

ATTACHMENT 1

UNIT 2

1983 FACILITY CHANGESTABLE OF CONTENTS

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FACILITY CHANGE 2/3-82-073

TITLE

Post-Accident Sampling System (PASS) - Electrical Modification

DESCRIPTION

This facility change installed eighteen nonsafety-related cables to the PASS system.

SAFETY EVALUATION

This PASS modification was nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

TITLE

Additional Motor Control Centers (MCC's) in Engineered Safety Features (ESF) Switchgear Rooms

DESCRIPTION

This modification installed two Class 1E (480 Volt) MCC's (2BRA & 2BRB), one for each of the two safety load groups A and B. The change was to accommodate known and anticipated load additions, including motor operated valves (MOV's) for Shutdown Cooling System (SDCS) and Inadequate Core Cooling (ICC) uninterruptible power supply loads.

SAFETY EVALUATION

The additional MCC's are safety-related. The FSAR Section 8.3.1.1.3, Table 8.3-2, Table 8.3-1, Figure 8.3-6, and Figure 8.3-7 were modified to include the MCC's addition to the ESF Busses 3B04 and 3B06. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased by this change. The subject design change ensured adequate margin in MCC source for adding loads related to SDCS modifications and Class 1E loads. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced because the addition of two MCC's provided adequate margins to add increasingly expanding Class 1E loads covered in the Technical Specifications. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-82-192

TITLE

Nuclear Water Service Tank (NWST) Connections

DESCRIPTION

This modification installed an automatic level control system for the NWST T-104 to increase the efficiency of the system. The new system automatically adds water whenever needed from the Demineralizer Water Header through a pneumatically operated level control valve controlled by a signal from the NWST Level Transmitter LIT-7900. Previously, the demineralizer or the condensate pump and associated valves required manual aligning. Revision (1) to this facility change deleted the existing connection to the Condensate Storage Tank to reduce the potential for chemical contamination of the NWST.

SAFETY EVALUATION

The NWST is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because this modification increased the efficiency of the system by the addition of the automatic refilling capability. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-82-276

TITLE

Addition of a Drain Line to the Reactor Coolant Drain Tank (RCDT)

DESCRIPTION

This modification provided an effective leak detection system of the flexitallic gasket between the Reactor Coolant Pump (RCP) casing and the pump cover. The change was implemented on each of the four RCP's. It included the addition of a drain line to RCDT, a pressure transmitter, a control valve and a pressure indicator with an annunciator in the control room. This results in early detection of the gasket failure, and the preclusions of the RCP stud and bolt corrosion inherent with seal leakage.

SAFETY EVALUATION

The modifications are nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the addition of the modification improved previous gasket leakage inspection. In addition, the modification did not create the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR, nor was any margin of safety reduced in the basis for any Technical Specification. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-82-599

TITLE

Addition of Containment Isolation Actuation Signal (CIAS) for Component Cooling Water (CCW) Noncritical Loop Valves Inside the Containment

DESCRIPTION

This modification added (CIAS) to (CCW) noncritical loop supply and return containment isolation valves (3HV-6223 and 3HV-6236) inside the containment. The change was made pursuant to the criteria for containment isolation for open loop systems, FSAR Section 6.2.4.1E and General Design Criteria 55 and 56. These modifications ensure that on LOCA or steam line rupture these valves will close, reducing the possibility of releasing radioactive materials to the atmosphere and maintaining containment integrity.

SAFETY EVALUATION

The CCW system is safety-related and interfaces with the Reactor Coolant Pumps and Engineered Safety Feature Actuation System. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because there is no effect on the response of the CCW system and these valves can still be actuated manually at the operator's discretion. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. There was a change to Technical Specification 3.3.2, Tables 3.3-5 and 3.6-1. This change minimizes the possibility of release of radioactive materials to the atmosphere. No margin of safety in the basis for any Technical Specification was reduced by this change since it supports the intent of the basis of the Technical Specifications. Therefore, there was no unreviewed safety question associated with the change.

FACILITY CHANGE 2/3-82-611

TITLE

Addition of Fire Detectors

DESCRIPTION

This modification installed additional fire detectors in Unit 2 Fire Zones 11, 28, 45, 62, 72 and in Room 248A of the Technical Support Center. This facility change was implemented to satisfy a Unit 2 Operating License condition.

SAFETY EVALUATION

The installation of these additional fire detectors is nonsafety-related. The change required editorial revisions to the Technical Specifications, Fire Hazard Analysis and the FSAR to include these additional detectors. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because this addition of fire detectors ensures adequate early warning detection of fires in the specified areas. The possibility of an unevaluated accident was not created, since there was no functional change or degradation of equipment used as a basis for any incident evaluated in FSAR. This change required Table 3.3-11 of the Technical Specifications to be updated to include the added detectors and increases the number of detectors which are required to demonstrate operability per the Technical Specification Section 3/4 3.3.7. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety questions associated with this modification.

