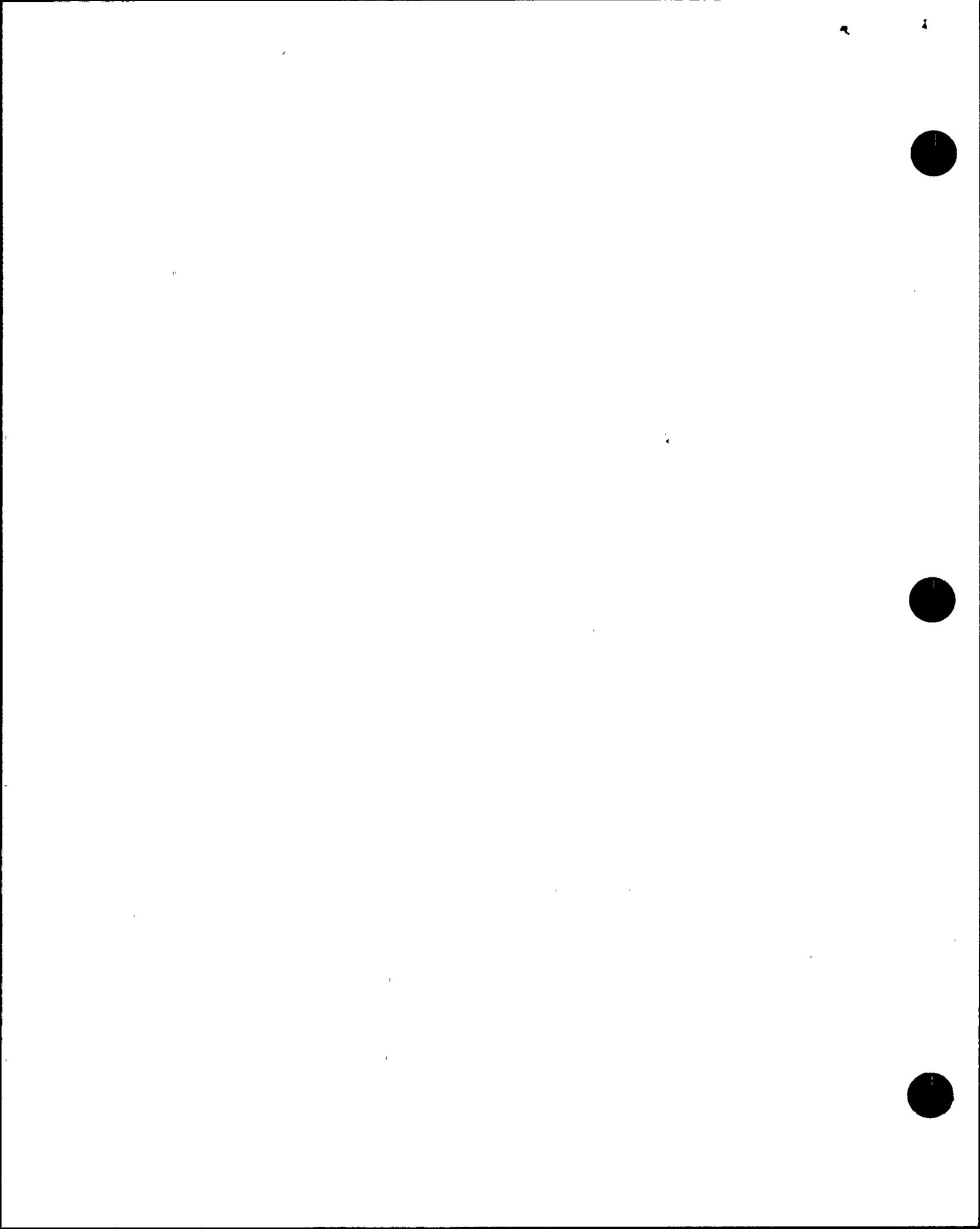
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91-CW-012	This EER accepted installing a Garlock viton pinion oil seal in the cooling tower fan in lieu of the existing CR seal due to the existing seal deteriorating from exposure to oil and wear.	not required for safe shutdown of the plant, and does not interface with systems identified as important to safety. This EER did not introduce an unreviewed safety question. Operation of the system is not altered, and therefore response and reaction of the system to plant conditions does not change. The CW system has no safety design basis, is not required for safe shutdown of the plant, and does not interface with systems identified as important to safety.
91-CW-015	This EER accepted installing a new ZURN cooling tower fan backstop in lieu of the existing backstop, due to the existing backstop's oil reserve leaking oil and the maintenance required to keep it filled.	This EER did not introduce an unreviewed safety question. The installation of the backstop does not affect design, function or operation. The cooling water system has no safety design basis and does not interface with systems identified as important to safety, so there is no change to the probability of, important to safety equipment malfunction. Also, the CW system does not affect any system used to prevent a radiological release to the environment.
91-DG-021	This EER accepted replacing the diesel generator air manifold temperature control air trip valve for equipment tag nos. J-DGN-TV-265/6/7/8 from manufacturer model #4021C11C7 to #4021D23D7 due to incorrect model per original design requirement.	This EER did not introduce an unreviewed safety question. The new replacement satisfies the original design requirement and does not impact the functional or operational mode of the equipment, nor does it create any new failure mechanism. The new temperature control valve is non-safety related and will operate in the system in the same manner as the existing one.
91-DG-069	This EER accepted replacing the diesel generator rocker arm lube oil crossover lines and fittings with new materials of tubing and fitting to eliminate severing during future operations.	This EER did not introduce an unreviewed safety question. Both new and existing materials serve the same operation and function. The new materials provide adequate flow rate and pressure for the system. The design or integrity of the diesel generator lube oil system is not affected by this materials substitution.



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91-ED-001	This EER accepted adding weld material overlay repairs required for piping downstream of the High Pressure (HP) Turbine extraction nozzles in the Turbine Building.	This EER did not introduce an unreviewed safety question. Probability and consequences of an accident previously evaluated in the UFSAR or a malfunction of equipment important to safety is not increased. The subject piping is located on extraction lines from the HP turbine to the 6th and 7th feedwater heaters and are all Quality Class-NQR and non-safety related.
91-ED-006	This EER accepted allowing the use of needled glass fiber insulation in accordance with Specification 13-MM-301 (Thermal Insulation Materials and Their Application to Piping Equipment for PVNGS).	This EER did not introduce an unreviewed safety question. This is a design equivalent change which is not safety related (NQR). The new isolation is equivalent in form, fit and function to the existing insulation, and does not introduce any hazards to the plant. The needled glass fiber felt insulation is functionally equivalent to insulations specified in ASTM C547, C592 standards. Differences in density and thermal conductivity requirements for ASTM standards C1086, C547 and C592 are insignificant.
91-ED-009	This EER accepted permanently removing the reset function of Equipment Drain System level controllers to eliminate the potential of reset winding and subsequent normal flow upset.	This EER did not introduce an unreviewed safety question. This design equivalent change does not involve any quality related structures, components or systems (ref. UFSAR Section 3.2), and the systems under review have no safety related functions as described in UFSAR Section 10.4.6. The required output and the ability of the system to perform or create the desired output have not been adversely altered.
91-ED-013	This EER accepted adding weld material overlay repairs required for extraction drain piping under the High Pressure Turbine extraction nozzles to the 6A&B and 7A&B feedwater heaters.	This EER did not introduce an unreviewed safety question. The subject piping is located on the extraction drain lines from high pressure turbine to the 6A&B and 7A&B feedwater heaters and are all quality class-NQR, non-safety related, and perform no safe shutdown functions.
91-ED-017	This EER accepted weld repairing a leak sealant injection	This EER did not introduce an unreviewed safety question.



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	hole in the valve body of bleeder trip valve 3JEDNBTV0004.	The bleeder trip valves serve no safety function and have no safety design bases. Weld repair of the bleeder trip valve body does not increase probability of a turbine trip or radiological consequences of any accident evaluated in the UFSAR. The turbine is orientated such to preclude the possibility of a missile generated from a turbine overspeed impacted upon important to safety or safety related components.
91-ED-020	This EER accepted installing a diaphragm to be seal welded in place between the valve body and cap to prevent continuous leaking problems. The valve internals have long since been removed, eliminating the need for repeated repairs.	This EER did not introduce an unreviewed safety question. The valve is not connected or involved in any way with safety equipment. A turbine trip, the most limiting accident in which this valve would be involved, remains a non-event due to the fact that the valve internals have been removed.
91-ED-028	This EER accepted replacing the high pressure bellows with a standard bellows in positioners 1,2JEDNLV603/4 to allow the valves to be short stroked to 3 1/2" from 6".	This EER did not introduce an unreviewed safety question. These valves are not connected or involved in any way with safety equipment. Heater isolation is the only possible accident that can result in which the valve is included, and consequences of this due to inoperation of the high level dump does not change following replacement of the bellows.
91-FB-008	This EER accepted sealing penetration number 433/04 with ANPP Detail A-16, full depth of the barrier for radiation streaming.	This EER did not introduce an unreviewed safety question. Probability of an accident previously evaluated in the UFSAR and/or malfunction of equipment important to safety is not increased, because the change does not adversely affect the passive function and operability of the penetration seal. Installation of the A-16 seal enhances the passive feature of the radiation barrier.
91-FH-004	This EER accepted moving the refueling machine RTMZ limit switch actuator bracket to 50' 9 1/8" east of reactor core centerline, which maintains adequate clearance to perform	This EER did not introduce an unreviewed safety question. This action allows the refueling machine to be closer to the upender during upender operation without allowing



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	functions of the design bases and saves considerable time during refueling.	interference. This limit switch is not involved in hoisting the fuel assemblies; therefore, its movement does not increase probability of dropping or mispositioning a fuel assembly. Although the new location of the RTMZ limit switch actuator does not prevent the mast from hitting the west wall of the refueling pool, the mast bumper ring remains in place and prevents any damage to fuel or equipment should the mast hit the wall.
91-FH-007	This EER accepted installing a permanent quick disconnect wiring harness in the CEA Change Platform Control Console for a load simulator.	This EER did not introduce an unreviewed safety question. This change only affects the load weighing circuit of the CEA change platform, which has no effect on a dropped fuel assembly. A failure of the load weighing circuit imposes no radiological consequences from possible damage to a CEA or ICI. Also, the design and function of the circuit is unaffected during operation and calibration periods.
91-FH-008	This EER accepted installing a permanent quick disconnect wiring harness in the Refueling Machine Console for a load simulator.	This EER did not introduce an unreviewed safety question. During operation the load circuit continues to function as designed, and during calibrations, the load simulator can be installed without lifting leads. Previously evaluated conditions and results of fuel handling accidents remain valid.
91-FH-009	This EER accepted installing a permanent quick disconnect wiring harness in the Spent Fuel Handling Machine's power center panel for a load simulator.	This EER did not introduce an unreviewed safety question. During operation the load circuit will continue to function as designed, and during calibrations, the load simulator can be installed without lifting leads. Any failure of the Spent Fuel Handling Machine will have no consequences greater than previously analyzed.
91-FH-010	This EER accepted adding drain lines to the spent fuel handling machine hoist, bridge and trolley speed reducers to improve oil changeout.	This EER did not introduce an unreviewed safety question. During operation, speed reducers continue to function as designed, and during maintenance, oil may be changed with a

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91-FH-011.	This EER accepted installing a drain line to the refueling machine hoist, bridge and trolley speed reducers to improve oil changeout.	reduced possibility of dropping oil in the spent fuel pool. Previously evaluated conditions and results of fuel handling accidents remain valid. The addition of these drain lines in no way has any effect on load weighing/bearing aspects of the spent fuel handling machine. This EER did not introduce an unreviewed safety question. During operation, speed reducers continue to function as designed, and during maintenance, oil may be changed with a reduced possibility of dropping oil in the refueling pool. Previously evaluated conditions and results of fuel handling accidents remain valid. The addition of these drain lines in no way has any effect on load weighing/bearing aspects of the refueling machine.
91-FH-012	This EER accepted adding oil drain lines to the CEA Change Platform hoist, bridge and trolley speed reducers for easier oil draining.	This EER did not introduce an unreviewed safety question. The design and function of the CEA change platform speed reducers is unaffected during operation and maintenance periods by installation of this change. Should a complete or partial failure of the drain lines on the change platform occur, previously evaluated conditions and results of fuel handling accidents remain valid.
91-FH-022	This EER accepted replacing a new fuel elevator drain plug with a drain line.	This EER did not introduce an unreviewed safety question. This change provides a more accessible discharge point for changing oil in the gear reducer during performance or required preventative maintenance tasks. The design and function of the new fuel elevator gear reducer is unaffected during operation and maintenance periods. Previously evaluated conditions and results of fuel handling accidents remain valid.
91-FH-026	This EER accepted replacing the drain plug on speed reducers for the hoist, bridge and trolley drive units of the	This EER did not introduce an unreviewed safety question. It provides a more accessible discharge point for changing

