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U. S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D. C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Report of 10 CFR 50.59 Safety
Evaluations - June 1, 1987
through July 31, 1987
AECM-88/0030

In accordance with the requirements of 10 CFR 50.59(b), attached is System Energy Resources, Inc.'s report of changes, tests, and experiments determined to be reportable under the requirements of 10 CFR 50.59 for the period of June 1, 1987 through July 31, 1987. The remainder of those 50.59 safety evaluations determined reportable through the end of 1987 will be provided in a forthcoming submittal.

Yours truly,

ODK:bms
Attachment

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June 1, 1987 through July 31, 1987

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SRASN: NPE-87-005

DOC NO: DCP-86-0017

SYSTEM: F11

DESCRIPTION OF CHANGE: This change provides a fixture to store both the fuel bundle and control rod inserts of the Horizontal Fuel Transfer System.

REASON FOR CHANGE: To store both the fuel bundle and control rod inserts of the Horizontal Fuel Transfer System.

SAFETY EVALUATION: The rack has been designed (Ref. CC-N1F11-86018) to satisfy all applicable II/I criteria thereby preserving the integrity of the HFTS inserts as well as the cask storage pool in which the rack will be located. Load paths are specified in the DCP to limit potential drop locations to the cask storage pool. In addition, the referenced calc. documents that a load drop (i.e. rack into the cask storage pool) will have no adverse affects to plant safety. As such, this modification does not impact any accident scenario described in Section 15.7.5 or any other described in the FSAR.

There is no Tech. Spec. which directly governs the performance of equipment supports. The cask storage pool is physically connected to the spent fuel pool whose water level is governed by Tech. Spec. 3/4.9.9, however, the changes made will not alter the existing levels. In addition, Section 3/4.9.7 addresses limitations of crane travel with loads exceeding 1140 lbs. over the spent fuel pool. As previously stated, the DCP restricts travel over the spent fuel pool with loads exceeding 1140 lbs.

Thus, for the reasons stated above, implementation of the subject DCP does not create an unreviewed safety question, does not reduce the margin of safety as described in the basis for any Tech. Spec. or require a revision to the Tech. Specs. This DCP, does, however, require a revision to the FSAR to add the HFTS storage rack to Table 9.1-1 of the FSAR (Ref. FSAR Change Request 86/0039).

SRASN: NPE-87-043

DOC NO: DCP-83-0597-R00

SYSTEM: P33

DESCRIPTION OF CHANGE: This Design Change added flow indicator INP33-FI-R136 to monitor the total feedwater sample that flows through the final feedwater metal analysis filters.

REASON FOR CHANGE: This added indicator enables the Chemistry Department to know the exact volume of water passing through the filter so an accurate determination of the amount of suspended and dissolved solids in the sample stream can be tabulated.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. Accidents previously evaluated in FSAR Chapter 15.0 do not involve these instruments. The addition of this flow indicator in the Feedwater sample line will not affect a loss of feedwater accident or any other accident evaluated in the FSAR. The RFW metal analysis filter which is located inside panel B21Z001 which is non safety related and is a non seismic panel. This equipment is for water analysis only and does not interact with any equipment important to safety.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. The equipment modified by this DCP performs a sample function only. Its installation will not create a hazard nor affect any equipment important to safety.

There is no reduction in the margin of safety as defined in the basis for any technical specification as the Feedwater sample flow monitoring function is not addressed by the Technical Specifications.

SRASN: NPE-87-044

DOC NO: DCP-85-4070

SYSTEM: F16

DESCRIPTION OF CHANGE: This DCP fabricates and installs fuel cell plugs for the high density fuel storage racks.

REASON FOR CHANGE: To prevent damage to spent fuel bundles caused by inserting them into locations which did not have sufficient freedom of movement.

SAFETY EVALUATION: The fuel cell plugs are handled in the same manner as a normal fuel bundles. Therefore, there is no increase in the probability of an accident previously evaluated in the FSAR. Since the consequences of a fuel cell plug drop is enveloped by the fuel drop accident delineated in FSAR Section 15.7.6, there is no increase in the consequences of an accident previously evaluated in the FSAR. Since the installation of fuel cell plugs does not affect the function of any equipment important to safety, there is no increase in the probability or consequences of a malfunction of any equipment important to safety.

The installation of the fuel cell plugs does not create any new mode of operation and causes no seismic concerns. Therefore, there is no possibility of an accident or malfunction of equipment different from any previously evaluated. Since no change made by this DCP affects the requirement of any Technical Specification, there is no reduction in any margin of safety.

SRASN: NPE-87-085

DOC NO: DCP-85-0059

SYSTEM: T48

DESCRIPTION OF CHANGE: This DCP installs total run timers for Standby Gas Treatment System (SGTS) filter trains.

REASON FOR CHANGE: To record the total operation time of the filter trains.

SAFETY EVALUATION: The timers serve no safety function, have no effect on any plant system or operation, and are not required for the safe operation of the SGTS filter trains. Therefore, there is no increase in the probability or consequences of an accident or of a malfunction of equipment important to safety. Since no new failure modes are created, there is no possibility of an accident or equipment important to safety different from any previously evaluated. Because no LCOs or surveillance requirements for the SGTS filter trains are affected, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-122

DOC NO: DCP-85-0056

SYSTEM: U41

DESCRIPTION OF CHANGE: This Design Change Package (DCP) modified the Turbine Building Ventilation System by rerouting the conditioned air from fan coil unit N1U41B016-N to the Reactor Feedpump Turbine Room instead of the Turbine Building Railroad Bay.

REASON FOR CHANGE: This DCP was initiated to provide additional conditioned air to the Reactor Feedpump Turbine Room.

SAFETY EVALUATION: This DCP incorporated changes which were made to the Turbine Building Ventilation system into the appropriate documents in order to make the changes permanent. System U41 is a non-safety related system whose failure will in no way compromise any safety related system or component or prevent a safe reactor shutdown. Therefore, there is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report.

This DCP dealt with the modifications which were made to the Turbine Building Ventilation system by Temporary Alteration 85-008. The changes were made to a non-safety related system whose failure will not compromise any safety related system or components or prevent a safe shutdown of the plant. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report.

Implementation of this DCP did not reduce the margin of safety as defined in the bases for any Technical Specification. The design of the Turbine Building Ventilation system is not addressed in the GGNS Unit One Technical Specifications.

SRASN: NPE-87-125

DOC NO: DCP-85-0070

SYSTEM: P53

DESCRIPTION OF CHANGE: This change installs valves on strainers located below the instrument air dryer prefilter.

REASON FOR CHANGE: To allow wye strainers to be blown down when they are clogged and allow the water traps, downstream of the wye strainers, to operate properly and bleed down the water collected in the prefilter tank.

SAFETY EVALUATION: The original system operation has not been altered by this change. Additionally, the instrument air system has no safety-related function, nor will its failure compromise any safety-related component or prevent safe reactor shutdown. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety. Similarly, there is no possibility of an accident or of a malfunction of equipment important to safety different than previously evaluated in the FSAR. Since this portion of the instrument air system is not addressed in Tech Specs, and since it has not been utilized in computing a margin of safety, the margin of safety as defined in the Technical Specifications is not reduced.

SRASN: NPE-87-126

DOC NO: DCP-83-0008R0

SYSTEM: P45

DESCRIPTION OF CHANGE: This Design Change Package (DCP) plugged three out of thirteen floor drains in each of the off gas cooler condenser room and the regeneration room in the Radwaste Building (area 28, elevation 93' and 107') as shown in UFSAR Figure 9.3-14.

REASON FOR CHANGE: This change eliminated the possibility of Glycol entering into the Dirty Radwaste (DRW) drainage system which causes degradation of the resins in the Radwaste Demineralizers.

SAFETY EVALUATION: The P45 or P48 system operation and function will not change. The drains modified by this DCP meet all applicable design requirements and will not affect the function of the remaining drains. There is no safety related equipment located in these areas. The remaining open floor drains will prevent any major flooding of these areas. This design change did not create an increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report.

The modified drains meet all applicable design requirements and no safety related equipment is located in these areas. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report.

The P45 or P48 system has no safety function. The system is not addressed in the technical specifications and therefore has not been utilized in computing the margin of safety.

SRASN: NPE-87-130

DOC NO: DCP-85-4503R01

SYSTEM: M22

DESCRIPTION OF CHANGE: This DCP is for the installation and operation of a National 647A hydraulic crane at Elevation 208'-10 of the containment.

REASON FOR CHANGE: To operate during outages only when required to prevent the Polar Crane from becoming a critical path item.

SAFETY EVALUATION: Since FSAR commitments are followed in the design, there is no increase in the probability of an accident or of a malfunction of equipment important to safety. The addition of unqualified paint surface amounts to a negligible quantity, and hydraulic fluid use is consistent with its present use in fuel handling equipment. Suppression pool screen clogging potential is not increased and heat transfer capability in the Spent Fuel Pool is not decreased. Therefore, there is no increase in the consequences of an accident or malfunction of equipment important to safety. There are no new II/I seismic concerns, missile or jet impingement hazards. Hydraulic fluid for the crane has no known deleterious effect on the fuel or the pool heat transfer properties and is not flammable. The impact effects of heavy loads fall within the scope of previously observed effects. Therefore, there are no new accident scenarios and no new equipment malfunctions. Since the requirements of Technical Specification 3/4.9.7 are exceeded, this change does not reduce any margin of safety.

SRASN: NPE-87-135

DOC NO: DCP-81-0022R2

SYSTEM: F11

DESCRIPTION OF CHANGE: This change provides for permanent installation of the New Fuel Channeling Air Tugger.

REASON FOR CHANGE: This change makes the Air Tugger permanent, which had been temporarily installed.