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91-FH-027	<p>refueling machine with a suitable drain line, quick disconnect (or other suitable shutoff device) and a capped end fitting to facilitate oil changeout.</p> <p>This EER accepted replacing the drain plug on speed reducers for the hoist bridge and trolley drive units of the spent fuel handling machine with a suitable drain line, quick disconnect (or other suitable shutoff device), and a capped end fitting to facilitate oil changeout.</p>	<p>oil in the speed reducers during performance of required preventative maintenance tasks. During operation, the speed reducers continue to function as designed, and during maintenance, the oil may be changed with a reduced possibility of dropping oil in the refueling pool. Should complete or partial failure of the speed reducer drain lines on the refueling machine occur, previously evaluated conditions/results of fuel handling accidents remain valid.</p> <p>This EER did not introduce an unreviewed safety question. It provides a more accessible discharge point for changing oil in the speed reducers during performance of required preventative maintenance tasks. During operation the speed reducers continue to function as designed, and during maintenance, the oil may be changed with a reduced possibility of dropping oil in the refueling pool. Should a complete or partial failure of the speed reducer drain lines occur, previously evaluated conditions/results of fuel handling accidents remain valid.</p>
91-FP-004	<p>This EER accepted replacing a NIBCO valve in the Fire Protection (FP) System with a valve manufactured by CRANE.</p>	<p>This EER did not introduce an unreviewed safety question. The replacement is in a NQR portion of the FP system. The new valve is evaluated to be equivalent or better than the original one and meets the design conditions of the original valve. The primary function of the valve is to remain open and maintain pressure integrity; therefore, probability of a malfunction of equipment important to safety is not increased.</p>
91-FP-025	<p>This EER accepted changing ETL wiring to allow for proper operation of the halon system, and to document the wiring for the common dampers.</p>	<p>This EER did not introduce an unreviewed safety question. This design equivalent change actually makes the fire dampers more reliable and work properly when actuated by either halon panel. Since the ETL circuit would be improved, this would not increase probability of a</p>

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91-FW-003	This EER accepted replacing feedwater pumps' seal leakoff line piping between the condenser and restricting orifice with stainless steel piping to prevent failure during operation.	malfunction of equipment important to safety. This EER did not introduce an unreviewed safety question. The material change of the piping improves reliability, as it is more erosion/corrosion resistant than the original carbon steel piping. It is also within stress limits and existing hanger load limits of the piping. Form, fit and function remain the same. The flow, pressure, chemistry and operation of the feedwater pumps' seal system and the feedwater system are not affected.
91-FW-004	This EER accepted replacing the bleed valve on the bonnet of V037-V034 with a Conval globe valve.	This EER did not introduce an unreviewed safety question. The change is NQR, non-safety related, and the form, fit and function of the valve is unaffected. Since the critical characteristics of the existing and replacement valves are considered equivalent in this application, probability of an accident previously evaluated in the UFSAR is not increased.
91-FW-005	This EER accepted the leak seal injection of 1" drain valve 1PFWNV081.	This EER did not introduce an unreviewed safety question. This system and equipment are not quality related and are not addressed in the Technical Specifications. This action does not impact system reliability or operability, as the valve is not used during operational modes. Margin of safety is not reduced.
91-FW-011	This EER accepted installing oil deflector rings and increasing the size of the oil drainage ports on the main feedwater pump bearing housings to prevent bearing seal oil leakage.	This EER did not introduce an unreviewed safety question. This action does not impact system reliability or the lubrication of the bearings. Also, this design equivalent change does not affect performance of the feedwater pump or any equipment important to safety.
91-FW-014	This EER accepted the buildup and repair of the seal lip area of the inboard bearing housing using Belzona Super Metal due to overmachining the bearing housing.	This EER did not introduce an unreviewed safety question. It does not affect the operation of the feedwater pump or performance of the bearings. The response and reaction of

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91-FW-016	This EER accepted leak sealing feedwater vent valve 2PFWNV079.	<p>the system to plant conditions does not change. The feedwater system does not interface with or affect important to safety systems or systems required for safe shutdown.</p> <p>This EER did not introduce an unreviewed safety question. Leak sealing the vent valve does not alter the operation of the system. Response and reaction of the system to plant conditions do not change. The feedwater system has no safety design basis, is not required for the safe shutdown of the plant, and does not interface with systems identified as important to safety.</p>
91-GA-001	This EER accepted changing three components of the Service Gas (GA) System--pressure regulating valve, rupture disc and filter separator--with ones that have sufficient flow and pressure capacities.	<p>This EER did not introduce an unreviewed safety question. The GA System and subject line components are quality classified as NQR, non-safety related, and serve as back-up supply to the Instrument Air System which is also NQR. The components' fit and function remain the same. Form and safety are enhanced since the potential for overpressurization of the components is eliminated.</p>
91-GA-002	This EER accepted using a new model of nitrogen regulator, as recommended by the equipment manufacturer, in place of the original model which is no longer made due to a change in manufacturing techniques.	<p>This EER did not introduce an unreviewed safety question. Equipment important to safety that uses high pressure nitrogen is equipped with dedicated accumulators for nitrogen reserve. Failure of this regulator does not affect this equipment because it is manually charged and isolated when not being charged. The failure mode for the nitrogen supply is not changed with use of this regulator.</p>
91-HA-002	This EER accepted removing interior insulation and its adhesive from ESF equipment and pump room essential air cooling units (ACUs) because of the adhesive's short qualified life for harsh environment/EQ maintenance requirements.	<p>This EER did not introduce an unreviewed safety question. It does not alter the basic form, fit or function of the ACUs. It simply removes insulation glued to the inside of the ACU housing. This change will not alter the manner in which these units perform their design function, will not change the probability of unit failure, and will do nothing</p>

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91-HA-003	This EER accepted changing the model of exhaust register in the east electrical penetration room from a model 23RL to a 13RL, which has less resistance to flow.	to increase consequences of any accidents previously considered in the UFSAR. This EER did not introduce an unreviewed safety question. This change meets the intent of the original design specifications for material and construction. The change is made to the normal portion of the HA exhaust system (vs. the essential portion). Also, HAN-TSH 31 alarms the control room upon temperatures greater than 105F, and the room has an essential air cooler unit if a problem develops with normal cooling. This is a design equivalent change with no adverse effect on safety design bases of UFSAR 9.4.2.1.1.
91-HA-008	This EER accepted repairing tubes in the Auxiliary Building air handling units which were ruptured during freezing conditions, as well as accepting "as is" that some non-repaired tubes may have been slightly enlarged during this event.	This EER did not introduce an unreviewed safety question. This change allows the use of cooling coils which have been slightly damaged. It does not affect maximum allowable space temperatures for the Auxiliary Building. Heat removal capability is not significantly impacted and does not affect equipment important to safety.
91-HA-009	This EER accepted that airflow from the Auxiliary Building Sample Room Fume Hood Exhaust fan is lower than the quantity shown on the floor diagram and system description.	This EER did not introduce an unreviewed safety question. The change does not affect maximum allowable space temperatures for the Auxiliary Building and does not result in an accident frequency changing to a more frequent class. Also, there is no impact on the air balance since the required total flow from all of the fume hoods is at or near the design value.
91-HA-010	This EER accepted that the Auxiliary Building's elevator equipment room supply fan flow is higher than the quantity shown on the vendor design data sheet and system description.	This EER did not introduce an unreviewed safety question. The excess supply is not a problem since the air is expelled to the environment after cooling the equipment. Also, there is no impact on the air balance since this flow is isolated from the remainder of the Auxiliary Building. This change does not affect the maximum allowable space temperatures for



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91-HA-011	This EER accepted that Units 1 and 2 actual flow from the A fan is lower than the quantity shown on the flow diagram and system description.	the Auxiliary Building. This EER did not introduce an unreviewed safety question. There is no impact on air balance, since required total flow from all of the fume hoods is at or near the design value. This change also does not affect maximum allowable space temperatures for the Auxiliary Building. The HA system UFSAR safety design bases are not compromised.
91-HC-001	This EER accepted removing spare pressure switches located in containment penetrations that are not required for monitoring and installing a cap to maintain pressure boundary.	This EER did not introduce an unreviewed safety question. A penetration aperture seal is formed between the header plate and flange by two concentric Viton O-rings. A local leak rate test is performed by pressurizing the region between the O-rings. Failure of the switch allows pressure to be released from this region. Failure of the replacement cap does not, however, affect the integrity of the penetration seal. Thus, consequences of an accident previously evaluated in UFSAR are not increased.
91-HC-003	This EER accepted installing eyebolts and permanently staging a step ladder within the CEDM fan compartments due to personnel and plant safety concerns.	This EER did not introduce an unreviewed safety question. They have been designed to maintain structural integrity during an SSE in accordance with UFSAR Section 3.7. The design configuration is structurally adequate for the intended Seismic Category IX application. The original function of the fan compartments is maintained. This action has no adverse effects upon any quality related structures, systems or components identified in UFSAR Section 3.2.
91-HP-040	This EER accepted removing the soft parts monitoring capability of R1 and R2 in the H2 Analyzer cabinets and venting the reference legs of R1 and R2 to the atmosphere instead of to the soft parts monitoring volume cylinder, due to the soft parts monitoring system interfering with atmospheric reference.	This EER did not introduce an unreviewed safety question. There are no soft parts to monitor in the regulators. The design change to go from soft to hard parts was evaluated and found to be adequate. Also, there is no concern of breaching the containment pressure boundary, as the Neoprene diaphragms were replaced by stainless steel diaphragms which

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91-IA-004	This EER accepted relocating an existing 2" union near J1ANUV77/78/79/80 to facilitate removal of the dryer change valves for maintenance and minimize the potential of impacting the in-service dryer unit.	are not susceptible to leakage or degradation in the manner that the neoprene diaphragms were. The stainless steel diaphragms maintain the pressure boundary with no adverse effects on the H2 analyzers, so their function and operation are unchanged. This EER did not introduce an unreviewed safety question. The Instrument Air (IA) system is NQR and not required to function in an accident. Though IA is supplied to safety related devices, the devices are designed to fail to their safe position on loss of IA. Therefore, relocating the union connection of the existing piping of the NQR IA dryer system does not increase consequences of an accident previously evaluated in the UFSAR.
91-IA-008	This EER accepted exempting the PBM, Inc. model numbers SPE-16 A 1-1/2 and SPE-17 A 2 ball valves from the current valve packing program to allow use of the vendor recommended valve body rebuild kit.	This EER did not introduce an unreviewed safety question. This change does not affect the sealing capabilities of the packing configuration. It simply allows continued use of the manufacturer's specified packing in place of graphite packing specified by Specification 13-PN-220. There is no effect on either probability or consequences of a malfunction of equipment important to safety.
91-LR-010	This EER accepted repairing damaged threads at the joint where a 1/2" seal leak-off line attaches to the 1NLRNP04A pump using Belzona material.	This EER did not introduce an unreviewed safety question. This pump and its seal leak-off line are not safety related and have no safety function. Probability of leakage of radioactive liquid is not increased, since the Belzona repaired threaded joint is as capable of handling non-pressurized seal leak-off flow as the original threaded joint. Any leakage of radioactive material is bounded by the accident described in the UFSAR, Section 15.7.2.
91-LR-017	This EER accepted adding insulation to a length of pipe which connects to the evaporator vapor body. This line	This EER did not introduce an unreviewed safety question. No procedures are affected by this change, no tests or



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	conducts heat out of the vapor body (and was responsible for a personal injury).	experiments will be performed as a result of this change, and the pipe and liquid radwaste evaporator do not have any Tech Specs associated with them. Providing insulation for personnel protection on a hot pipe does not increase probability of leakage of radioactive materials from a system.
91-MA-002	This EER accepted removing the flanges from the existing Isophase Bus Cooling backdraft dampers and installing it on replacement dampers to facilitate installation within the Isophase Bus Cooling ductwork.	This EER did not introduce an unreviewed safety question. The Isophase bus cooling unit is not an essential safety system and is not required for safe reactor shutdown. (However, two 100% capacity redundant blowers and two 100% capacity redundant coolers are provided.) Failure of the Isophase bus cooling system backdraft damper is not postulated to initiate an accident event.
91-MA-003	This EER accepted a firmware upgrade in the CPU of the digital fault recorders as a design equivalent change.	This EER did not introduce an unreviewed safety question. The digital fault recorders are non-class 1E, not related to the safe shutdown of the plant, not important to safety, and have no interface with equipment important to safety. They do not affect any fuel, steam or radiological systems, components, equipment, procedures or testing.
91-MA-005	This EER accepted using the flexible link on the B phase isophase bus connection to the main transformer, even though the flexible link had a tear in the top lamination.	This EER did not introduce an unreviewed safety question. The flexible link is non-class 1E, not related to the safe shutdown of the plant, not important to safety, and not located near any equipment important to safety.
91-MT-005	This EER accepted replacing Dresser valve 2PMTNV225 on the main steam supply piping to MRS "B" with a Conval valve, as the former valve is no longer available from Dresser.	This EER did not introduce an unreviewed safety question. The replacement valve has an ANSI 1500# rating which can withstand higher pressures than the existing API 800# pressure class valve. The change is to piping downstream of the MSIVs and can be isolated at a couple of locations, reducing the consequences of an accident. The components' fit, form and function remain the same after the change.



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91-MT-014	This EER accepted allowing the use of a 1" globe ball valve that is equal to and/or better than the existing globe valve installed as a second stage reheated steam line drain on the main turbine system.	This EER did not introduce an unreviewed safety question. It is an equivalent model change. The affected portion of the main turbine system implemented by this design equivalent change is strictly a non-active component that provides a drain for condensate on a main steam line, and meets the intent of the original design specifications for material and construction.
91-OS-001	This EER accepted fabricating and installing a new larger main lube oil centrifuge feed oil pump shear key, which is required due to the installation of a new oil pump drive shaft supplied by the manufacturer.	This EER did not introduce an unreviewed safety question. The installation does not affect design, function or operation. The OS system has no safety design basis, is not required for safe shutdown of the plant, and does not interface with systems identified as important to safety. Operation of the system is not altered; therefore, response and reaction of the system to plant conditions does not change.
91-PC-011	This EER accepted replacing a 1/2" NPT pipe plug with a 1/2" Swagelok fitting in the fuel transfer flange test port to facilitate hookup of test equipment.	This EER did not introduce an unreviewed safety question. The pressure-retaining ability of the Swagelok fitting/plug assembly is equivalent to that of the original pipe plug. Neither probability nor consequences of a malfunction of equipment important to safety is impacted from this design equivalent change. Also, two barriers to the release of radioactivity (inner "O" ring, Fuel Handling building-side isolation valve PCN-V118) remain intact even if the mechanism for plugging the test port fails and allows the annulus between the inner and outer "O" rings to become exposed to system pressure.
91-PC-012	This EER accepted changing the level of the bottom of the fuel pool skimmer weir to provide operations with flexibility in water level to use the skimmers without running risk of shorting out electrical equipment.	This EER did not introduce an unreviewed safety question. This change lowers elevation of the weir opening to the pool cleanup skimmers to 5", which is above both the low level and low-low level alarms. This change enlarges the weir

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91-PK-009	This EER accepted replacing bolts required for Connector Conversion Kits for 2-GN-13 model batteries with longer bolts of identical bolting material to obtain full thread engagement.	opening in the liner plate so there is no seismic impact. Leak tight integrity is not lost, because only the weir opening is changed, not the skimmer box integrity. This EER did not introduce an unreviewed safety question. Any additional bolt beyond the nut is an unloaded portion of the bolt which does not interfere with any other function of the batteries or battery rack. Also, the additional weight of the longer bolts makes an insignificant impact on the seismic qualification of the battery rack. The bolt replacement does not alter the form, fit or function of any part of the facility.
91-QK-003	This EER accepted relocating smoke detectors from the path of HVAC air flow to prevent nuisance alarm caused by air stream.	This EER did not introduce an unreviewed safety question. The functionality and performance capability of the QK system is not affected by this design equivalent change, which only involves the relocation of the detectors. Probability of an accident or malfunction is not increased. No active safety related functions are added or removed. The change has no interface with any equipment important to safety.
91-QM-003	This EER accepted replacing the damaged heater strips on circuits 3-10-29A/B, associated with non-safety related heat tracing of borated water holdup tank piping, with higher thermal rating heaters.	This EER did not introduce an unreviewed safety question. The change is being implemented within design criteria, construction standards and temperature specifications for heat tracing of holdup tank piping. It is also non-safety related and does not impact any safety equipment or system. Also, slight increase in thermal output rating of the new heater strip has been evaluated and found to have no impact on the ampere rating of the existing circuit breaker.
91-QM-006	This EER accepted replacing the obsolete 20PTV1-M type heater with either the 20QTV1-M type or 20XTV1-MCT type (depending on the operating temperature and maximum	This EER did not introduce an unreviewed safety question. The fit, form or function of the QM system is not affected by this change. It decreases possibility of equipment

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	intermittent temperature of the associated piping).	malfunction by increasing the reliability of the QM system, and probability and/or consequences of an accident are reduced. The heat trace on the affected systems does not have any Technical Specification requirements, and the margin of safety is not degraded.
91-QH-012	This EER accepted replacing the obsolete 20PTV1-M type heat trace heater with the 20QTV1-M type.	This EER did not introduce an unreviewed safety question. The alarm setpoints and temperature setpoints of the affected heat trace controllers are not changed; therefore, operating temperature is not changed. Replacing the heat tracing on the affected heat tracing circuits upgrades the overall system and reduces control room alarms associated with heat trace controllers. The fit, form or function of the QM system is not affected by this change, but reliability is increased; thus, probability and/or consequences of an accident is reduced.
91-R1-003	This EER accepted using a heated junction thermocouple (HJTC) with one sensor having a low insulation resistance.	This EER did not introduce an unreviewed safety question. The Reactor Vessel Level Monitoring System (RVLMS) has two redundant HJTCs, and complete failure of one probe still allows proper operator action. Technical Specifications are unaffected by the use of the sensor. If it should fail, the RVLMS would still meet Technical Specification 3.3.3.6 minimum requirements. Technical Specifications require that two sensors are operable in the head and two are operable in the plenum. If sensor #6 fails, the system would still have three sensors available in the plenum.
91-RR-011	This EER accepted replacing RA81 disk drives with RA90 disk drives due to sector errors found on the former during backups.	This EER did not introduce an unreviewed safety question. The Radiological Records & Access Control System (RRACS) is NQR and does not interface with important to safety equipment. RRACS is not required for safe shutdown, normal operations or emergency shutdown. The RRACS equipment containing the disk has no mechanical or electrical

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91-SA-001	This EER accepted replacing the lost separation barrier that was located over relay 714 of NSSS cabinet 1JSABC01 bay 7 with an identical separation barrier.	connection to any plant components associated with the accidents previously evaluated in the UFSAR. This EER did not introduce an unreviewed safety question. This change maintains the 6" separation criteria between trains, which prevents the loss of train isolation. By installing this barrier, separation criteria per 10 CFR50, Appendix A, Criterion 24, is met and probability of malfunction of ESFAS equipment is decreased. The form, fit and function of the changed out equipment are identical to that of the existing barrier.
91-SB-001	This EER accepted repairing a CPC/CEAC CPU board by removing broken wire wrap posts from the CPU board and soldering the connecting strapping wire directly to the processor board, in lieu of the original wire wrapped configuration.	This EER did not introduce an unreviewed safety question. The soldered connections have as good or better structural and electrical connections than the original wire wrapped configuration and do not impact the proper operation of the CPU board. Failure of the CPC/CEAC results in the DNBR and LPD trip signals being sent to the PPS. This is the design function of the CPC system and is conservative. Margin of safety is not reduced.
91-SB-013	This EER accepted changing the mounting hardware configuration for the Data Acquisition System modules in the auxiliary protective cabinet rack to utilize non-locking clip nuts and screws to secure the DAS chassis.	This EER did not introduce an unreviewed safety question. The functional requirement for the CPC/CEAC is not changed. Threads will not strip, and screws can carry seismic loads without failure. Also, the equipment's seismic qualification would be maintained during a safe shutdown earthquake.
91-SC-001	This EER accepted replacing Steam Generator Wet Layup Isolation Valve SCN V-044 with a valve procured from WPPS project surplus material.	This EER did not introduce an unreviewed safety question. The affected portion of the Steam Generator Wet Layup System has no safety related function as described in the UFSAR Section 10.4.6, and it does not involve any quality related structures, components and/or systems described in UFSAR Section 3.2.

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91-SC-004	This EER accepted replacing existing level probe Robertshaw Controls model #720-AB-A0-10 with level probe Robertshaw Controls model #740A-B024-N0, and revising the setpoints of the level switches to improve calibration.	This EER did not introduce an unreviewed safety question. It has no adverse effect on the ability of the system SC to perform its design basis functions and absolutely no effect on the failure modes of important to safety equipment. The level probe being replaced is a NQR component. This change does not alter the radiological consequences of the accidents described in Chapter 15 of the UFSAR.
91-SC-009	This EER accepted installing a valve procured from WPPS project surplus material to replace Steam Generator Wet Layup Isolation Valve SCH V-045, because a replacement valve of the original configuration was not available in time for installation.	This EER did not introduce an unreviewed safety question. The affected portion of the Steam Generator Wet Layup System has no safety related function as described in UFSAR Section 10.4.6. This action also does not involve any quality related structures, components and/or systems as described in UFSAR Section 3.2.
91-SC-014	This EER accepted repairing a small tear in the 40 mesh stainless steel wire cloth cover of the Condensate Demineralizer Resin Trap Strainer Element with epoxy material.	This EER did not introduce an unreviewed safety question. The affected portion of the Condensate Demineralizer System has no safety related function as described in UFSAR Section 10.4.6, and it does not involve any quality related structures, components and/or systems described in UFSAR Section 3.2.
91-SG-006	This EER accepted replacing the silicone rubber (main disc) seats of the Target Rock solenoid valves, which supply nitrogen to the Atmospheric Dump Valves (ADVs), with polyimide to remedy leaking problems resulting from high nitrogen differential pressure.	This EER did not introduce an unreviewed safety question. The design change enhances performance of the backup nitrogen supply to the ADVs by creating a bubble tight seal with the new polyimide seat ring. The new material is both seismically and environmentally acceptable. It has exceptional heat resistance and is designed to take high differential pressures of about 700 psi. Form, fit and function are not affected.
91-SG-016	This EER accepted a configuration change to the stem packing of Fisher control valves to reduce or eliminate leakage at	This EER did not introduce an unreviewed safety question. The control valves are classified as non-safety related.

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	the valve stem.	Downstream of each valve is a safety related isolation valve which is designed to close in an emergency. The valves are designed to fail locked in place. Failure of the control valves does not affect function of the downstream isolation valves since their controls and functions are independent of each other. Besides, the components' fit, form and function remain the same.
91-SG-056	This EER accepted leak sealing the main steam isolation valve to gland steam on 1PSGNV366.	This EER did not introduce an unreviewed safety question. This component has no safety function and is classified as NQR. There is no equipment important to safety involved in this change, and it does not impact any design bases considerations. The function of the valve remains unchanged since only the seal bonnet area is affected. Possible accidents such as steam line leaks are bounded by existing UFSAR analysis.
91-SG-057	This EER allowed for the rework (weld build-up) or repair (installation of spring pin) to 3PSGNV432 as required to correct a clearance deficiency revealed during check valve inspection.	This EER does not introduce an unreviewed safety question. It provides additional assurance that the Auxiliary Feedwater (AF) check valve performs its intended function. This implementation enhances the integrity of this check valve, while alternate paths exist to satisfy the basis for operability of the AF system (to ensure adequate feed flow is maintained to allow Reactor coolant System cooldown from normal operating conditions), even if the valve suffers complete failure.
91-SG-064	This EER accepted adding hardened washers under the nuts in the body/bonnet closure joint of the Steam Bypass Control Valves (SBCVs) to reduce or eliminate the effects of galling.	This EER did not introduce an unreviewed safety question. The washer material (carbon steel) is the same as the valve body, stud and nut, and meets all requirements of UFSAR Section 3.11. Operation of the SBCVs, which have no safety function, is not affected by the addition of washers under the nuts.