SAFETY EVALUATION: The drop of a spent fuel shipping cask over the New Fuel Storage Vault bounds the drop of a channel over the New Fuel Storage Vault. Therefore, there is no increase in the probability or consequences of an accident previously evaluated in the FSAR. The New Fuel Channeling Air Tugger performs the same function on safety related fuel bundles as does the existing channel tool. There is no interaction with safety equipment in such a manner that could increase the consequences or probability of a malfunction of equipment important to safety. There is no possibility of a different type of accident since the drop of a spent fuel cask on to the New Fuel Storage Vault has been analyzed and bounds the drop of a fuel channel. Since there are no nuclear safety problems associated with the handling of new fuel bundles singly or in pairs, there is no possibility of a malfunction of equipment important to safety different from any previously evaluated in the FSAR. Since Technical Specifications do not address the handling of new fuel and no Technical Specification is impacted by this change, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-136

DOC NO: DCP-85-0061R0

SYSTEM: P44

DESCRIPTION OF CHANGE: This change installs annubar flow elements and flow indicators at various points in the Plant Service Water System.

REASON FOR CHANGE: To evaluate performance of PSW heat exchangers to determine when the tubes need to be cleaned.

SAFETY EVALUATION: The instruments added to the PSW system are for monitoring purposes only, and the PSW system has no safety design basis. Therefore, there is no increase in the consequences or probability of an accident or malfunction of equipment important to safety. The equipment added has no effect on any system function and operation, and there are no seismic II/I safety problems involved with any instrument tubing supports. Therefore, there is no increase in the probability of an accident or malfunction of equipment important to safety different from any previously evaluated in the FSAR. Since the instruments installed by this DCP are not addressed in Technical Specifications, there is no reduction in the margin of safety.

SRASN: NPE-87-139

DOC NO: DCP-82-0680R0

SYSTEM: M41

DESCRIPTION OF CHANGE: This change replaces flow switches in the heaters to the Containment Cooling Charcoal Filter Trains.

REASON FOR CHANGE: The old flow switches are not sensitive enough to detect low flow conditions and shut down the heaters if air flow falls below 2000 cfm, which is required to prevent coil overheating. The new ones are sensitive enough to perform this function.

SAFETY EVALUATION: This change does not affect system design function, compromise any safety function or system operation, or present any seismic II/I concerns. It restores the function intended by the vendor for the old switches. The failure of the Containment Cooling System (System M41) is described in the FSAR Section 9.4.7.3. FSAR Section 9.4.7.3 states that "Failure of the system will not compromise any safety-related system or component and will not prevent safe reactor shutdown." Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety. Nor is there a possibility of an accident or malfunction of equipment different from any previously evaluated. Since only the isolation function of the Containment Cooling System is mentioned in Technical Specifications, and since this change does not affect the isolation function, there is no reduction on the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-145

DOC NO: DCP-86-3013R0

SYSTEM: T48

DESCRIPTION OF CHANGE: This change removes a high temperature fan interlock in the SGTS Filter Trains Q1T48D001A and Q1T48D001B. The interlocks trip the fans on high-high temperature of 310 F in the charcoal filter bed. The existing alarms at 255 F and 310 F will be retained. Also, this change provides Class 1E power to the Fire Detection Cabinet from each respective ESF division, instead of the present arrangement of a single BOP source to both Filter Train Fire Detection Cabinets.

REASON FOR CHANGE: Based on corrective actions per MNCR 0431-86, the relays which provided the SGTS interlocks were removed from their trip functions. The change providing Class 1E power to the Fire Detection Cabinet is to provide separation in accordance with Reg. Guide 1.75 between Class 1E and non class 1E circuits by the exclusive use of 1E circuits within the Fire Protection Cabinets of the filter train.

SAFETY EVALUATION: The fan interlock does not perform a nuclear safety function and this change does not lessen the ability of the SGTS to perform its function. The SGTS charcoal bed high temperature alarms which function at 255 F and 310 F will be retained. The alarms operate well below the charcoal ignition temperature of 626 F. Additionally, since there is no credible means for non-mechanistic fire occurring in the charcoal bed, there is no fire protection requirement for an automatic trip of the fan. Also, manual actuation of the charcoal fire suppression system is unaffected. Therefore there is no increase in the probability or consequences of an accident previously evaluated in the FSAR. Since the interlock serves no safety function and deletion of the interlock precludes the chance of a malfunction from that circuit, there is no increase in the probability or consequences of a malfunction of equipment important to safety. Since the change does not affect the safety function of the SGTS and precludes an interaction from the Fire Detection Cabinet, there is no increase in the probability of equipment malfunction different from any previously evaluated.

Since there is no reduction in the operational capacity of the SGTS filter train to remove radioiodine in the event of a LOCA, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-149

DOC NO: Specification M-500.0R1

SYSTEM:

DESCRIPTION OF CHANGE: NPE Calculation MC-QSP64-86058 (Combustible Heat Load Calculation) superseded Bechtel Calculation 7.3.105-N (Combustible Heat Loads). The NPE calculation increased the assumed fill for random filled cable trays from 40% to 60% in most fire zones and revised other in situ combustibles and transient combustibles.

REASON FOR CHANGE: To reflect increased plant conservatism in the updated FHA and more accurately reflect actual plant conditions.

SAFETY EVALUATION: The postulated fire durations increased in some fire zones. However, none of the fire durations were found to exceed the ratings of the barriers or capabilities of the other fire protection measures as described in the previous revision to the FHA (M-500.0, Rev. 0). Therefore, the revisions to the assumptions used in the heat load calculations will not affect the ability to achieve and maintain safe shutdown in the event of a fire.

The FHA determines the consequences of a fire on the ability to achieve and maintain the plant in a safe shutdown condition. A single fire event resulting in the loss of one train of safe shutdown is an acceptable consequence, provided that the redundant train of safe shutdown remains free of fire damage (Ref. 10CFR50 Appendix R Section III.G.2). The changes to the FHA do not postulate the loss of more than one train of safe shutdown. Therefore, no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report was experienced.

The changes to the FHA do not introduce or create any other type of accident. Although the fire duration has increased in some fire zones, the duration has been determined to be within the capabilities of the fire protection measures as described in the previous revision to the FHA. Therefore, the changes to the FHA do not create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report.

The changes reflected in the FHA do not affect the limiting conditions for operation, applicability, surveillances or bases of the GGNS Technical Specifications. Therefore, the margin of safety defined in the bases is not reduced.

SRASN: NPE-87-151

DOC NO: DCP-87-0062

SYSTEM: C91

DESCRIPTION OF CHANGE: This DCP installed a fiber-optics link to tie the existing Prime 750 computer located in the plant computer room to the new Prime 9955 computer which is located in the Administration Building 2nd floor telephone room. BOP raceway 1BERW6XY was installed on elevation 148'-0" of the Control Building, in accordance with ES-01, to facilitate installation of the new fiber-optics cables. This DCP provides for the physical installation of the fiber-optics cable only and does not address termination of the cables. Exterior Control Building penetration CE-435B had to be opened to facilitate routing of the fiber optics cable. This penetration is considered a 3 psi tornado pressure boundary. Operational considerations are detailed in Section 8 of the DCP to insure the integrity of the pressure boundary is maintained as required by UFSAR Sections 3.3.2.2 and 3.8.4.1.1.5.

REASON FOR CHANGE: To provide Reactor Engineering the capability of monitoring reactor status from the Administrative Building.

SAFETY EVALUATION: This DCP is non-safety related and does not affect any system which mitigates an accident. No accident parameters or safety functions are affected, and no seismic II/I concerns are created. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment previously evaluated in the FSAR. No environmental, seismic, or operational requirements or specifications are affected by this change, and no safety related system, component, or structure is affected.

Therefore, there is no possibility of a new type of accident or malfunction of equipment important to safety. Since the fiber optics cable is routed in BOP raceway, and since no II/I hazards are created, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-153

DOC NO: DCIP-84-4030

SYSTEM: D17

DESCRIPTION OF CHANGE: This change reterminates the jumpers on Eberline normal range monitors, and removes the resistors and reterminates the jumpers on the accident range monitors.

REASON FOR CHANGE: To correct a situation in which the normal range (SPING-4) and accident range (AXM-1) monitors did not alarm when a check source was used to simulate overrange conditions on Eberline vent radiation monitors.

SAFETY EVALUATION: This change improves component reliability by bringing the alarms at desired setpoints. The components operate per design limits. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. Because this change corrects the malfunction of alarms, and does not cause another failure that is important to safety, there is no possibility of an accident or failure different from previously evaluated. Since this parameter is not addressed in Technical Specifications, there is no reduction in any margin of safety.

SRASN: NPE-87-155

DOC NO: MNCR-86-0470

SYSTEM: P47

DESCRIPTION OF CHANGE: This MNCR updated Drawing M-0052A in regard to the Plant Service Water (P47) system.

REASON FOR CHANGE: This update reflects the as-built current situation on the P&ID Drawing.

SAFETY EVALUATION: A PSW line was installed as a part of the startup testing program. Most of the piping is underground with no means of determining its exact routing since there were no installation drawings generated. Therefore, only the P&ID drawing was updated to show this line and its associated hardware.

This MNCR documented the required drawing change to the P47 system to reflect the as-built condition of the plant. This drawing change was software only and did not result in any operational or functional changes to the system. The P47 system has no safety function and its failure will not compromise any safety related components and will not prevent a safe reactor shutdown.

This MNCR does not provide for the creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

This MNCR did not result in any operational or functional changes to the P47 system or affect the Technical Specifications. Therefore, the margin of safety as defined by the Technical Specifications was not reduced.

SRASN: NPE-87-156

DOC NO: MNCR-86-0540

SYSTEM: P75

DESCRIPTION OF CHANGE: This MNCR regards the omission of the downstream isolation valves for P75-PDSN021A, B on P&ID M-1070A, B.

REASON FOR CHANGE: This MNCR updates P&ID M-1070 and FSAR Figures 9.5-11 and 9.5-12 to accurately reflect the as-built condition in the plant.

SAFETY EVALUATION: The addition of the valves on the P&IDs and the tagging of the valves in the field does not affect the P75 system.