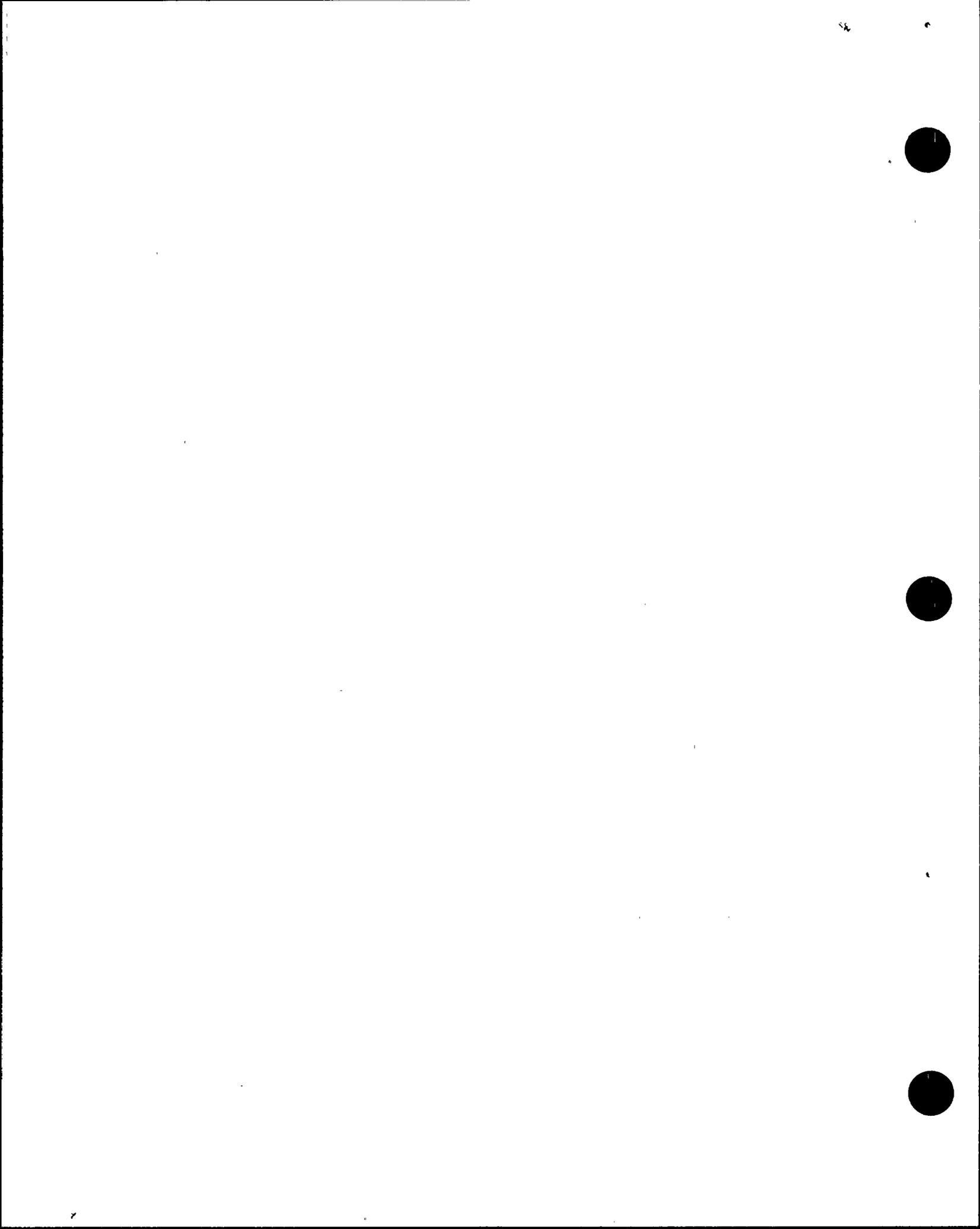


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91-SG-069	This EER accepted changing packing instructions for steam bypass control valves to alleviate a jerky motion upon opening and basically decrease stem friction forces by 30%, which should improve valve performance during stroking.	This EER did not introduce an unreviewed safety question. Operation of the SBCVs is not altered or degraded as a result of this change, but valve performance may improve. The changes are intended to minimize valve stem leakage and decrease unnecessary frictional forces, which should be considered an enhancement. The fit, form and safety function of the valves are not changed.
91-SG-076	This EER accepted adding a spacer block to the backstop of check valve 3PSGEV693 to prevent the disc from sticking open.	This EER did not introduce an unreviewed safety question. Failure of the downstream feedwater line check valve is a credible single failure listed in the UFSAR, Section 15.0, and it is not the limiting single failure for any of the accident analyses described. Since the subject repair is on the upstream check valve, neither probability nor consequences of these accident analyses are increased.
91-SG-077	This EER accepted fabricating and installing a longer hinge pin for valve 3PSGNV110, as the current hinge pin was located below the hinge pin stops.	This EER did not introduce an unreviewed safety question. Probability and consequences of a previously postulated feedwater line break is not increased. The repair is on a NQR component, and its failure is bounded by the accident analysis described in the UFSAR Section 15.2.8 and Appendix 15E.
91-SG-096	This EER accepted repairing bonnet stud threaded holes in the body of the steam bypass control valve (SBCV) with HELICOIL threaded inserts which also helps eliminate the effects of galling.	This EER did not introduce an unreviewed safety question. The SBCVs have no safety function, and the inclusion of HELICOIL inserts in the body/bonnet closure joint does not affect the operation of the SBCVs. Since the HELICOIL insert material (stainless steel) is compatible with the valve body and stud, and meets all requirements of UFSAR Section 3.11, probability of a malfunction of equipment important to safety is not increased.
91-SI-018	This EER accepted changing the packing in valve 1JSIBUV0628	This EER did not introduce an unreviewed safety question.

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	from the Fisher configuration to the EPRI configuration per the PVNGS packing program (31DP-9MP02).	The only safety equipment affected is the valve itself. Proper valve actuation capability is assured while providing the maximum degree of leak tightness; therefore, the valve functions as designed. Packing replacement can only cause additional packing leakage or valve actuation failure if the packing is too tight. Packing leakage would be minor and of no concern, and actuator failure consequences are analyzed and documented in CESSAR Table 6.3.2-2, Item 9.
91-SK-005	This EER accepted adding a pull handle to bullet resistant doors to facilitate handling the doors and alleviate the excess load applied to the door knob, as well as allow the use of a different electric strike plate for the same doors.	This EER did not introduce an unreviewed safety question. These changes have been determined to be design equivalent changes which will enhance the original installation with no adverse impact upon door safety, form, fit or function; therefore, probabilities or consequences of any accident previously evaluated in the UFSAR are not increased. The doors are not connected to, nor are they located in, the proximity of safety related equipment.
91-SP-001	This EER accepted changing non-nuclear piping Specification 13-PN-205 to allow solvent welding of PVC piping to CPVC piping. Above ground CPVC hypo piping is being changed to PVC to help remedy joint leakage problems with CPVC piping.	This EER did not introduce an unreviewed safety question. This change should make the hypochlorite injection system more reliable by allowing poor CPVC joints to be replaced with PVC joints. The water makeup, hypochlorite injection system and pond filtering system are not safety related and are non-category I construction. The filtration and chlorination systems discharge at an elevation higher than the Technical Specification minimum usable pond water level, and do not present possibility of pond drainage below the minimum usable depth.
91-SP-020	This EER accepted an alternate material for fabricating a new spray pond pump motor upper bearing cover gasket.	This EER did not introduce an unreviewed safety question. Accident probability and consequences are not increased. The gasket is for the cover plate on the spray pond pump motor upper bearing housing. The substitute material was selected for oil service and is good up to 700 degrees



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91-SR-004	This EER accepted changing the signal termination on flow totalizers to allow the counter to count down, rather than count up, to be in agreement with the operations procedure.	Fahrenheit. This condition is bounded by the accident analysis of UFSAR Sections 15.6.5. and 6.3.3. This EER did not introduce an unreviewed safety question. This equipment is non-safety related, has no safety function, is not a pressure boundary for radioactive material, and is not related to any accidents discussed in the UFSAR. This change involves only the polarity of an indicator and no actual system operation or control function.
91-SR-009	This EER accepted using only seven set screws in the spent resin transfer-dewatering pump seal instead of eight, due to one of the set screws having its hex socket stripped during installation.	This EER did not introduce an unreviewed safety question. The pump and its mechanical seal are not safety related and have no safety function, nor does the pump connect to or interface with any safety related equipment. The only accident/malfunction possible with this equipment is leakage of radioactive liquids from the system, which is analyzed in UFSAR Section 15.7.2. This change is bounded by that analysis.
91-SS-017	This EER accepted replacing NSSS sample sink (XJSSNC01) valves with soft stem tip globe valves containing Polyetheretherketone (PEEK) stem tips due to some of the valves leaking.	This EER did not introduce an unreviewed safety question. The new valves are no more susceptible to failure than the existing valves. This sampling system does not perform a safety function, and any valve leakage can be isolated and contained in the sample sink. The new valves are designed for the same temperatures and pressures as the existing ones.
91-XE-016	This EER accepted installing bonded resistance strain gauges on motor operated valve stems to increase the accuracy of the differential pressure test data taken during motor operated valve diagnostic and trend testing.	This EER did not introduce an unreviewed safety question. By increasing the accuracy of test data, probability or consequences of an accident is reduced. This change does not physically or procedurally affect operation of any PVNGS system as described in the UFSAR. The fit, form and functions of the valve are not affected. The strain gauges'

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EER Number	Description	Safety Evaluation Summary
91-XI-009	This EER accepted replacing the primary diaphragm in Static-O-Ring pressure switches with a diaphragm which provides chemical reactivity resistance to solvents, hydrocarbons, steam and water.	negligible mass and hardness do not impact the host valve's function, operation or failure modes, even if the strain gauge detaches. This EER did not introduce an unreviewed safety question. The pressure switches replacing the existing ones are identical in form, function and fit, though upgraded with better diaphragms and o-rings for service. The systems under review have no safety related functions as described in UFSAR Section 10.4.6, and do not involve any quality related structures, components or systems as described in UFSAR Section 3.2.
91-XM-004	This EER accepted adding an alternate braided sealing packing material made of polytetrafluorethylene (PTFE) for Fire Protection System (FP) valves.	This EER did not introduce an unreviewed safety question. This packing is considered equivalent to the existing packing. Because the FP uses non-process fluid and the valves are located in low radiation areas, degradation of the existing teflon type of packing due to radiation does not occur. The PTFE packing does not increase corrosion problems experienced in the FP piping. This packing maintains the pressure integrity of a non-process line.
91-XM-008	This EER accepted allowing the use of already installed valve packing lantern rings as packing spacers (and revised Specification 13-PN-220) to remedy hot particle problems.	This EER did not introduce an unreviewed safety question. This change simply allows the continued use of previously allowed materials. It does nothing to add new types of failure mechanisms to the valves, and it does not affect the sealing capabilities of the packing configuration.
91-XP-022	This EER accepted allowing the use of a substitute flame arrestor on station battery models GN13, GN23 and GC29.	This EER did not introduce an unreviewed safety question. The affected portion on the DC power systems implemented by this design equivalent change is strictly a component equal to and/or better than the original design specifications for material and construction. Margin of safety is not reduced, as this change is equivalent to the existing design and will



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EER Number	Description	Safety Evaluation Summary
91-ZA-005	This EER accepted permanently installing engineered hoist rings in the concrete slab at the 100' elevation of the Auxiliary Building, to be used for rigging required for valve maintenance.	enhance system efficiency of the Electrical Power System. This EER did not introduce an unreviewed safety question. The rigging assemblies have been evaluated to support allowable loading during the required rigging and to remain in place during a design basis SSE event. The design equivalent change does not alter the form, fit or function of the Auxiliary Building. All rigging from the assemblies is performed in accordance with approved PVNGS NATM procedures.
91-ZA-019	This EER accepted providing a field option detail for counter flashing to help prevent decay of expando flashing.	This EER did not introduce an unreviewed safety question. The field option continues to maintain the design function of the counter flashing/expansion joint, which is to allow movement of the structures while keeping water out of the seismic gap. It does not change the intended function of the counter flashing or the structural integrity of any site structure. No other systems, structures or components are impacted.
91-ZA-027	This EER accepted allowing the use of infrared door detectors for elevators and roller rubber gibs for doors in lieu of existing mechanical safety shoe (retractable door edge activators) and door slide gibs to permit the doors to remain open for longer periods of time.	This EER did not introduce an unreviewed safety question. This is a design equivalent change which enhances the original installation with no adverse impact on door safety, form, fit or function. The elevators are not connected or located in the proximity of safety related equipment. The elevator doors' new condition enhances its operation and reduces the down time to maintenance.
91-ZG-004	This EER accepted cutting the reinforcing bar (rebar) along the north wall of room G-104 as part of the reinstallation of Roll-Up Fire Door G-111.	This EER did not introduce an unreviewed safety question. This action has no adverse effect upon any quality related structures, systems or components. The subject concrete wall is designed to maintain structural integrity during a seismic event in accordance with UFSAR Section 3.7. This revised design configuration is structurally adequate with

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EER Number	Description	Safety Evaluation Summary
91-ZG-005	This EER accepted anchoring spacing violations, identified during reinstallation of roll-up fire door G-111, along the north wall of Room G-102. Existing anchors were removed and new Drillco Maxi Bolts installed.	the requested rebar cuts. This EER did not introduce an unreviewed safety question. The roll-up fire door is designed to maintain structural integrity during a three hour fire in accordance with NFPA-80 code requirements. The revised design configuration is structurally adequate with the identified anchor spacing violations. This action has no adverse effect on any quality related structures, systems or components.

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1,2,3FJ-SC-131	This DCP added additional sample system monitoring instrumentation to the steam generator blowdown samples from the hot leg and downcomer. This will improve secondary water chemistry monitoring and lead to improved secondary plant equipment performance.	This DCP did not introduce an unreviewed safety question. This change helps minimize equipment failures and improves equipment performance. The modifications are non-safety related and only affect non-safety related equipment. Probability and consequences of a malfunction of equipment important to safety remain unchanged.
1,2,3FJ-SS-032	This DCP modified the H2O2 analyzer in all three Units, to add orbispheres and capability to sample the gas surge header, which included changing the transformer size from 2 KVA to 6 KVA and rewiring the discharge pump motor.	This DCP did not introduce an unreviewed safety question. This change only involves the method of O2 sampling and deletion of H2 sampling. It increases the ability to sample oxygen concentrations and provides better information concerning the presence of combustible mixtures. Solution of the surge tank on high-high oxygen concentration of 4% by volume is unchanged. Since action statements will be implemented whenever sensed oxygen concentrations exceed appropriate limits, probability of a rupture of the Waste Gas Decay Tank is decreased.
1,2,3OJ-SQ-043	This DCP changed radiation alarm default parameters in 25 monitors to eliminate reprogramming after power failure.	This DCP did not introduce an unreviewed safety question. The new modules are of the same material as the old, and therefore do not affect any fire protection features, combustible loading or safe shutdown equipment. They are identical to the old ones and do not introduce any structural changes. The new values fall within the range of operating values in the Technical Specifications.
1,2,3PJ-SQ-002	This DCP resolved HRN detector grounding problem by isolating the detector housing from plant ground and connecting it to pre-amplifier signal ground, as well as using insulating material to prevent the detector housing from being grounded by the mounting clamps.	This DCP did not introduce an unreviewed safety question. Scotch 33 tape installed on the detectors per temporary modifications is removed and replaced by kapton tape. The proposed change results in the elimination of intermittent noise-induced alarms and detector spiking, and enhances the performance of the monitor. It does not involve tests or experiments not described in the UFSAR, and does not affect



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DCP Number	Description	Safety Evaluation Summary
1,2,3XE-QB-010	This DCP provided fire zone isolation between the voltage regulator circuits (EQBAV01 and EQBBV02) feeding control room essential lighting panels (EQBND81 and EQBND84) to prevent a complete loss of essential control room lighting in the event of a fire.	any functional design or Technical Specifications. This DCP did not introduce an unreviewed safety question. This modification simply re-routes the cables to assure that no common fire zones are traversed. Any penetrations that are disturbed will be controlled by existing procedures. The function of the control room essential lighting is not changed by this modification. Additionally, the essential lighting system is non-safety related and is not directly tied to any safe shutdown equipment.
1,2,3XE-QD-026	This DCP reduced the load on UPSs 1,2,3E-QDN-W01&2 and reset the low voltage relay of each of these UPSs to compensate for the excessive voltage drop between the UPSs and its battery, to ensure under all conditions that batteries F01 & F02 can supply the reduced load for the required eight hours as specified by the design bases.	This DCP did not introduce an unreviewed safety question. It involves entirely non-safety related equipment and is used to aide the operators in shutting down the unit safely. The small reduction to the essential electrical load increases reliability of safety systems by adding additional margin to the diesel generator loading. This change has not altered the intent of the original design. The possibility of a malfunction of a different type than previously evaluated in the UFSAR is not created.
1,2,3XE-QD-027	This DCP provided fire zone isolation between the two battery station circuits (EQDNF01 and EQDNF02) feeding control room emergency lighting inverters (EQDNN01 and EQDNN02) to prevent a complete loss of control room emergency lighting in the event of a fire in the fire zone.	This DCP did not introduce an unreviewed safety question. The changes do not alter the function of emergency lighting as described in UFSAR and are covered by testing to the requirements of UFSAR, Sections 9.5.3.4 and 14.B.10. The emergency lighting system is not involved in any of the accident scenarios addressed by UFSAR Chapter 15. This DCP involves entirely non-safety related equipment per UFSAR Table 3.2-1 and Section 9.5.3, and is used to aide the operators in shutting down the unit safely by enhancing the availability of control room lighting following a fire.
1,2,3XJ-HJ-056	This DCP installed switches and indicators in DC Equipment Rooms, and temperature indicators in Battery and ESF	This DCP did not introduce an unreviewed safety question. The new temperature switches and local indicators have no

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DCP Number	Description	Safety Evaluation Summary
	<p>Switchgear Rooms. It also wired out temperature switches via Annunciator Logic Cabinet to plant computer for high temperature alarm logging and to common (existing) "Control Building HVAC System Trouble" annunciator window in the Control Room. [This DCP is intended to help minimize or eliminate an event initiator which could lead to a failure mode that makes the plant vulnerable to a loss of DC control power.]</p>	<p>safety function and do not interface with any equipment or components important to safety. The proposed instruments, electrical junction boxes and conduit have seismic supports for Seismic Cat. 9 mounting for I1/I equipment mounting consideration. These modifications do not affect the sequence of events or operator actions/responses for any accidents addressed in the UFSAR. All conduit penetrations are sealed to conform to the requirements of Appendix 9B of the UFSAR.</p>
1,2FH-SI-179	<p>This DCP deleted snubbers and modified pipe supports in the Containment Building due to implementation of the snubber reduction program and inclusion of Water Hammer Analysis for Containment Spray System.</p>	<p>This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system will not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the Code, the Design Criteria and the UFSAR, and the integrity of the piping system is maintained.</p>
1,2PE-ZC-194	<p>This DCP modified the Containment Personnel Airlocks to enhance the fault current protection provisions of the electrical system, in order to better ensure the integrity Airlock electrical conductor assemblies.</p>	<p>This DCP did not introduce an unreviewed safety question. The Airlocks assure containment pressure boundary integrity while permitting easy access/egress to workers. Power is provided to airlocks, permitting automatic door closing and lighting--neither of which is necessary for plant nuclear safety. The addition of fuses/fuse blocks to the Personnel Airlock Main Control Panel(s) is an enhancement to the existing Airlock Control and lighting circuit design, which meets the intent of commitments to IEEE 317 and Reg. Guide 1.63 in regards to enhanced protection for the Electrical Conductor Seal Assemblies (ECSAs) which are part of the Airlock/Containment pressure boundary.</p>
1,2XC-ZZ-013	<p>This DCP permanently attached a pulley and cable lanyard assembly to 10 existing containment spray line pipe supports. This is an alternate method for installing Integrated Leak Rate Test (ILRT) instrumentation that</p>	<p>This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The probability/consequences of previously evaluated accidents or malfunctions are not</p>



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eliminates the need for the scissors lift to be installed on top of the polar crane.

affected. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria Manual and the UFSAR.

1,3FJ-AF-091

This DCP replaced four motor operated valve actuators and yoke assemblies on valves #J-AFB-UV-034/5/6/7 to ensure correct operation, as the maximum torque available was found to approach the maximum thrust required to operate during plant abnormal or transient conditions.

This DCP did not introduce an unreviewed safety question. The increased current draw falls within current capacity of normal and emergency power distribution systems. The upgraded actuators do not detrimentally impact the four Auxiliary Feedwater MOV's design basis in safety procedures. They are still activated by ESFAS and constitute part of safe shutdown equipment. Replaced hardware involves identical but upgraded components. Increasing torque on the MOVs decreases possibility of an accident of a different type, as the MOVs are less likely to fail.

1,3FJ-AF-093

This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.

This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.

1,3FJ-RC-158

This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.

This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.

1,3FJ-RD-039

This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.

This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is

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DCP Number	Description	Safety Evaluation Summary
1,3FM-SP-058	This DCP added a chemical addition skid to meter sulfuric acid and other chemicals into the spray ponds for chemistry control.	being added, nor is any equipment being moved. This DCP did not introduce an unreviewed safety question. The chemical addition skid does not interface with systems required for the safe operation or monitoring of daily plant operation. The tanks are seismically supported such that they won't damage operation of the spray ponds. The acid is within bounds of previously analyzed acid spills in the context of control room habitability.
1FJ-IA-063	This DCP improved the Breathing and Maintenance System by replacing the existing regulator with a 2-stage regulator, and adding a high and low sampling flow alarm and high pressure relief valve.	This DCP did not introduce an unreviewed safety question. The Breathing Air System is non-safety related, not important to safety, and not specified in the Technical Specifications. Thus, margin of safety is not reduced. The Breathing Air System does not affect plant operation, shutdown or safe shutdown.
1FJ-SC-134	This DCP replaced secondary chemistry sample temperature controller 13-J-SCN-TIC-610 and its associated control valve 13-J-SCN-TV-610 with more reliable, more accurate and more correctly sized components.	This DCP did not introduce an unreviewed safety question. The Secondary Chemical Control System is a non-safety related system which poses no constraints on plant operation or safe shutdown modes. It is not an active or interactive system possessing related control functions that might impact on safety related systems or components. This change and system are classified as NQR, and the margin of safety is neither reduced nor impacted.
2,3FE-MA-065	This DCP replaced existing alarm relays in Normal Service transformers, ESF transformers, Start-up transformers, Generator Step-up transformers and a Unit Auxiliary transformer, with relays (KUP series) which are considered more suitable for the service intended.	This DCP did not introduce an unreviewed safety question. This change does not alter the original design or construction standards. It replaces relays with ones better suited for the low voltage/low current annunciator circuits and enhances the system performance and reliability. Subject non-class 1E relays are located in non-class 1E panels in outside areas. The change to a non-class 1E system is within project requirements, design criteria and

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2,3FJ-CP-028	This DCP rewired the valve's motor operator to provide improved overall operation of the system's valves and to provide the control room operator with more accurate valve status information.	specifications. The changes made by this DCP are non-safety related. This DCP did not introduce an unreviewed safety question. Its main purpose is to reserve rotor 2 on the CP system Limitorque valve operators for the torque switch bypass, and place any position-indicating contacts on a separate rotor for more accurate control room and computer indication of valve position/status. This change makes operation more reliable without affecting the Technical Specifications.
2,3FJ-RC-151	This DCP added control room and local indication for monitoring refueling water level (refueling pool and reactor vessel).	This DCP did not introduce an unreviewed safety question. It provides proper isolation between the existing signal and the new refueling water level instrumentation. If the isolation means did fail, SIAS would still be obtained (failure does not affect ESFAS). Reliability of equipment important to safety is likely to be enhanced since the change makes a loss of shutdown cooling less probable because of better refueling water level indication.
2,3FJ-SC-133	This DCP replaced recorders on the condensate polisher panel 13-J-SCH-E01 and on blowdown demineralizer panel 13-J-SCH-E20 for the secondary chemical control system to provide better recording and monitoring of the sampling system.	This DCP did not introduce an unreviewed safety question. This non-safety related design change is not related to any previously analyzed accident scenarios in the UFSAR. Also, the consequences of failure of recorders does not affect any important to safety equipment.
2,3FJ-SD-032	This DCP swapped two of the four steam generator steam flow signals to ERFDADS in cabinet SDNC08 with two other signals to separate the steam flow signals on two different analog input cards, such that single failure to one card will not cause loss of all four signals and cause the SBCV to quick open and trip the reactor as a result.	This DCP did not introduce an unreviewed safety question. It only involves an internal wiring termination change and does not affect any process parameter or equipment. The ERFDADS will perform the exact same functions as originally designed. No challenge to safety is raised by this change, as no safety system or component has been altered.
2,3FJ-SD-034	This DCP made software program changes to the displays in	This DCP did not introduce an unreviewed safety question.