These drawing changes do not create an increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report.

The creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report is not possible by the drawing update. Since no equipment is being installed, the margin of safety as defined in the Technical Specification Bases remains unchanged.

SRASN: NPE-87-157

JOC NO: MNCR-84-0562R0

SYSTEM: T41

DESCRIPTION OF CHANGE: This MNCR addressed low air flow rates in various areas served by the Auxiliary Building Ventilation System, T41. All areas which did not receive design air flow were evaluated.

REASON FOR CHANGE: This MNCR determined that all air flows were acceptable.

SAFETY EVALUATION: Table 3.11-1 of the UFSAR was updated to reflect a normal temperature of 95 F for the Containment Exhaust Filter and Vent Room, 1A406. Per Bechtel Calculation 3.3.45-N, Revision 0, the temperature in room 1A406 will remain approximately 95 F with the air flow presently being supplied by the Auxiliary Building Ventilation System. This room contains no equipment governed by 10CFR50.49. The equipment in the room was evaluated and it was determined that an ambient temperature of 95 F would not damage or prevent the equipment from performing its design function.

This MNCR determined that there was no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. Room 1A406 contains no safe shutdown equipment. An ambient temperature of 95 F in the room is within the Technical Specification Temperature Limit, and will not cause damage to any equipment or prevent any equipment in the area from performing its design function.

This MNCR did not create the possibility of an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. Room 1A406 contains no safe shutdown equipment. Raising the ambient temperature in the room from 80 F to 95 F during normal plant operation will not affect the operability of any equipment required to help mitigate the consequences of an accident. The only safety related components in the area are electrical cables and raceways. The electrical cables are rated for service in a 194 F environment; therefore, raising the ambient temperature in room 1A406 from 80 F to 95 F will not adversely affect the operability of the cables.

This MNCR does not reduce the margin of safety as defined in the basis for any Technical Specification. An ambient temperature of 95 F in Room 1A406 during normal plant operation is within the temperature limit which is specified in the Technical Specifications for general areas in the Auxiliary Building.

SRASN: NPE-87-158

DOC NO: MNCR-86-0618R0

SYSTEM: P66

DESCRIPTION OF CHANGE: This MNCR changes one of two root valves, SP66FX04, on P&ID M-0034A to SP66FX005. This is only a drawing change. This is not a hardware change.

CHANGE: This MNCR corrected P&ID M-0034A to reflect valves SP66FX004 and SP66FX005.

SAFETY EVALUATION: The original system operation has not been altered, only valve numbers were changed. Therefore, there was no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report.

The original system operation has not been altered, only valve numbers were changed. Therefore, there was no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

The Domestic Water System is not addressed in the GGNS Technical Specifications and has not been utilized in computing a margin of safety. Therefore, the margin of safety has not been affected.

SRASN: NPE-87-159

DOC NO: MNCR-86-0586

SYSTEM: P45

DESCRIPTION OF CHANGE: This MNCR changes valve N1P45F094 from a closed position to an open position for normal operation on P&ID M-1094E. This was a software change only. No hardware or operating conditions were altered.

REASON FOR CHANGE: This MNCR corrected P&ID M-1094E to accurately reflect valve N1P45F094 in the open position for normal operation.

SAFETY EVALUATION: This MNCR is for a drawing change only. UFSAR Figure 9.3-9 and P&ID M-1094E were corrected to show valve N1P45F094 in the open position for normal operation.

The system operation has not been altered. The floor and equipment drain system is not considered to be safety related per Section 9.3.3.3.c of the UFSAR. Failure of this system will not compromise any safety related component and will not prevent safe reactor shutdown. Therefore, there is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report.

Opening valve F094 does not alter the system operation, and failure of this system will not compromise any safety related component and will not prevent safe reactor shutdown. Therefore, there was no possibility of creating an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

This portion of the floor and equipment drain system is not addressed in the GGNS Technical Specification and has not been utilized in computing a margin of safety. Therefore, the margin of safety is not affected.

SRASN: NPE-87-160

DOC NO: FSAR-CR-87-0024

SYSTEM:

DESCRIPTION OF CHANGE: This change replaces AWS D1.1 Visual Acceptance Criteria For Structural Welds with NCIG (Nuclear Construction Issues Group) -01, Rev. 2 Visual Inspection Criteria For Structural Welds which are appropriate for nuclear applications.

REASON FOR CHANGE: This change provided nuclear applications criteria for weld visual inspection for nuclear structures.

SAFETY EVALUATION: AWS D1.1, Weld Inspection Criteria, were written for commercial applications and are inappropriate for nuclear applications. As a result, the Nuclear Construction Issues Group (NCIG) was created for development of a weld visual inspection acceptance criteria appropriate for nuclear structures where control of welding is per AWS D1.1. The results of the NCIG were two documents: NCIG-01 (Rev. 2) and NCIG-03 (Rev. H); Visual Weld Acceptance Criteria For Structural Welding At Nuclear Power Plants and Training Manual For Inspectors Of Structural Welds At Nuclear Power Plants Using The Acceptance Criteria Of NCIG-01 respectively.

In June 1985, the Nuclear Regulatory Commission (NRC) reviewed the "Visual Weld Acceptance Criteria for Structural Welding at Nuclear Power Plants" (VWAC, Rev. 2) proposed by the NCIG and concurred. In addition, the NRC emphasized the necessity for "uniform training." NCIG-03 provides the training guidelines for inspectors, working in accordance with NCIG-01.

No increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report was experienced because the NRC approved Visual Inspection Acceptance Criteria, NCIG-01, Rev. 2, is a technically equivalent or superior alternative to the existing AWS D1.1 Visual Inspection Criteria.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report because the NRC approved Visual Inspection Acceptance Criteria, NCIG-01, Rev. 2, is a technically equivalent or superior alternative to the existing AWS D1.1 Visual Inspection Criteria.

As the NRC approved Visual Inspection Criteria, NCIG-01, Rev. 2, does not form the basis for any Technical Specification, no reduction in the margin of safety as defined in the basis for any Technical Specification is possible.

SRASN: NPE-87-161

DOC NO: FSAR-CR-87-0027

SYSTEM:

DESCRIPTION OF CHANGE: FSAR-CR-87-0027 deleted "American Welding Society, AWS D1.3, 1978, Specification For Welding Sheet Steel In Structures" from UFSAR Section 3.8.4.2.

REASON FOR CHANGE: AWS D1.3, 1978, was not used in construction of GGNS. AWS D1.1 - 1972 Edition was/is used in welding criteria at GGNS.

SAFETY EVALUATION: American Welding Society Standard, AWS D1.3-1978 Edition; "Specification for Welding Sheet Steel in Structures" was not used in the construction of Grand Gulf Nuclear Station (GGNS). Structural sheet steel was welded in accordance with AWS D1.1 - 1972 Edition; "Structural Welding Code" which remains in effect. It is not necessary to implement AWS D1.3-78 as AWS 1.1-72 permits welding of all situations addressed by AWS D1.3-78. As AWS D1.3-78 was never implemented, its deletion is editorial in nature.

There was no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report as GGNS was constructed using AWS D1.1-72 and AWS D1.3-78 was never implemented.

There was no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report as no physical changes occurred in this editorial change.

There is no reduction in the margin of safety, as defined in the Technical Specification will occur because the proposed change does not revise any physical situation or quality controls.

SRASN: NPE-87-162

DOC NO: MNCR-87-0184

SYSTEM: P66

DESCRIPTION OF CHANGE: This MNCR changed the Domestic Water System P&ID to indicate the rerouted pipe identified by QDR 241-87.

REASON FOR CHANGE: This MNCR was initiated to evaluate the rerouted pipe identified by QDR 241-87 and replace the temporary Thaxton Plug with a permanent plug.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report because the Domestic Water System operation and function does not change. The piping and pipe supports meet all applicable design requirements and will function in their intended manner.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report as the Domestic Water System has no safety related function per Section 9.2.4.3 of the UFSAR. Failure of this system will not compromise any safety related component and will not prevent safe reactor shutdown. The piping and pipe supports are non-safety related and meet all applicable design requirements and will function in their intended manner.

The Domestic Water System is not addressed in the GGNS Technical Specifications and has not been utilized in computing the margin of safety. Therefore the margin of safety is not affected.

SRASN: NPE-87-163

DOC NO: DCIP-85-4013

SYSTEM: P65

DESCRIPTION OF CHANGE: This change provides instructions for the installation of a 2'x 2', 1} hour fire rated access panel.

REASON FOR CHANGE: To provide a means of ingress to electrical chase OC618 to allow smoke detector SP5XSN522 to be tested and serviced as needed.

SAFETY EVALUATION: There is no accident scenario in Chapter 15 of the FSAR which governs the performance of fire barriers. Fire Barriers must be designed to withstand an exposure fire as described in Appendix 9A of the FSAR. The panel to be installed contains a "B" label from UL, thereby, satisfying the requirements of Appendix 9A. The affected CMU wall (C-177-07) has been analyzed to ensure it continues to meet all appropriate II/I design requirements. Additionally this change does not affect any equipment used in mitigating the consequences of an accident previously described in the FSAR. Thus, implementation of the subject DCP will not create an unreviewed safety question, will not reduce the margin of safety as described in the basis for any Tech. Spec. & will not require a revision to the FSAR or Tech. Specs.

SRASN: NPE-87-173

DOC NO: OQAM Policy 3

SYSTEM:

DESCRIPTION OF CHANGE: In this Safety Evaluation, the responsibility for reviewing Nuclear Plant Engineering (NPE) design documents for compliance with the Operational Quality Assurance Program is transferred from the Manager of Nuclear Site Quality Assurance to the Director of NPE.

The quality of the review will not be effected, because the scope and criteria will be unchanged. Key personnel responsible for the development and/or implementation for the QA review of NPE design documents have been transferred from QA to NPE where they will be responsible for control of the review function. Any additional personnel required for performance of review will be adequately trained and qualified by one of the above referenced personnel under the NPE program and procedures.

REASON FOR CHANGE: This change will increase quality awareness in NPE as well as aid in the improvement in quality design. It will also allow for greater independence for the Quality Assurance (QA) organization.

SAFETY EVALUATION: Because the probability or consequences of a accident is not dependent on the reviewing organization, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety. Nor is there a possibility of an accident or malfunction of equipment different from any previously evaluated in the FSAR. Since all requirements of Technical Specifications remain in force, there is no reduction in any margin of safety.

SRA5N: NPE-87-187

DOC NO: MNCR-84-0633

SYSTEM: P75

DESCRIPTION OF CHANGE: This MNCR identified the cause of a crack in a cylinder head cooling water jacket of Division I Diesel Generator as corrosion fatigue. The water chemistry was changed from a nitrite base to a molybdate base.

REASON FOR CHANGE: The previous nitrite based chemistry program had a number of chemistry deficiencies which contributed to ineffective corrosion protection for the mixed metallurgies in the Diesel Jacket Water System.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The change in the Diesel Generator (D/G) water chemistry reduced the incident of corrosion, thus enhanced the reliability of the D/G and (1) has no impact on the probability of occurrence of any accident in the UFSAR; (2) the consequences of accidents described in the UFSAR were reduced; (3) has no impact on the consequences if a D/G malfunction should occur.

Improving the D/G reliability by changing the standby D/G water chemistry did not create any new accidents or new failure modes for equipment important to safety as previously evaluated in the UFSAR.

By improving the standby D/G reliability the margin of safety as defined in the basis for any technical specification was not reduced.

SRASN: NPE-87-213

DOC NO: NPEFSAR-86-0089R0

SYSTEM: E51

DESCRIPTION OF CHANGE: MNCR 0113-86 was issued to document a potential nonconformance with the requirements of 10CFR50, Appendix A, G.D.C. 56, for containment penetrations 29 and 85. The MNCR stated that the inboard isolation valves (Q1P60F010 on penetration 85 and Q1E51F077 and Q1E51F068 on penetration 29) are flexible-wedge gate valves which have a test connection between the wedge discs to allow pressurization between the seats during local leak rate testing. The outboard seat is tested in the correct direction for containment isolation, but the inboard seat is tested in the reverse direction against potential accident pressure, which may not be an equivalent or conservative test condition.

Interim Disposition No. 1 to MNCR 0113-86, required the pipe caps downstream of valves Q1P60F034, Q1E51F257, and Q1E51F258 to be seal welded in order to provide a third redundant boundary.

An analysis was performed (Reference Bechtel Calculation 8.7.03, Rev. 0) to determine the effect that containment accident pressure has on the integrity of the flexible wedge disc. This analysis demonstrated that pressure applied in the accident direction does not deflect the disc off the seat face due to the available stem thrust preload. Due to the wedging effect, the application of low pressure in either direction will not cause deflection from the seats. As a result, any leakage measured during testing in the reverse direction can be attributed to other variables such as seat face imperfections, incorrect torque switch settings, etc..

It was therefore concluded that the current test method was equivalent to testing the inboard side of the wedge from the containment and meets the requirements of 10CFR50, Appendix J. Therefore, credit was taken for the inboard seat being a containment barrier.

The results of the analysis confirmed that the original design met the design requirements of 10CFR50, Appendix A, G.D.C. 56 and ANSI N271-1976.

REASON FOR CHANGE: The purpose of FSAR CR No. NPEFSAR-86/0089 is to revise Table 6.2-49 to provide clarification/justification concerning the current containment penetration configuration, and test procedure.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report. Material Non-Conformance Report (MNCR) 0113-86 describes a potential nonconformances with the

SAFETY EVALUATION: (Cont'd)

requirements of 10CFR50, Appendix A, G.D.C.56, for containment penetrations 29 and 85. Specifically, the MNCR discusses potential discrepancies with the current local leak rate test procedure used for valves Q1P60F010, Q1E51F068, and Q1E51F077. This MNCR has necessitated a detailed analysis of the current test procedure for these valves. This analysis (Reference Bechtel Calculation 8.7.03, Rev. 0) has provided assurance that the current test method is acceptable and satisfies 10CFR50, Appendix J requirements. This analysis has provided assurances that the isolation barriers have been properly tested and thus, that the isolation barriers will properly function in the event of an accident.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report. UFSAR Table 6.2-49 is being revised to provide clarification/justification concerning the acceptability of the current test procedures.

The net effects of MNCR 0113-86 are software only changes; UFSAR Table 6.2-49 will be revised to provide clarification/justification for the current local leak rate test procedures used for valves Q1P60F010, Q1E51F068, and Q1E51F077. These changes will not affect the operation of any system or degrade any equipment which would reduce the margin of safety as defined in the basis of any technical specification. Therefore, these changes will not reduce the margin of safety as defined in the basis of any technical specification.

SRASN: NPE-87-214

DOC NO: NPEFSAR-86-0098R00

SYSTEM: P64

DESCRIPTION OF CHANGE: UFSAR Subsections 6.2.3.2 and 6.2.3.3 address lines which penetrate the secondary containment boundary. Most of the lines 2 1/2 inches or greater in diameter which penetrate the secondary containment boundary are equipped with redundant isolation valves. The lines not equipped with redundant isolation valves have one ASME Section III, Class 3, air-operated isolation valve.

The UFSAR description of the lines with only one secondary containment isolation valve requires revision to add two four-inch Fire Protection System (P64) lines. These fire protection lines are provided with one normally closed ASME Section III, Class 3 motor-operated isolation valve (Q1P64FA10A & B). These four inch lines provide the capability to bypass the secondary containment isolation valves for the main fire water supply lines to the auxiliary building (10"-HBC-190 and 10"-HBC-191) should it not be possible to open one of the isolation valves on the ten inch supply lines.

REASON FOR CHANGE: UFSAR Subsections 6.2.3.2 and 6.2.3.3 require revision to add two four-inch fire protection lines to the description of secondary containment penetrations with only one isolation valve in order to reflect the as-built condition of the plant.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The proposed UFSAR changes update the discussion of lines penetrating secondary containment with only one isolation valve to include two four-inch fire protection system lines. The secondary containment isolation valves for these lines are normally closed, have position indication provided in the control room, and have their position periodically verified as required by the surveillance requirements in Technical Specification 3/4.7.6.1. These fire protection system secondary containment isolation valves are not the cause of any accident evaluated in the UFSAR. The only situation for which these lines might be opened is to mitigate a fire. Since a fire is not postulated to occur concurrently with an accident or other event (e.g., earthquake, tornado, etc.) as noted in NRC Branch Technical Position ASB 9.5-1, Section C.1.d.(1), the fire protection lines would only be opened during an event (i.e., a fire) which does not require secondary containment integrity for mitigation. However, if one of these lines opened during an event requiring SGTS operation, the SGTS would still be able to perform its function since, as discussed in UFSAR Section 6.2.3, it has the capacity to overcome the leakage through one unisolated four inch penetration.

SAFETY EVALUATION: (Cont'd)

It is possible that one of these fire protection valves could spuriously open due to a hot short. However, the position indication in the control room would alert the operators to the situation and corrective action would be taken. Based on the above discussion it is concluded that fire protection system valves Q1P64FA10A & B will be closed whenever secondary containment integrity is required.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

The proposed UFSAR changes update the discussion of lines penetrating secondary containment with only one isolation valve to include two four inch fire protection system lines. These four inch lines provide the capability to bypass the secondary containment isolation valves for the main fire suppression system lines entering the auxiliary building. The opening, closing, failure to open or close, etc. of the bypass line isolation valves will not affect the operation of the auxiliary building Fire Suppression System or the SGTS. Water to the auxiliary building Fire Suppression System can still be provided by the main ten inch lines if the bypass line valve is closed. The SGTS can overcome the leakage through an unisolated four inch line if the bypass line valve is open, as discussed in UFSAR Section 6.2.3.

The proposed changes to the UFSAR update the discussion of lines penetrating containment with only one isolation valve to include two four-inch fire protection system lines. The secondary containment isolation valves for these lines are normally closed, have position indication provided in the control room, and have their position periodically verified as required by the surveillance requirements in Technical Specification 3/4.7.6.1. Since the surveillance procedures associated with this Technical Specification ensure that these lines are isolated when required, the margin of safety defined in the bases for this Technical Specification will not be reduced by the proposed UFSAR changes.

Technical Specification 3/4.6.6.1 addresses the requirements for maintenance of secondary containment integrity. Since the surveillance procedures associated with Technical Specification 3/4.7.6.1 ensure that the two four-inch fire protection lines are isolated under normal conditions, the secondary containment integrity requirements of this Technical Specification will be met. Therefore, the margin of safety defined in the bases for this Technical Specification will not be reduced by the proposed UFSAR changes.

SRASN: NPE-87-215

DOC NO: NPEFSAR-87-0058

SYSTEM: P64

DESCRIPTION OF CHANGE: QDR 287-86 identified a discrepancy between drawings M-0035B and M-0146K. Drawing M-0035B, Rev. 24 shows the 4" JBD-1055 (Secondary Containment Isolation Bypass) connected to the 10" JBD-202 between valve Q1P64F283A and valve F194. Drawing M-0146K, Rev. 19 shows the 4" JBD-1055 connected to the 10" JBD-202 between valves F194 and F195. Drawing M-0146K has been confirmed to represent the plant configuration. Therefore, drawing M-0035B was revised. UFSAR Figure 9.5-2 was also revised.

REASON FOR CHANGE: UFSAR Figure 9.5-2 was revised to accurately represent the plant configuration.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. This change does not affect P64 design basis and meets applicable material and construction standards. This change does not bypass any system design feature and will not cause any component to operate outside design limits. Also, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

There is no reduction in the margin of safety as defined in the basis for any technical specification. This change does not affect system operation or function. GGNS limiting conditions for operation nor surveillance requirements required by Technical Specifications are affected.