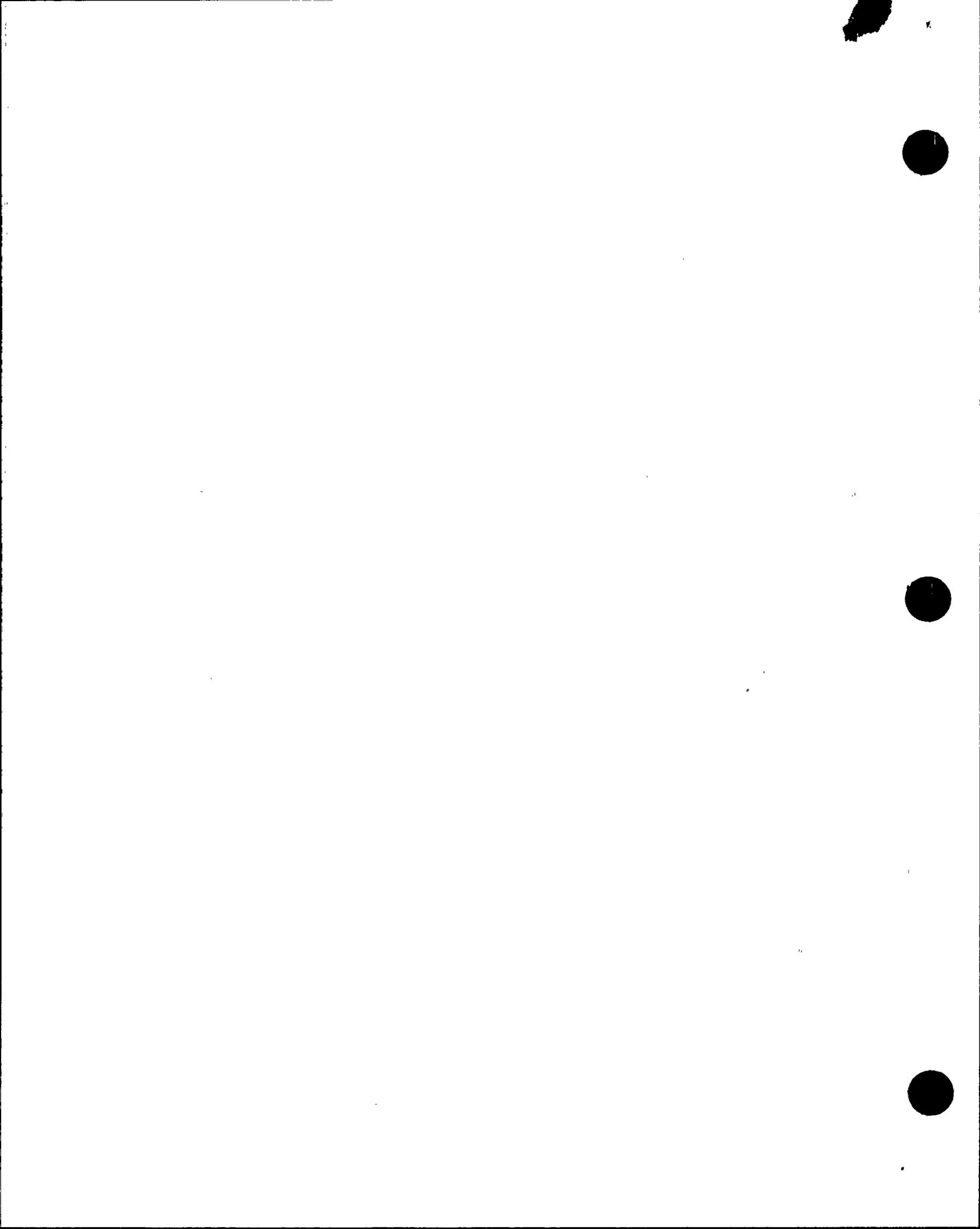


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	the ERFDADS/SPDS programs associated with the display of SPDS information, and replaced one-for-one the keycaps on the ERFDADS keyboards due to commitments made to the NRC resulting from a Safety Parameter Display Audit.	The changes clean up extraneous items from the display and improve the system. There are no changes in the numbers of plant process signals, reactor trip signals, and engineered safety feature signals, and there are no changes in bypass indications. The SPDS is designated as equipment not important to safety. It does not provide any control and does not impact any safety or non-safety equipment.
2,3FJ-SV-012	This DCP added the computer capability of monitoring the reactor coolant pump shaft for possible cracks.	This DCP did not introduce an unreviewed safety question. It involves the addition of a non-quality related, non-QAG monitoring subsystem to the SV system which has no interface with any QR or QAG systems or components. This RCP shaft crack monitoring subsystem is far superior to the subsystem presently installed (which measures excessive vibration only), so the probability of an accident previously evaluated in the UFSAR (RCP shaft break with LOP) is actually decreased.
2,3FH-SP-057	This DCP replaced the spray pond hypochlorite feed tank with a new tank of the same capacity installed above ground.	This DCP did not introduce an unreviewed safety question. The operation of the hypochlorite subsystem is not changed. Maximum possible overfeed is that already considered in the UFSAR. The hypochlorite injection subsystem is not important to safety. Failure of the hypochlorite subsystem, does not impact operation of the spray pond.
2,3PJ-RJ-045	This DCP modified the CMC to CPC/CEAC data link processing program of the Core Monitor Computer in the Plant Monitoring System (PMS).	This DCP did not introduce an unreviewed safety question. The PMS and its NSSS application programs and all other functions presently implemented in the PMS are solely for operator and administrative convenience, and each of the functions is intended to enhance flexibility of plant operation. None of the PMS functions are required to ensure plant safety or permit plant operation, since the PMS does not initiate safety related functions.

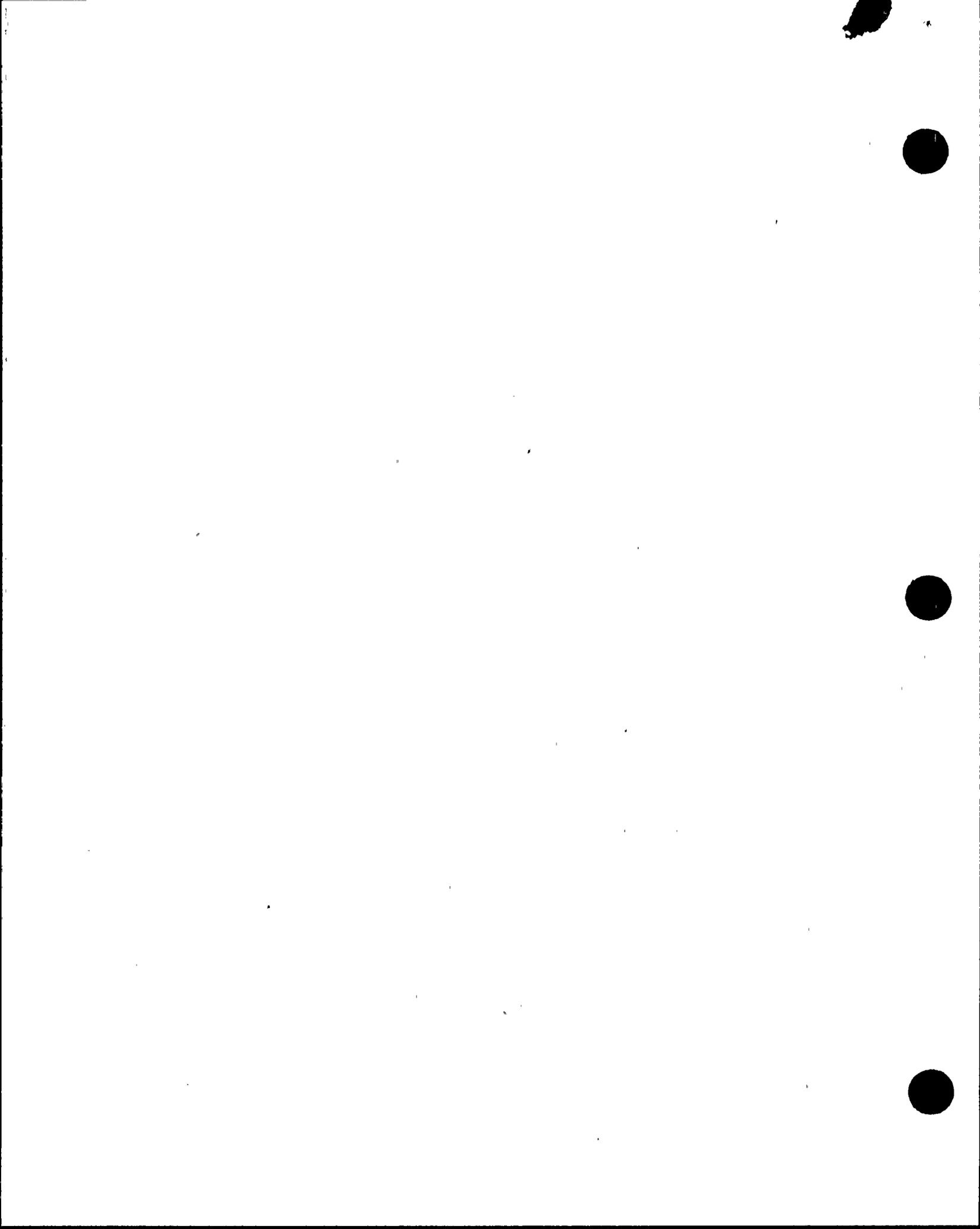
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2,3PH-IA-065	This DCP installed a tee, isolation valve and blind flange to the upstream and downstream piping of the existing air dryers in the instrument air system. This allows for the future installation of new instrument air dryers (in accordance with Plant Change Request 87-13-IA-006) to be performed while the unit is at power and without impact to the unit operation.	This DCP did not introduce an unreviewed safety question. UFSAR Section 9.3.1.2.1 states that a compressed air failure has no effect on the capability of air operated valves provided in the ESF systems to perform a safe reactor shutdown, and the compressed air system has no safety design basis. In the event of temporary failure, the instrument air system is backed up by the nitrogen system. Therefore, probability of a malfunction of equipment important to safety is not increased.
2,3XJ-SF-030	This DCP modified Steam Bypass Control System/Instrument Loop Improvement (SBCS/ILI) control loops 1024 and 1027 to provide channel and power supply independence.	This DCP did not introduce an unreviewed safety question. The SPCS/ILI does not affect a Class 1E system. The changes are compatible with the existing installation and are done in accordance with Technical Specifications. Channel independence on the SBCS reduces probability of an accident. Increase in reliability is accomplished in that 1024 and 1027 will have separate power supplies that are from separate AC power sources.
2,3XM-CH-245	This DCP removed the seal injection line thermal relief valve, CHN-PSV-865, and installed blank flanges at its connection points to the seal injection line and the line to the equipment drain tank to stop leakage. This DCP modifies the spectacle flange in line ASN-L118 to a blank flange to prevent inadvertent supply of steam to seal injection heat exchanger.	This DCP did not introduce an unreviewed safety question. Replacing the relief valve with blank flanges would not place any unacceptable stresses on the existing design. Leakage/failure of the new flanges are within the bounds of existing accident analyses as addressed in UFSAR, Chapters 12 and 15. Removing thermal relief valve and installing blank flanges will eliminate the possibility of a relief valve failing open. Disabling the steam flow to the SIHX will eliminate the source to cause thermal over-pressurization. None of this creates conditions which are outside the bounds of accidents presently evaluated in the UFSAR.
2FC-CH-239	This DCP deleted mechanical snubbers, replaced snubbers with	This DCP did not introduce an unreviewed safety question.



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	struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Chemical and Volume Control Charging piping.	The UFSAR does not mention piping/support integrity or the modification/removal of pipe supports/snubbers. There are no effects on the operating and maintenance procedures for the Chemical and Volume Control system operation. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-CH-240	This DCP deleted mechanical snubbers, replaced snubbers at struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Chemical and Volume Control System Reactor Coolant Pump Seal Injection piping.	This DCP did not introduce an unreviewed safety question. The redesigning of the support system in this snubber reduction program does not affect the operability of the system or the UFSAR procedures, tests or accident analyses. As documented in the stress, pipe support and structural calculations, the support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-CH-241	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Chemical and Volume Control System Reactor Coolant Pump Seal Injection piping.	This DCP did not introduce an unreviewed safety question. There are no effects on the operating and maintenance procedures for the Chemical and Volume Control system as referenced in Section 13.5.2 of the UFSAR. The deletion of snubbers and modification to pipe supports are not explicitly referred to in Chapter 14, Section 14.2.3 of the UFSAR. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-CH-242	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the CH System Reactor Coolant Pump 2A Seal Injection Piping.	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. As documented in the stress, pipe support and structural calculations, the support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria, and the UFSAR.

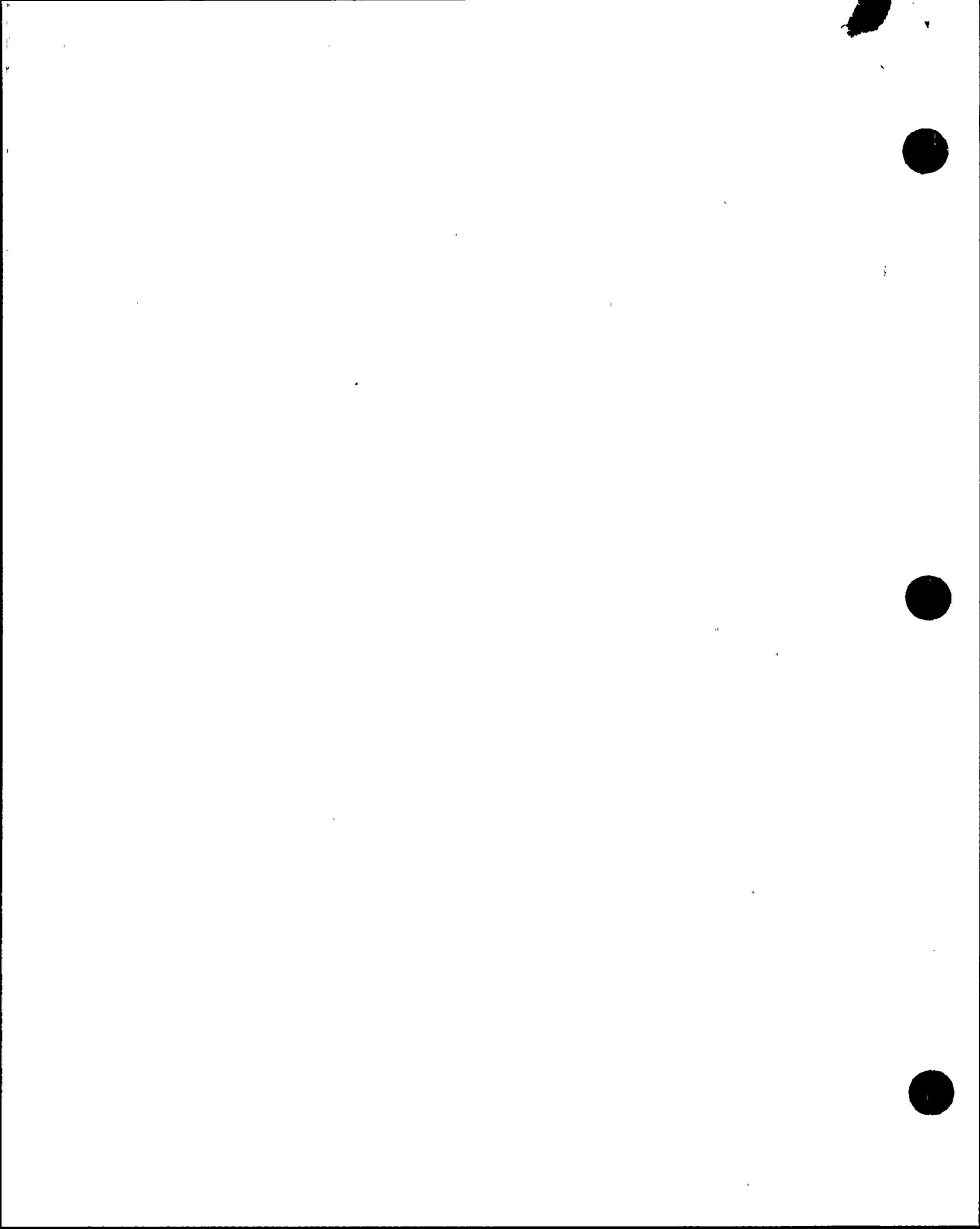


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DCP Number	Description	Safety Evaluation Summary
2FC-CH-243	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Auxiliary Building due to the implementation of the snubber reduction program for the Chemical and Volume Control Letdown piping.	This DCP did not introduce an unreviewed safety question. This redesigning of the support system in the snubber reduction program does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-CH-244	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the containment building due to implementation of the snubber reduction program for the Chemical and Volume Control System Reactor Coolant Pump Seal Injection piping.	This DCP did not introduce an unreviewed safety question. There are no effects on the operating and maintenance procedures for the chemical and volume control system. Procedures in the UFSAR are not affected by the proposed modifications. There are no changes to tests/experiments in UFSAR. The redesign of the support system does not affect the operability of the system. The proposed change does not increase the probability of occurrence or consequences of an accident previously evaluated in the UFSAR.
2FC-RC-162	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Reactor Coolant Pump 1A Controlled Bleedoff piping.	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-RC-163	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Reactor Coolant Pump 1B Controlled Bleedoff piping.	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-RC-164	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Reactor Coolant Pump 2B Controlled Bleedoff	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME

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DCP Number	Description	Safety Evaluation Summary
2FC-RC-165	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Reactor Coolant Pump 2A Controlled Bleedoff piping.	Code, PVNGS Design Criteria and the UFSAR. This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-SI-183	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Safety Injection/Shutdown Cooling to RC Loop 2A piping.	This DCP did not introduce an unreviewed safety question. This redesign of support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-SI-184	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Safety Injection/Shutdown Cooling to RC Loop 2B piping.	This DCP did not introduce an unreviewed safety question. This redesign of support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-SI-185	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Safety Injection Tanks' Fill and Drain piping.	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-SI-186	This DCP deleted mechanical snubbers, replaced snubbers with struts and modified pipe supports in the Containment Building due to implementation of the snubber reduction program for the Safety Injection/Shutdown Cooling to RC Loop 1B piping.	This DCP did not introduce an unreviewed safety question. Adequate redesign of the support system does not affect the operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FC-SI-187	This DCP deleted mechanical snubbers, replaced snubbers with struts, and modified pipe supports in the Containment	This DCP did not introduce an unreviewed safety question. Redesign of the support system does not affect the

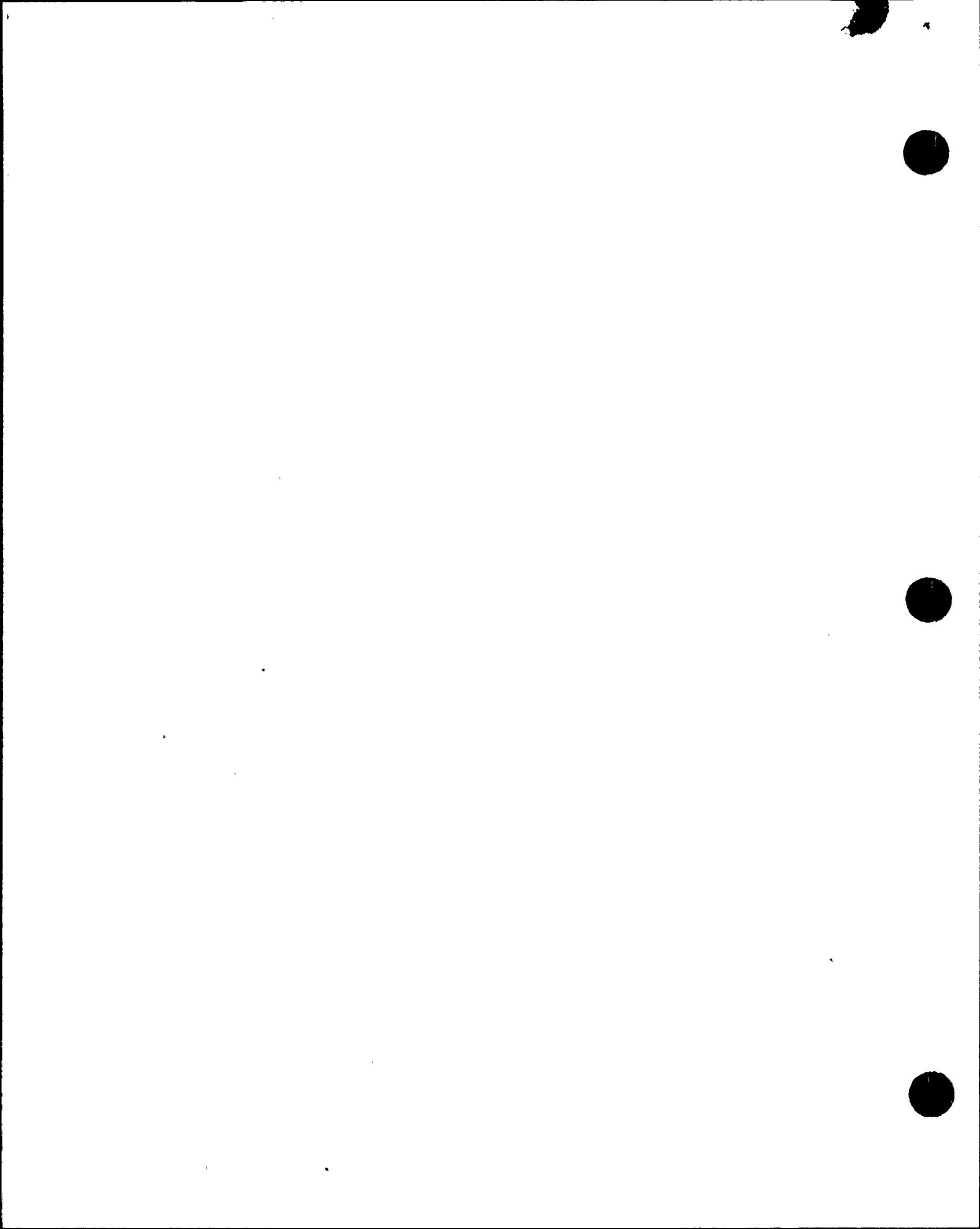


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	Building due to implementation of the snubber reduction program for the Safety Injection/Shutdown Cooling to RC Loop 1A piping.	operability of the system. The support system has been properly designed, meeting all the requirements of the ASME Code, PVNGS Design Criteria and the UFSAR.
2FE-NA-044	This DCP added a new 125 volt AC test switch on 13.8 kv non-class 1E switchgear cabinets E-NAN-S01B & E-NAN-S02B to facilitate the test run on high speed sync-check Beckwith Relay.	This DCP did not introduce an unreviewed safety question. The change eliminates the need for extensive disconnecting and taping of energized leads/wires. Thus, it reduces the occurrence of any shock hazard to personnel due to energized wires or malfunction due to chances of wrong wire connections. UFSAR Section 8.3.1.1, "Non-Class 1E AC System," is not affected.
2FJ-HP-045	This DCP rewired the HP system containment post-LOCA hydrogen analyzer amplifier circuits to install RFI shunting capacitors for noise suppression.	This DCP did not introduce an unreviewed safety question. Probability or consequences of an accident previously evaluated in UFSAR is not increased, as the design change only modifies existing amplifier circuit internal wiring. No new system equipment is being added, nor is any existing equipment being moved.
2FJ-SB-064	This DCP installed the Diverse Auxiliary Feedwater Actuating System (DAFAS) to provide a diverse means to initiate auxiliary feedwater to comply with the ATWS Rule, 10CFR50.62, requirements. The purpose of the diversity is to minimize the potential for a common mode failure disabling both existing AFAS and existing Reactor Protection System (RPS).	This DCP does not introduce an unreviewed safety question. The change does not affect RPS operation or functions as they are currently designed. The DAFAS design is consistent with the existing RPS design and is adequately encompassed by UFSAR, Section 13.5. The DAFAS interfaces with existing plant systems through the use of qualified fiber optic components which keep the DAFAS electrically isolated from existing plant systems. The only difference between DAFAS and the existing AFAS is the diversity of the logic circuitry between the input sensors and final actuation devices.
2FJ-SQ-054	This DCP removed the NSSS Interface device between RYSH 204/265 and the RMS minicomputer to improve reliability of the RMS and provide high rad/fail alarms to the control room	This DCP did not introduce an unreviewed safety question. The design of these monitors remains unchanged in their original function. The margin of safety is increased, as

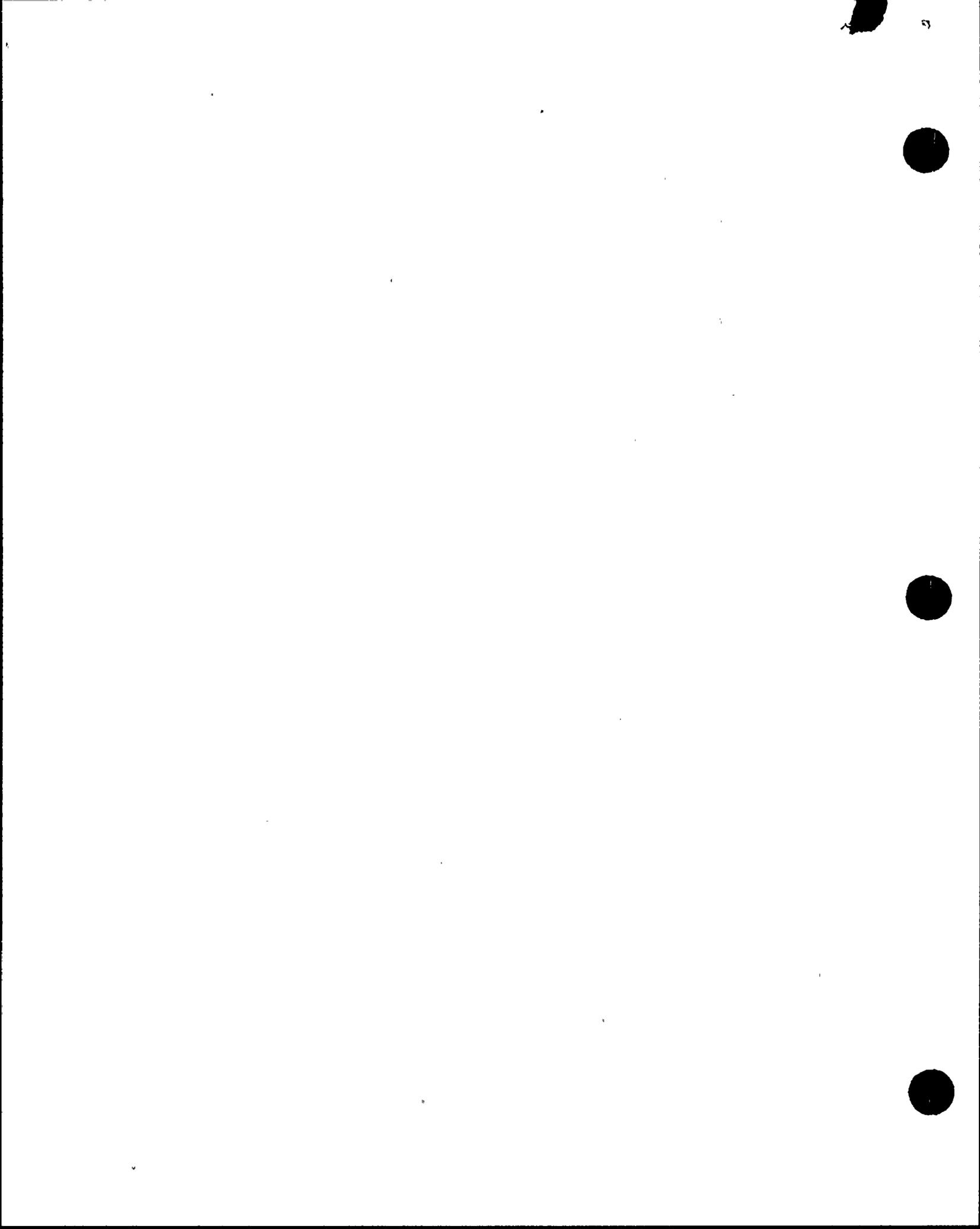
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	annunciator.	the RMS minicomputer would not have indicated a difference between a high rad or fail condition. This change insures that operators read the correct indications, and it complies to UFSAR Phase I requirements.
20M-1A-062	This DCP added a new compressor, two air receivers and associated piping for the service/breathing air system in the Turbine Building.	This DCP did not introduce an unreviewed safety question. This installation has no effect on plant operation or safe shutdown. Failure of the service air system will not render the fire protection pre-action sprinkler system or hydrogen recombiners inoperable. Therefore, consequences of a malfunction of equipment important to safety are not decreased.
2PH-RC-167	This DCP for Unit 2 replaced 8 RCS hot leg pressure and sampling nozzles made of Incone 1600, which were determined to be highly susceptible to Primary Water Stress Corrosion Cracking (PWSCC), with nozzles made of Incone 1690, a material with greater corrosion resistance, to avoid a forced outage due to potential cracks.	This DCP did not introduce an unreviewed safety question. The replacement enhances the structural integrity of the reactor coolant pressure boundary against reactor coolant leakage. The replacement of these nozzles on the hot legs of the reactor coolant system piping will not interfere or alter either the performance of the differential pressure sensors or the response of the PPS. Therefore, it does not increase the probability or consequences of any previously analyzed accidents, or reduce the margin of safety as defined in the basis for any technical specification.
2XE-SG-163	This DCP relocated the 125V DC Control Power feeds associated with the MSIV/FWIV logic panels J-SGA-C01/J-SGB-C01 from 125V DC Distribution Panels E-PKA-D21/E-PKB-D22 located in 125V DC Motor Control Centers (MCC) E-PKA-M41/E-PKB-M42 directly to the MCC's battery input bus to reduce the probability of valve closures due to a loss of 125V DC Distribution panel buses E-PKA-D21 and E-PKB-D22.	This DCP did not introduce an unreviewed safety question. With this change, the MSIV/FWIV Logic panel control power feed is unaffected because of a loss of 125V DC at the distribution panels due to a fault on the MCC or distribution cabinet bus, or a failure of any one of three circuit breakers or one set of power fuses, causing a loss of control power. Thus, the probability of a spurious MSIV closure (an initiating event) is reduced. Functionally, the MSIV and FWIC systems continue to perform as described by the UFSAR.