SRASN: NPE-87-217

DOC NO: MNCR-0707-86

SYSTEM: P41

DESCRIPTION OF CHANGE: The interim disposition to MNCR-0707-86 evaluated the pipe wall thickness for various lines in the Standby Service Water (SSW) system Basin "A". During the inspection of the piping in the SSW Basin during RFO1, MIC (Microbially Induced Corrosion) deposits and gross coating failures were found. A stress analysis was performed utilizing the measured wall thicknesses, maximum operating pressure and OBE/SSE loadings. It was found that although pipe thickness in three places was less than that required for 40 year operation, all ASME Section III codes are met for short term operation (about 90 days). The structural integrity of all other piping identified in this MNCR was not affected.

REASON FOR CHANGE: To evaluate any areas where wall thickness may be thin due to MIC deposits on SSW piping.

SAFETY EVALUATION: The ASME Section III Code allowables are met for short term operation without affecting the structural integrity of the piping system. For short term operation, the piping system meets all applicable requirements and will function in its intended manner. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety. Nor is there a possibility of an accident or malfunction different from any previously evaluated. Since for short term operation the structural integrity of the piping system is not affected and the system meets all applicable design requirements, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-218

DOC NO: MNCR-84-829-2ND SUB.

SYSTEM:

DESCRIPTION OF CHANGE: This change revises the Fire Hazards Analysis to incorporate MNCR-829-84. After the MNCR was issued, it was dispositioned by DCP-84-3223, which provided 3-hour fire barriers for raceways 1BXRW602 and 1BXRW605. This DCP was later cancelled by PMI-86-0308 due to the implementation of DCPs 81-5003 and 85-3098, which provide means for alternate shutdown in the event of a control room fire. Therefore, the 3-hour fire barriers are no longer needed.

REASON FOR CHANGE: To revise the Fire Hazards Analysis to reflect the deletion of the requirement for the 3-hour fire barriers.

SAFETY EVALUATION: Alternate shutdown capabilities exist after implementation of DCPs 81/5003 and 85/3098. DCPs 81/5003 and 85/3098 mitigate the consequences of a Control Room Fire. Therefore, there is no increase in the probability of an accident previously evaluated in the FSAR.

No accident parameters are modified and no existing safety functions are being modified by this MNCR. Implementation of DCP 81/5003 and 85/3098 ensures safe shutdown of the plant in the event of a fire within Fire Zones OC503 and OC504. Therefore, there is no increase in the consequences of an accident previously evaluated in the FSAR.

This MNCR will not affect operation of safety related equipment. DCPs 81/5003 and 85/3098 ensure that alternate shutdown capability exists in the event of a Control Room fire. Therefore, there is no increase in the probability of a malfunction of equipment previously evaluated in the FSAR. Since all circuits required for safe shutdown are isolated from the Control Room in the event of a Control Room fire after implementation of DCPs 81/5003 and 85/3098, there is no increase in the consequences of a malfunction of equipment important to safety previously evaluated in the FSAR. Since implementation of DCPs 81/5003 and 85/3098 mitigate the consequences of a fire within Fire Zones OC503 and OC504, there is no increase in the probability of an accident different from any previously evaluated in the FSAR. This MNCR does not affect any environmental, seismic, or operational requirements or specifications. Therefore, there is no possibility of a malfunction of equipment different from any previously evaluated in the FSAR. Since alternate shutdown capability in the event of a fire is provided by DCPs-81-5003 and 85-3098, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-219

DOC NO: MNCR-86-1197

SYSTEM: P75

DESCRIPTION OF CHANGE: MNCR 1197-86 documents the deficiencies noted on NRC Inspection Reports 50-416/86-26 and 50-417/86-04 paragraphs 7a, 7b, and 7d. These deficiencies consist of incorrect P75 valve numbering and omission of root valves on P&IDs. These drawing nonconformances are alleviated by implementing EAR-87/00042 and NPESC-87/0046.

REASON FOR CHANGE: This change corrected rSAR Figures: 9.5-11, 9.5-11a, 9.5-12, and 9.5-12a.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The standby diesel generator's components are not affected by MNCR 1197-86. The drawing changes do not affect the ability of the system to perform its safety function.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. The omission of root valves on P&IDs and the incorrect numbering do not create the possibility of an accident of a different type. The ability of the system to perform its safety function is not affected.

Since no equipment is being installed, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-221

DOC NO: MNCR-86-1055R02

SYSTEM: T46

DESCRIPTION OF CHANGE: During flow balancing of SSW Loop B, a flow of 28.3 GPM was measured to cooler Q1T46B003B-B which serves ESF Switchgear Room 1A308. Calculation 3.3.39-Q, Rev. 2, demonstrates that the Room 1A308 heat load (cooler Q1T46B003B-B) is 63,734 BTUH as compared to the assumed design basis heat load of 124,300 BTUH. This was calculated assuming a LOCA with offsite power available in the room and a LOP/LOCA in all other areas. In the event of a LOCA with off-site power available, the loads are greater than in the LOP/LOCA case. However, during such an event the Tech. Support Center will be manned and its Staff will be available to advise the Operations Staff of actions that may be taken to substantially reduce these loads. Therefore, the LOP/LOCA case is the most limiting design basis.

American Air Filter, the cooler vendor, has established a minimum required flow of 23.3 GPM to maintain minimum design velocities for an identical cooler, Q1T46B003A-A. Furthermore, with a flow rate of 23.3 GPM the cooler is capable of removing 100,983 BTUH. Based on this, a "minimum acceptable design flow" of 23.5 GPM may be established for cooler Q1T46B003B-B.

REASON FOR CHANGE: This MNCR established the "minimum acceptable design flow" of 23.5 GPM for cooler Q1T46B003B-B.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The described changes ensure that existing heat loads in room 1A308 are met. Per the Technical Specifications Table 3.7.8-1 and UFSAR Table 3.11-1, the ESF Switchgear Rooms are required to be maintained at or below 104 F. The overall results of this change ensure temperature limits will be maintained. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. Also, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-222

DOC NO: MNCR-83-740-503R00

SYSTEM: C85

DESCRIPTION OF CHANGE: Peak Recording Accelerographs (PRA), 1C85-XR-R011, R012, R013, and R014 located in the drywell on the "A" Main Steam line, "B" Recirculation Loop, LPCS line and the HPCS line were found to have been rendered in-serviceable. SERI submitted to the NRC, for their review and concurrence, a technical justification for the deletion of these PRAs on the reactor piping. This justification stated that the PRAs are not suitable for the installation on a piping system which is subjected to frequent transients other than seismic transients. Therefore, the PRAs do not serve any meaningful purpose for post-seismic damage evaluation. Additionally, it was stated that there are sufficient seismic instruments which will provide the required information for post-seismic damage evaluation.

REASON FOR CHANGE: Per this submittal to this MNCR, the disposition is being revised to state that the PRAs are to remain installed and that no operability or functional requirements for the PRAs are required. . . . abandoning of the PRAs will not produce any new safety concerns, since it has been determined that no meaningful data can be obtained from the PRAs and no change is being made to its installation configuration.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The subject PRAs are a non-safety related passive device used to provide information for post-seismic damage evaluation. The deletion of their functional and operational requirements will not impact the operation of the plant, since the information provided by the PRAs has been determined to be meaningless and that the information can also be derived from existing seismic instrumentation. Also, the abandoning of the PRAs in place will not impact plant operation since no change to their installation configuration is being made. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. Also, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-223

DOC NO: MNCR-86-0642-R01

SYSTEM: T46

DESCRIPTION OF CHANGE: The safety evaluation justified plant operation in Mode 4 or 5, with the fuel pool heat exchanger serviced by the SSW system loop B during a postulated DBA-LOCA coincident with loss of offsite power for the duration of the first refueling outage or until design flow rates were established to the ESF electrical switchgear room coolers.

REASON FOR CHANGE: To justify plant operation in Mode 4 or 5 with SSW loop A inoperable and below design SSW flow rates for certain ESF electrical switchgear room coolers.

SAFETY EVALUATION: Since this equipment only serves to mitigate the consequences of a LOCA, there is no increase in the probability of an accident or malfunction of equipment previously evaluated in the FSAR.

The Standby Service Water (SSW) primary safety function is to provide heat removal from plant systems required for safe plant shutdown. The reported flows (some less than design flowrates) do not impair the SSW system from performing this safety related function. In addition, the testing described in the fourth interim disposition of MNCR 0642-86 confirms design flow to the fuel pool heat exchanger and fuel pool cooling pump room cooler and thereby ensures that this SSW mode does not have an adverse effect on this safety function.

SSW pump operation has not degraded, as confirmed by the recent ASME Section XI pump performance tests and by the more recent test data taken during the problem investigation. Measured SSW pump flow rates confirm that a significant system-wide blockage problem does not exist. Flow test data confirm that design flow rates will be delivered to the RHR and fuel pool heat exchangers. Monthly surveillance data on the Div. II Diesel Generator jacket water and lube oil temperature is trended and reviewed for abnormal degradation.

During normal operation the Control Room air conditioning units see significant heat loads, and degraded performance resulting from low flow would be detected by normal temperature surveillances. Currently, there is no evidence of a degradation of air conditioning unit performance.

While the ESF electrical switchgear room cooler condition has not been specifically analyzed previously in the FSAR, an engineering assessment was conducted to ensure that there would be no increase in consequences of an accident or probability of malfunction of equipment important to safety.

SAFETY EVALUATION: (Cont'd)

The safety concern is the operability of required safety related components in these rooms in the event of an accident or transient involving loss of off-site power resulting in elevated temperatures. These components were evaluated, and the most limiting component was determined to be able to withstand a 140 F environment for the required 100-day Post-LOCA period. The 140 F limit was developed from documented equipment qualification test reports. This higher than design post-accident temperature would have no impact on the component safety function. It would however, have an accelerated thermal aging effect not previously accounted for that would reduce the qualified life of the affected components to less than 40 years. However, this potentially reduced service life has no adverse safety impact during the term of this safety evaluation.

This assessment confirms that even if the 104 F post-accident design temperatures were exceeded, there remains significant design margin before there would be the potential for any adverse safety consequences. In addition, a more realistic assessment of certain ESF switchgear room Post-LOCA heat loads with the less than design flow rates results in expected peak room temperature which are still less than 104 F. Therefore, there is no increase in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.

In this assessment each ESF electrical switchgear room supplied by SSW loop P was reviewed to determine the minimum required flowrate to each room cooler to maintain the room temperature below the 140 F Post-LOCA design temperature. This assessment determined that with this minimum required flowrate, including an additional 10% reduction in cleanliness, Post-LOCA peak room temperatures did not exceed 104 F. Based on this assessment the fourth interim disposition of MNCR 0642-86 provides new threshold minimum flowrates as the acceptance criteria for the SSW loop B flow test with the fuel pool heat exchanger and fuel pool cooling pump room cooler valved in. For these reasons, there is no increase in the probability of a new type accident or equipment malfunction.

The system configuration utilized to assess flow requirements was conservatively based on a postulated DBA-LOCA plus loss of off-site power with all essential auxiliaries on line. In this configuration the non-safety drywell chiller, CCW heat exchangers, and instrument air compressor tie-ins to loop B are isolated and by design are locked out as long as a LOCA signal is present. Alignment of drywell chillers, CCW heat exchangers and instrument air compressors to SSW is possible by design only after the LOCA signal is cleared.

SAFETY EVALUATION (Cont'd)

A caution has been added to operating procedures advising the operator that if SSW is valved into the Drywell Chillers under LOCA conditions, higher ESF switchgear room temperatures may result.

In addition, in this system configuration, the fuel pool heat exchanger is serviced by the SSW system. The addition of this 1080 gpm load has not impacted the overall SSW flow balance performed in the Fall of 1985. As previously stated in the description, the overall SSW flow balance was performed with the system in the LOF configuration with a SSW supply of 1080 gpm to the fuel pool heat exchanger, and a combined SSW supply of 1500 gpm to the instrument air compressor, the drywell chillers, and the CCW heat exchangers. The absence of the 1500 gpm load represents an additional design margin for SSW loop B, since the increased discharge head of the modified pump installed in the Fall of 1985 has been demonstrated to supply fuel pool heat exchanger flow and all other essential safety related loads simultaneously.

Valving in the fuel pool heat exchanger and fuel pool cooling pump room cooler to perform the SSW loop B flow test is considered justified, given the demonstrated margin in SSW loop B pump performance, the anticipated minor effect this will have on ESF electrical switchgear room cooler flows, and the relatively large flow margins in these rooms above the acceptable levels. However, if the test data reveals any flow rates below the acceptable levels, the fuel pool heat exchanger and fuel pool cooling pump room cooler will be valved back out pending further engineering evaluation.

Readjustment of flow to the coolers has not appreciably impacted the overall SSW flow balance. Key system pressure points will be taken in the "as-found" valve lineup and will be correlated to the "as-left" valve lineup.

Special precautions will be taken to ensure that the fouling of these components is monitored and evaluated for evidence of degradation in performance. Temporary pressure gauge readings will be taken at the inlet and outlet of each ESF Switchgear Room cooler daily and compared to baseline data while the units are on PSW. The parameters will be evaluated to ensure that degradation in performance is quickly identified and corrected. The daily readings will also ensure that no adverse consequences such as minor leakage occur due to the tie-in of these temporary instruments.

For these above reasons there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-226

DOC NO: MNCR-86-1136

SYSTEM:

DESCRIPTION OF CHANGE: This 10CFR50.59 evaluation demonstrates that safe operation can be accomplished with FPCCU pump room coolers Q1T51B007A-A and B-B. The FPCCU pump room will be maintained at temperatures no greater than 107 F with a failure of the normal Auxiliary Building HVAC system.

REASON FOR CHANGE: To make disposition of MNCR 1136-86-5th and show that safe operation can be accomplished in the FPCCU room with FPCCU pump room coolers Q1T51B007A-A & B-B available and the normal Auxiliary Building HVAC system failed.

SAFETY EVALUATION: The changes will not affect the design bases as currently described in the UFSAR. In the event the normal Auxiliary Building HVAC system fails, the FPCCU pump room will be maintained at a temperature less than 107 F. The room contains no 10CFR50.49 equipment. In addition the Class 1E electrical equipment in the room has been shown to operate in temperatures up to 40 C with a 10% margin. Therefore this change will not increase the probability or consequences of an accident or malfunction of equipment important to safety. Nor is there a possibility of an accident or malfunction of equipment different from any previously evaluated. Since there is no 10CFR50.49 environmentally qualified equipment in the FPCCU pump room and since no safety function is adversely affected, there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: NPE-87-227

DOC NO: MNCR-87-102R00

SYSTEM:

DESCRIPTION OF CHANGE: This MNCR per the requirements of Specification M-500.0 (Fire Hazards Analysis), installed a one hour Thermal Science Inc. (TSI). Fire Barrier on Raceway 1BARM6YC in Fire Zone OC402 in accordance with ES-02, Rev. 1. Raceway 1BARM6YC contains Cable 1APY89061 which is a power feed for B21 System Safe Shutdown Component 1B21URR623A (Reactor Level/Pressure Recorder). This MNCR also replaces the 10 AMP fuses presently installed at 1Y89-06 and 1Y84-06 with 20 AMP fuses.

REASON FOR CHANGE: The Fire Hazards Analysis requires all Division I Safe Shutdown Raceways located in Fire Zone OC402 be protected by a one hour fire barrier, excluding Z77 System Circuitry. In addition, Cable 1APY89061 and its Division II counterpart 1BPY84061 are required, by 10CFR50 Appendix R, to be isolated from "Associated" non-safe shutdown circuits to preclude their loss due to overcurrent conditions on "Associated" non-safe shutdown circuits.

The change from 10 amp to 20 amp fuses is coordination between the disconnect switches and downstream fusing of "Associated" non-safe shutdown circuits. UFSAR Figure 8.3-7B will be revised to reflect the change in fuse sizes as described above.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report.

Materials used by this MNCR to install the One Hour Fire Barrier have been tested per ASTM-E84 and E119 and are approved for meeting separation requirements of 10CFR50, Appendix R.

The installations made will mitigate the consequences of a design basis fire and will increase the reliability of safe shutdown components 1B21URR623A&B.

Seismic Qualification Analyses will ensure raceway integrity and ASTM-E119 testing will ensure circuit protection for a design basis fire in Fire Zone OC402. Replacement of fuses as described above will provide proper fuse coordination and preclude the loss of safe shutdown components 1B21URR623A&B due to overcurrent conditions on "Associated" non-safe shutdown circuits.

The modifications being performed will provide separation requirements for redundant safe shutdown circuits in Fire Zone OC402 and will not modify operation of existing safety related systems.

SAFETY EVALUATION: (Cont'd)

This MNCR does not create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report. The material used in this MNCR has been tested and no seismic or environmental requirements will be affected, nor will new accident parameters be introduced by this change. The modifications being performed will mitigate the consequences of a design basis fire as required by 10CFR50, Appendix R. This MNCR will not affect any environmental, seismic, or operational requirements or specifications and therefore accident possibilities remain bounded by existing analyses.

The margin of safety will not be affected by implementation of this MNCR nor will it degrade the operation of any equipment, system, or structure. The installation of a One Hour Fire Barrier and replacement of fuses as described will increase the reliability of safe shutdown components 1B21URR523A&B.

SRASN: NPE-87-228

DOC NO: MNCR-86-1206

SYSTEM:

DESCRIPTION OF CHANGE: This MNCR revises UFSAR Figures 9.5-2 and 9.5-8a which provides complete and proper Dry Pipe and Pre-Action Valve Trim as required by NFPA 13 and vendor installation instructions.

REASON FOR CHANGE: The reason UFSAR Figures 9.5-2 and 9.5-8a were changed was to accurately reflect As-Built Dry Pipe and Pre-Action Valve Typical Trim Arrangement.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. These changes made in UFSAR Figures 9.5-2 and 9.5-8a provide complete and proper Dry Pipe and Pre-Action Valve Trim as required by NFPA 13 and Vendor Installation Instructions. The system design basis and function are not changed. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. Also, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-233

DOC NO: DCIP-82-4005

SYSTEM: Z10

DESCRIPTION OF CHANGE: This DCP modified the HVAC in the Hot Machine Shop/Decontamination Facility and installed additional decontamination equipment and made the modifications necessary to make the facility operational. The installation of decontamination equipment, ductwork, chilled water piping, domestic water piping, lighting, drains, and instrument air lines, and the rework of the turbine building exhaust radiation monitors and the chilled water pump were necessary to make the facility operational.

REASON FOR CHANGE: A review of the HVAC in the Hot Machine Shop/Decontamination Facility was performed and found to be inadequate. This modification was also made to make the decontamination facility operate adequately.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The changes with the exception to the Fire Protection System changes are performed on systems not important to safety. The changes made in the Fire Protection System (rerouting the fire sprinkler line) do not degrade system performance.

The actual stresses in the CMU shield wall with the modifications are below the allowable stresses in the Design Criteria Manual and meets the design criteria given in the FSAR Section 3.8.4.4.5. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. Also, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-320

DOC NO: NPEAP-807

SYSTEM: N/A

DESCRIPTION OF CHANGE: Nuclear Plant Engineering Administrative Procedure (NPEAP) 807 addresses the disposition of QDRs. It states that all drawing changes made in response to a QDR will be covered by 10CFR50.59 Safety Evaluation/Applicability Screening. This Safety Evaluation (SE) addresses certain generic categories of drawing changes made in response to QDRs. The categories are editorial changes, device numbers changes, valve position identifier changes, electrical contact position identifier changes, and increases in the level of detail shown on drawings. It is intended that future drawing changes falling into these generic categories will not require an individual SE, since they will already have been covered by this SE. Drawings specifically mentioned in Technical Specifications are exempted from the blanket coverage of this SE and will continue to require individual SEs.