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2XJ-GR-046	This DCP replaced the existing and obsolete Teledyne Hastings model #DNAHL-100 XEX/CC-420 with Teledyne Hastings model #DHALL-P, CC-420J for the flowmeters in all three units to allow more accurate monitoring/controlling of gaseous discharge flow in the discharge header.	This DCP did not introduce an unreviewed safety question. Both models have the same function, use identical working principles, and do not affect plant operations adversely. The changes replace obsolete components classified NGR with components similar in form, fit and function. They have no effect on the failure modes of important to safety equipment.
2XJ-SG-164	This DCP changed the failure mode of the Train A downcomer isolation valves to fail open upon loss of Channel A DC control power.	This DCP did not introduce an unreviewed safety question. This change allows the Train A downcomer isolation valves to have an identical failure mode as the Train B downcomer isolation valves. The probability of occurrence of an accident previously evaluated in the UFSAR is not increased.
3CE-QF-011	This DCP upgrades the plant communication system by installing emergency notification system (ENS) hotline phones and health physics network (HPN) dial-up phones as required per NRC emergency preparedness guidelines.	This DCP did not introduce an unreviewed safety question. The plant communication system is not required for safe shutdown and is not covered in the Technical Specifications, nor is it used to mitigate the consequences of an accident event. The installation of additional communication equipment does not alter the function and purpose of the plant communication system.
3CN-SQ-042	This DCP replaced moving paper filter to fixed paper particulate filter monitors for RU-8, RU-14 and RU-13A&B to provide a more mechanically reliable radiation monitor, thereby reducing maintenance.	This DCP did not introduce an unreviewed safety question. These are non-ESF monitors which do not perform any safety function. They are not discussed in the Technical Specifications. This change does not increase probability of occurrence or consequences of an accident or malfunction of equipment important to safety.
3FE-HC-054	This DCP changed the existing back-up power source feed for the Containment Building humidity and temperature recorder from a Non 1E power source to a Class 1E power source, per APS commitment to NRC.	This DCP did not introduce an unreviewed safety question. All components being added by this change are similar to those already installed per Specification 13-EH-018, so there is no possibility of creating a malfunctioning of a



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DCP Number	Description	Safety Evaluation Summary
3FJ-CD-092	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	different type than any previously evaluated in UFSAR. This change does not affect any initiating events. Also, the installation of a dual breaker arrangement for Class/Non-Class separation prevents the NSR equipment from affecting the Class 1E system.
3FJ-CH-238	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-CW-049	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-ED-094	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.



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DCP Number	Description	Safety Evaluation Summary
3FJ-EW-032	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-FW-025	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-GR-045	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-HC-053	This DCP rewired the damper's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate damper status information. No new equipment is being added, nor is any equipment being moved.
3FJ-HJ-051	This DCP utilized auxiliary switch contacts of the control room essential AHU fans to control the action of valves ECA-TV-29 and ECB-TV-30.	This DCP did not introduce an unreviewed safety question. This change prevents moisture accumulations around the filter housings (which could lead to equipment malfunctions). The presence of redundant trains insures that a single active component failure will not prevent the

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DCP Number	Description	Safety Evaluation Summary
3FJ-HP-044	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	filtration and cooling functions of the control room HVAC systems from being performed. There are no changes in the control room essential service design described in the UFSAR.
3FJ-HT-148	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, and no equipment is being moved.
3FJ-NC-038	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-RC-159	This DCP added a Fisher type 627R pressure regulator between the air supply root valve and the volume booster on the main air supply line for each pressurizer spray valve, J-RCE-PV-100E&F.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-SA-020	This DCP replaced ESFAS power supplies in auxiliary relay cabinets J-SAA-C01 and J-SAB-C01 located in the main control	This DCP did not introduce an unreviewed safety question. Reliability of the valve diaphragms, positioners and volume boosters is increased due to the reduction of the instrument air supply pressure. The valve spring closes upon loss of instrument air. No safety related equipment is modified.
		This DCP does not introduce an unreviewed safety question. The safety related, seismic category I classification is

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3FJ-SC-135	room. Since the original Power Mate model #FPS-36-20-P2400 is no longer manufactured and it only marginally provides reliable output, it is being substituted with a LAMBDA Power Supply model #LRS-58-48-43050. This DCP refurbished the Secondary Chemistry Control System by deleting some instruments that make unnecessary measurements, adding some new measurements, and replacing obsolete analyzers with field proven analyzers.	maintained in all respects, and the Failure Modes and Effects Analysis is unchanged. All design requirements are met, and separation/isolation requirements are maintained. This DCP did not introduce an unreviewed safety question. The Secondary Chemical Control System is a non-safety related system which poses no constraints on plant operation or safe shutdown modes. It is not an active or interactive system possessing related control functions that might impact on safety related systems or components. This change and system are classified as NQR, and the margin of safety is neither reduced nor impacted.
3FJ-SC-136	This DCP changed the Secondary Sampling System by remodeling the Cold Laboratory, designing a new wet rack in the Turbine Building and relocating its in-line analyzers, and interfacing with the Micromax computer system.	This DCP did not introduce an unreviewed safety question. The Secondary Chemical Control System is a non-safety related system which poses no constraints on plant operation or safe shutdown modes. It is not an active or interactive system possessing related control functions that might impact on safety related systems or components. This change and system are classified as NQR, and the margin of safety is neither reduced nor impacted.
3FJ-SE-027	This DCP added a new indication and dampening indicator circuit to the Main Control Panel to improve operator ability to read power rate of change during start-up.	This DCP did not introduce an unreviewed safety question. Excuse safety channel configuration is perturbed only by adding parallel, damped indication to existing indication, and this change has no bearing on consequences of previously evaluated UFSAR accidents. The indicator performs no safety related function and is not part of any accident scenario. Also, all new hardware, its installation and testing will be of equal quality to existing hardware, so no increased probability of malfunction is introduced.
3FJ-SE-028	This DCP replaced a 1-speed recorder with a 2-speed recorder	This DCP did not introduce an unreviewed safety question.

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	to improve the operator's ability to trend start-up channel flux levels.	The 2-speed recorder is equivalent in form, fit and function, and all other aspects of the start-up channels are unaffected. Only the recorder speed is modified, and this has no bearing on consequences of any previously evaluated Chapter 15 Rev. 2 UFSAR accident. The start-up channel is a non-safety related system with no role in the mitigation of any event, and it is not described in the Technical Specifications, so no margins of safety are affected by this change.
3FJ-SG-161	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-SI-178	This DCP rewired SI system valve limiter torque motor operators and train related isolated cabinets to provide improved overall operation of the SI system valves and to provide the operator with more accurate valve status information.	This DCP did not introduce an unreviewed safety question. Consequences of an accident previously evaluated in UFSAR Chapters 6 and 15 do not increase, as the proposed design changes only modify existing internal wiring in both the SI valves' Limitorque motor operators and in the Train A, B, C & D isolation cabinets. No new equipment is being added, nor is any existing equipment being moved. Therefore, it does not reduce the margin of safety.
3FJ-SP-059	This DCP rewired the valve's motor operator by placing the torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.	This DCP did not introduce an unreviewed safety question. It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.
3FJ-WC-046	This DCP rewired the valve's motor operator by placing the	This DCP did not introduce an unreviewed safety question.



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30E-DG-060	<p>torque switch bypass and indication circuits on separate rotors, which eliminates the compromise between the torque switch bypass setpoint and valve position indication setpoint.</p> <p>This DCP replaced the existing power supply with a DC/DC converter to eliminate the possibility of AC noise entering DC system in case of an inverter failure. Also, it removed the power resistor for DG governor control power and used DC/DC converter output instead.</p>	<p>It modifies existing internal wiring and resets the limit switch settings. This change improves MOV performance and system reliability, and it provides the operator with more accurate valve status information. No new equipment is being added, nor is any equipment being moved.</p> <p>This DCP did not introduce an unreviewed safety question. The equipment to be installed is seismically and environmentally qualified. The installation of the DC/DC converter prevents the DG speed sensing circuits from receiving false signals from AC interface signals which are affecting the DG starting sequence, rendering it unavailable for emergency operation. It improves system reliability and does not affect the capability of the Diesel Generator to operate as intended during accident conditions, nor does it introduce new systems or alter the purpose or function of existing systems.</p>
30E-SB-057	<p>This DCP modified the Supplementary Protection System (SPS) to open the M-G set output load contactors in order to provide diverse reactor trip device.</p>	<p>This DCP did not introduce an unreviewed safety question. This change provides conformance to 10 CFR 50.62 (ATWS Rule). The interface signal to the M-G set contactors (non-1E) is isolated from Supplementary Logic Assembly panels (1E) by an isolation relay in accordance with IEEE 384. This prevents any impact on the SPS (1E) in the event of a failure in the M-G sets control circuitry (non-1E).</p>
3PJ-RJ-047	<p>This DCP implemented the Core Operating Limit Supervisory System (COLSS) change required as a result of the Unit 3 Cycle 3 core configuration, and implemented a change to the COLSS Azimuthal Tilt algorithm to make the calculation of the Technical Specification azimuthal tilt limit dependent on the plant power level.</p>	<p>This DCP did not introduce an unreviewed safety question. The COLSS software program does not initiate any direct safety related function and is not required for plant safety. It is simply a monitoring system and has no effect on the actual values of the LCOs. This DCP merely updates COLSS so that it is consistent with the core arrangement in the new cycle, and the updated constants provided by Combustion Engineering are prepared in accordance with CE's</p>



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3PM-PC-026	This DCP replaced 1" globe valves with 1" ball valves in the drain funnel assemblies of the Refueling Cavity and UGS Pit in the Containment Building to minimize radioactive crud traps created by the globe valve design.	QA program. This DCP did not introduce an unreviewed safety question. Like the original globe valves, the ball valves are designed, fabricated and inspected to ASME Section III, Class 2 requirements. Radiological consequences associated with the failure of the valves are not increased due to this substitution. The new ball valves are as capable of providing the given pressure retaining function as the original globe valves to maintain the refueling water level.
3XM-SG-165	This DCP added a manual bypass arrangement to solenoid valves JSGAUY172 and JSGAUY175 of the downcomer feedwater isolation valves (FWIVs) JSGAUV172 and JSGAUV175. This will enable operators to bypass the instrument air solenoid valve during "A" DC power failure and reopen the downcomer FWIV expeditiously to restore feedwater flow to a steam generator.	This DCP did not introduce an unreviewed safety question. This change does not affect the function or characteristics of the downcomer FWIVs. A civil discipline review concluded that stress, load and seismic requirements are met. The installed bypass arrangement, a part of the instrument air system which controls the operation of the downcomer FWIVs, will not increase the consequences of a steam system piping failure, loss of feedwater flow, feedwater system pipe break or other accidents.
AOA-ZR-070	This DCP upgraded the Decontamination and Laundry Facility in Unit 1 by adding and removing various equipment and modifying systems.	This DCP did not introduce an unreviewed safety question. Consequences of an accident previously evaluated are not increased by the addition/removal of non-safety related components or the minor alterations to the radioactive waste drains inside this facility. The equipment serves no safety function. The decontamination processes conducted are similar to those in the original design and are by nature intermittent and not required to support plant operation in any mode.