REASON FOR CHANGE: To evaluate certain categories of changes (above) which are a result of drawing modifications due to QDRs.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. The changes described are drawing changes only and have no physical impact on plant components, structures or systems. These changes have no effect on the operation or function of plant facilities nor affects the function of reliability of plant equipment. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

The drawing changes described have no physical impact on plant function or operation; and therefore have no effect on the margin of safety as defined in the Technical Specification Bases.

SRASN: NPE-87-336

DOC NO: DCP-84-0042R00

SYSTEM: D17

DESCRIPTION OF CHANGE: This change installs an interlock behind the A & B train SGTS fan to start and stop the Flow Monitoring and Isokinetic Sampling vacuum pump motor automatically.

REASON FOR CHANGE: To start and stop the FM & IS vacuum pump motor automatically.

SAFETY EVALUATION: The interlock functions only when the SGTS functions. Therefore, there is no increase in the probability of occurrence of an accident previously evaluated in the FSAR. Interlocking the vacuum pump to the SGTS fan will not affect the fan operation. Therefore, there is no increase in the consequences of an accident previously evaluated in the FSAR. Since proper isolation and separation has been provided to avoid any effect on class IE systems, there is no increase in the probability of a malfunction of equipment important to safety. Since the equipment will continue to operate per original specification there is no increase in the consequences of a malfunction of equipment important to safety. Failure of the monitor equipment will not affect operation of the SGTS. Therefore, there is no possibility of an accident of a type different from any already evaluated in the FSAR. Since the interlock circuits for the vacuum pumps are electrically isolated from the Division I and II sources, there is no possibility of a malfunction of equipment important to safety different than previously evaluated in the FSAR. There is no reduction in the margin of safety.

SRASN: NPE-87-341

DOC NO: DCP-83-0516R00, 1, 2

SYSTEM: T10

DESCRIPTION OF CHANGE: This DCP installs two alarm strips and two alarm monitors, one each on rupture discs 1P11-PSE-D003 and 1P71-PSE-D011. This will provide continuous and automatic detection of disc rupture in Systems 1P11 and 1P71.

REASON FOR CHANGE: To monitor disc integrity by annunciating a local alarm when a disc is ruptured.

SAFETY EVALUATION: Because this change provides alarming only and has no other effect, there is no increase in the probability or consequences of an accident previously evaluated in the FSAR. Since the capability of all the equipment is unchanged by this DCP, there is no increase in the probability or consequences of a malfunction of equipment important to safety. Since no change is made to system operation and since the addition of monitoring equipment will reduce the probability of a disc rupture being unnoticed, this change does not create the possibility of an accident or malfunction of equipment of a type different from any previously evaluated. Since there is no change in the original design or functional intent of the design, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: NPE-87-345

DOC NO: DCP-84-3221-R00

SYSTEM: Z77

DESCRIPTION OF CHANGE: This DCP, per the requirements of Specification M-500.0 (Fire Hazards Analysis), installs 3-hour Thermal Science Inc. (TSI) fire barrier on various raceways and reroutes three of these raceways to facilitate the installation of the fire barriers.

Materials used by this DCP to install the 3-hour fire barriers have been tested per ASTM-E84 and E119 and are approved for meeting separation requirements of 10CFR50, Appendix R and the installation made will mitigate the consequences of a design basis fire in fire zone OC302.

REASON FOR CHANGE: The installation of the fire barriers is to meet the separation requirements for raceways containing safe shutdown circuits in accordance with 10CFR50 Appendix R and FSAR Appendix 9A.

SAFETY EVALUATION: All the materials used in this change meet applicable industry standards. The change itself has no impact on any plant system or operation, or on any seismic or environmental qualification. Therefore, there is no increase in the probability or consequences of an accident or of a malfunction of equipment important to safety, nor is there a possibility of an accident or malfunction different from any previously evaluated. Since this change adds fire protection not previously in place, there is no reduction in any margin of safety.

SRASN: NPE-87-346

DOC NO: DCP-86-4504-R00

SYSTEM: M31

DESCRIPTION OF CHANGE: This change provides a new, removable Trolley/Jib Crane (2-ton) in the containment hatchway area at Elevation 182'-3.

REASON FOR CHANGE: The Trolley/Jib Crane will be used only during remove outages. It is to relieve the Polar Crane critical path schedule.

SAFETY EVALUATION: No accident previously evaluated in the FSAR had a probability of occurrence related to the installation or use of a Containment Hatchway Trolley/Jib Crane. Also, the subject new Trolley/Jib Crane did not increase the probability of the occurrence of a fuel handling accident as previously evaluated and presented in FSAR 15.7.4 and 15.7.6 because it is installed on an Equipment Hatch guide column at Elevation 182'-3". Therefore, the probability of occurrence of any accident previously evaluated in the FSAR is not increased.

No accident previously evaluated in the FSAR had consequences related to the installation or use of a Containment Hatchway Trolley/Jib Crane. Furthermore, no other previously evaluated accidents in the FSAR had consequences as a result of load-drop accidents in the potential drop-hazard zone as defined by the new Trolley/Jib Crane. Therefore, the consequences of accidents already evaluated in the FSAR are not increased.

No equipment important to safety previously evaluated in the FSAR had probabilities of malfunction based on the installation or use of a Containment Hatchway Trolley/Jib Crane. Also, it is not possible for loads carried by the new removable crane to cause a malfunction of any equipment important to safety during operational Modes 4 or 5 in the potential drop zone because none is located there. The new Trolley/Jib Crane can only be installed during Modes 4 or 5 and must be removed from Containment prior to plant re-start. Therefore, the probability or consequences of a malfunction of equipment important to safety previously evaluated in the FSAR is not increased.

The new Trolley/Jib Crane is non-seismic and will be used only during operational Modes 4 or 5. However, should a seismic event occur during a plant outage, Trolley/Jib crane failure and a subsequent load drop must be assumed. Systems required to maintain the plant in a safe shutdown condition (e.g., RHR, Fuel Pool Cooling, etc.) must be protected. Trolley/Jib Crane load drops will not create new equipment related accident scenarios since safety related equipment required during Modes 4 or 5 is not located in the potential drop zone and cannot be affected. However, the potential for damage to the suppression pool liner plate and possible local concrete damage is a possibility. Any suppression pool leakage from Containment would require liner and

SAFETY EVALUATION: (Cont'd)

base slab penetration. The GGNS Heavy Loads evaluations required by NUREG 0612 were performed and found acceptable for thinner elevated slabs struck by heavier loads; i.e. RWCU hatches at Containment Elevation 170'-0". Also, the drop of the Drywell Equipment Hatch cover was considered as a possibility for DCP-84/4510, Rev. 0, but Penetration of the slab and loss of suppression pool water due to liner/concrete damage was not considered a new tenable accident scenario. Drops of at most 2 tons from the new Trolley/Jib Crane would represent a less significant scenario than these accidents previously considered; therefore, the possibility of an accident or malfunction of equipment of a different type than any already evaluated in the FSAR is not created.

No Technical Specification requirements which exist for equipment in the potential drop zone of the Trolley/Jib Crane would be violated should a load drop occur. Even in the case of suppression pool leakage, creating noncompliance with Tech. Spec. LCO 3.5.3b, provision is made under action item b to maintain conditions important to nuclear safety. Therefore, the margin of safety as defined in the basis of any technical specification is not reduced.

SRASN: NPE-87-348

DOC NO: DCIP-82-0244-

SYSTEM: G41

DESCRIPTION OF CHANGE: The upper containment pool walls, including associated gates, that separates the transfer canal and reactor cavity from the fuel storage pool have been modified raising the top elevation to 208'-4". The design consists of a stiffened hollow box constructed of stainless steel material welded to the top of the existing walls. In conjunction with the changes new gate seals are provided to accommodate the larger gates.

REASON FOR CHANGE: The purpose of the modifications are to increase the capacity of the Fuel Pool Cooling and Cleanup System to enhance system operation and to prevent flooding or overflow of water into the reactor cavity when in a drained condition. Additionally, the wall that separates the transfer canal from the fuel storage pool was raised to provide the potential to drain the canal, independent of the plants mode of operation, while maintaining required water levels in the upper containment pools.

SAFETY EVALUATION: The software changes and revised weldings do not affect the structural integrity of the wall. The seal materials will continue to perform their design functions. The wall extension was seismically designed and the structural integrity of the wall remains adequate. The placing of an upper limit on the inflation pressure of the gate will enhance its structural integrity. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.

The structural integrity of the wall and of the gate remains adequate, and the seals continue to perform their design function. Specifying a maximum inflation pressure for the gate seals prevents overstressing of the gate supports but does not reduce the sealing capability. Therefore, there is no possibility of an accident or malfunction of equipment previously unanalyzed in the FSAR.

Since the structural integrity of these components is not degraded by these changes, and since the function or bases for these components as addressed in the Technical Specifications are not changed, there is no reduction in any margin of safety.

SRASN: NPE-87-349

DOC NO: DCP-82-0817

SYSTEM: P53

DESCRIPTION OF CHANGE: This DCP provided the necessary designs for the installation of new filters and corrosion resistant materials downstream of these new filters in the instrument air supply piping to the MSIV & MSRV Accumulators.

REASON FOR CHANGE: To modify instrument air lines including piping and penetrations to reduce corrosion and improve MSIV & MSRV reliability.

SAFETY EVALUATION: This change meets the requirements all applicable codes, and meets all design requirements and FSAR requirements. Failure of the instrument air system will not compromise safe reactor shutdown. There is no effect on the functioning of any system. By installing filters and changing piping materials, there are fewer corrosion particles making their way into the air actuators or control systems of the valves. Therefore, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety.

The pipe and piping supports meet all the requirements of the applicable codes, and will withstand the loads they will encounter. The safety function of the relief valves and isolation valves is assured by the presence of the accumulators in the event of failure of the Instrument Air System. Failure of the filters will not prevent operation of the valves. Therefore, there is no possibility of an accident or malfunction of equipment important to safety different from any previously evaluated in the FSAR.

Since this change meets the requirements of all applicable codes, and no functional changes were made to this portion of the instrument air system there is no reduction in the margin of safety as defined in the basis for any Technical Specification.

SRASN: PLS-87-019

DOC NO: 04-1-01-P45-4

SYSTEM: P45

DESCRIPTION OF CHANGE: Procedure 04-1-01-P45-4 was changed to allow drain valve P48F002 to remain open instead of closed during normal operation. This valve is shown in UFSAR Figure 9.3-15.

REASON FOR CHANGE: This procedure change allowing valve P48F002 to remain open will prevent a buildup of water on the steam tunnel floor during normal operation by allowing the water to drain away to the RCIC room sump.

SAFETY EVALUATION: NPE analyzed the effect of opening valve P48F002 and the only effect would be compartment pressurization due to high energy line breaks. Calculation M-7.17.006-Q showed the effect to be negligible. Therefore, there was no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report.

Opening this drain valve has negligible effect per NPE Calculation M-7.17.006-Q. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

This change has negligible effect per NPE. Therefore, there is no reduction in the margin of safety as defined in the basis for any technical specification.

SRASN: PLS-87-020

DOC NO: FSAR-CR-87-008

SYSTEM:

DESCRIPTION OF CHANGE: This CR changed UFSAR sections 1.2.2.7.2 and 9.1.4 by changing the method of new fuel receipt, routing and handling as previously described. This CR deleted specific references to the new fuel routing and the associated handling by specific cranes and grapples where inappropriate.

REASON FOR CHANGE: This change was intended for the purpose of allowing the new fuel to be brought into the plant via the Turbine Building and transferred to the Fuel Handling Area via the 166' elevation passageway.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report because the 133' Turbine Building Bay provides more than adequate means for handling and unloading the new fuel. The use of the associated cranes (both in the Turbine and Aux. Buildings) have been evaluated for heavy loads. The same fire prevention measures, such as fire extinguishers and fire watches, will be provided in the Turbine Building Railway Bay. In regards to the new fuel routing the miscellaneous equipment area passage 1A417 (166' level Auxiliary Building) contains safety related cables and equipment. These items are protected by I-beams, structures, or are located such that damage caused from running the new fuel and cart into the cables and equipment is highly improbable. The safety related equipment and cables are generally segregated so that no single credible event is capable of disabling sufficient equipment to prevent reactor shutdown, removal of decay heat, or prevent isolation of the containment. This routing is the same route as normal equipment removal access to and from this area and has been evaluated for loads of 6 tons.

The use of alternate grapples, such as the lift hook, poses no increase in the probability of bundle droppage. The design of the lift hook is such that it meets or exceeds the design requirements of the general purpose grapple. The lift hook also provides a means of positive locking consistent with that of the general purpose grapple.

The 133' Turbine Building Railway Bay contains no systems or components considered important to safety. No system or component located in this area is used in mitigating the consequences of any accident as evaluated in the UFSAR.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report as the existing plant equipment approved and tested for handling heavy loads will be utilized during the entire phase of new fuel movements. The associated

SAFETY EVALUATION: (Cont'd)

areas where the new fuel will be handled with lifting devices has been evaluated. As previously stated, no equipment important to safety is expected to be affected. At the worst case one (1) train of safety related equipment could be rendered inoperable in which case the redundant train is available. No equipment assumed to respond in mitigating the effects of an accident are affected by this change.

There is no reduction in the margin of safety as defined in the basis for any technical specification. All aspects of Technical Specifications are adhered to in the implementation of this change request. The opening of secondary containment doors for entry and exit is allowed by Technical Specifications and is addressed in UFSAR Section 6.2.3.5.

SRASN: PLS-87-022

DOC NO: TSTI-1P33-87-001-0-N

SYSTEM: P33

DESCRIPTION OF CHANGE: This TSTI determined the percent deposition of particulates in the Containment Atmosphere Sample Lines on the Post Accident Sample Panel.

REASON FOR CHANGE: This TSTI helped to prove that the sample lines (tubing) were operating satisfactorily.

SAFETY EVALUATION: This TSTI does not increase the probability of an occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report as this test determined percent deposition in the containment atmosphere sample line and has no affect on the UFSAR accident analyses. There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report. The margin of safety is not affected as the Post Accident Sampling System (PASS) is not a safety related system and is not required for safe shutdown of the plant.

SRASN: PLS-87-025

DOC NO: MWO-73285

SYSTEM: V41

DESCRIPTION OF CHANGE: This MWO removed the "HI HI RAD TRIP" of the radwaste exhaust fans by installing a jumper.

REASON FOR CHANGE: The alarm was inabled due to continued erroneous alarms.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. SER 9.4.3 (paragraph 4) addresses the failure (loss) of the Radwaste Building Ventilation System and concludes that this failure does not compromise the safety functions of essential systems or result in release of unacceptable amounts of radioactivity. In addition, all filtration and alarms of the system remains intact and radioactivity levels are presently acceptable. This system is also classified as being non-safety related. Preventing the exhaust fan from running will not cause any other equipment to malfunction or fail. Therefore, there is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

The margin of safety as defined in the basis of any Technical Specification not changed by jumpering out the Radwaste Exhaust fans. This trip is not addressed in Technical Specifications and there is no requirement for it to be.

SRASN: NLS-87-004

DOC NO: FSAR-CR-NLS-87-056

SYSTEM: E61

DESCRIPTION OF CHANGE: FSAR Sections 6.2.5.2.J and 6.2.5.2.2.2 and 7.3.2.5.2 were changed to reflect that the Hydrogen Ignition System would be initiated prior to uncovering fuel rather than be initiated by high containment pressure.

REASON FOR CHANGE: The commitment to initiate the Hydrogen Ignition System on high containment pressure was beyond the design basis for the system and was deleted.

SAFETY EVALUATION: Operation of the HIS is designed to prevent hydrogen accumulation by ignition of hydrogen at low concentrations, typically 4-5%. If conditions exist which could lead to significant hydrogen production, it is desirable to activate the HIS as early as possible to control hydrogen accumulation. The HIS, therefore, is actuated based on Reactor Pressure Vessel (RPV) water level since significant hydrogen generation cannot occur with RPV level at or above Top of Active Fuel (TAF). Actuating the HIS on high containment pressure, therefore, has no basis since containment pressure is not an indication of core degradation or hydrogen production.

The HIS is designed to periodically burn hydrogen that is released to the containment and drywell during a degraded core accident. This system is manually initiated from the control room when RPV water level has reached or prior to RPV water level reaching Top of Active Fuel (TAF), so that the hydrogen concentration in the containment is maintained below its detonable limit. Because the HIS is a passive system and is designed for only those accidents which result in core degradation with subsequent hydrogen production (i.e., accidents not previously evaluated in the FSAR), deleting reference to actuating the HIS on high containment pressure does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report. As stated above, the same reason exists for no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report.

This UFSAR change revises the description of the manual actuation criteria for the HIS by deleting reference to actuating the HIS on high containment pressure. Since this change does not involve a relaxation of the criteria used to establish the safety limits, the bases for limiting safety system settings, the bases for limiting conditions of operation, a change to Technical Specifications or a change in plant operation, the change will not reduce the margin of safety as defined in the basis for any technical specification.

SRASN: NLS-87-005

DOC NO: FSAR-CR-NLS-87-049

SYSTEM:

DESCRIPTION OF CHANGE: This change request added to UFSAR 15.7.4 the fuel handling accident analysis considering the drop of a channeled spent fuel assembly onto stored spent fuel bundles.

REASON FOR CHANGE: Additional text was added to UFSAR 15.7.4 to provide clarification in response to CAR 2247.

SAFETY EVALUATION: There is no increase in the probability of occurrence or in the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report as the clarification to UFSAR Subsection 15.7.4 does not alter the results of the fuel handling accident analysis. NPE evaluated the drop of a 1140 pound non-fuel assembly event and determined that the event is bounded by the acceptance criteria of SRP 15.7.4. The malfunctions assumed in the original fuel handling accident analysis remain unaltered due to this proposed change.

There is no creation of a possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report as the fuel handling accidents and heavy load drops are already evaluated in the UFSAR. UFSAR Subsection 9.1.4.3 references a comprehensive two phase report comprising the response to NUREG-0612, "Control of Heavy Load at Nuclear Power Plants." Phase I of the report was approved by the NRC in the GGNS SER Supplement 5, Appendix L while Phase II was approved in a technical evaluation report issued by the NRC on February 14, 1984 (MAEC-84/0059). This report covered the drop of a non-fuel assembly event as well as other heavy loads operations.

There is no reduction in the margin of safety as defined in the basis for any technical specification as the analysis and its results contained in UFSAR Subsection 15.7.4 are not changed by the clarification to the Subsection. This change does not affect the bases for Tech Spec 3/4.9.6 or 3/4.9.7 or any other Technical Specification.

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SYSTEM:

DESCRIPTION OF CHANGE: This FSAR change updates outage data for the 500KV transmission lines slightly decreasing the overall performance of the 500KV system from 0.74 to 0.81 outages/year/100 miles. The change also adds outage data on the 115KV transmission line from the Natchez Steam Electric Station to the Baxter Wilson Steam Electric Station.

REASON FOR CHANGE: To update the FSAR to reflect actual conditions.

SAFETY EVALUATION: Because the FSAR analysis assumes the loss of all grid connections, there is no increase in the probability or consequences of an accident or malfunction of equipment important to safety. There is no possibility for an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the FSAR because the FSAR analysis assumes the loss of all grid connections. There is no reduction in the margin of safety as defined in the basis for any technical specification because Technical Specifications assume the loss of offsite power.