FACILITY CHANGE 2/3-82-613

TITLE

Addition of Drain Line for Collection of Reactor Coolant Leakage

DESCRIPTION

This modification provided a tapped hole in each Reactor Coolant Pump drive mount and installed piping to a gravity drain to remove borated reactor coolant which leaks and collects in the drive-mount area.

SAFETY EVALUATION

The Reactor Coolant Pumps are safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident or malfunction of equipment important to safety were increased because the change ensures operation within the design basis of FSAR Sections 5.4.1 and 9.3.3. The possibility of an unevaluated accident was not created because there was no changes in the design function of the system. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-015

TITLE

Addition of New Air Conditioning System for Control Element Drive Motor (CEDM)
Control Cabinet Room

DESCRIPTION

This modification added an air conditioning system to the CEDM Control Cabinet Room. This system maintains a maximum temperature of 75°F and approximate relative humidity of 50% at the maximum space cooling load. The modification added an air conditioning unit to the CEDM room sized for 50% of the total cooling load.

SAFETY EVALUATION

The CEDM Control Room cabinets are not safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change did not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. There was a revision to Section 9.5.1.5.10 of the FSAR to address the deviation in fire damper and fan operation upon sensing a fire; also Sections 3.2 and 9.4.2.11 were changed to reflect the new design parameters. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-039

TITLE

Steam Generator Blowdown System Bypass Line

DESCRIPTION

The modification added a bypass line to the blowdown system and additional controls and instrumentation required for proper monitoring of the blowdown processing system bypass during all modes of operation. The change routes blowdown flow from the steam generators directly to the circulating water system discharge and facilitates steam generator water chemistry control during periods when the blowdown processing system is unavailable.

SAFETY EVALUATION

The Steam Generator Blowdown Bypass System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the system function remains as originally intended and the change ensures compliance with the FSAR design basis. The possibility of an unevaluated accident was not created because the system is designed to function identically to the existing blowdown processing system. The Technical Specification 3/4.3 was revised to include this change. No margin of safety to the basis for any Technical Specification is reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-095

TITLE

Additional Deluge Fire Protection

DESCRIPTION

The change added a Deluge Fire Protection System over the turbine and motor drivers of the Feedwater Pumps (P-504 and P-140). This system utilizes a deluge valve with actuation from heat detectors located in accordance with Section I.I, Fire Detector Design Basis, of the Fire Hazard Analysis. This system and the installation of the lube oil shroud (addressed in a previous facility change) ensured adequate fire protection to the motor driven pump (P-504) from the turbine driven pump's (P-140) lube oil system.

SAFETY EVALUATION

The Deluge Fire Protection System is nonsafety-related. Revisions were made to the safety evaluation for the Fire Protection System in Section 9.5.1.3 Paragraph D, of the FSAR, to include a dry pipe deluge system in the Auxiliary Feedwater Pump Room and to Table 9.5-2 of the FSAR to add heat detectors inside the Auxiliary Feed Pump Room. Also revisions were made to the Technical Specification in Table 3.3-11 to include addition of heat detectors for deluge actuation, and to Table 3.7-5 to include the addition of a deluge system in the auxiliary feedwater area over the adjacent pump drivers. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change ensures the required fire protection is maintained, thus complying with the FSAR design basis. The possibility of an unevaluated accident was not created since there are no changes in the design function of the system. No margin of safety to the basis for any Technical Specification was reduced by this change, as there was no impact on those parameters or surveillance requirements governed by the existing Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-144

TITLE

Modification of Control Circuitries

DESCRIPTION

This modification changed the control circuitry of several devices, to bring the design in compliance with NRC IE Bulletin 80-06. The bulletin recommended that all devices actuated by the Engineered Safety Features Actuation System (ESFAS) should remain in the same status which they were in at the time ESFAS reset was actuated. The affected componen'ts were:

1. Safety Injection Tank Outlet Valves HV-9340, 9350, 9360 and 9370. Safety-related
2. Emergency Core Cooling System Pump Mini-Flow Lines Isolation Valves HV-9306, 9307, 9347 and 9348. Safety-related
3. Spray Chemical Addition Pump Discharge Flow Control Valves FV-0318 and 0328. Safety-related
4. Onsite Technical Support Center (OTCS) Uninterruptible Power Supply Unit Y010. Nonsafety-related
5. Pressurizer Back-Up Heaters E-128 and 129. Nonsafety-related
6. Low Pressure Turbine Emergency Spray Water Pump P-145. Nonsafety-related
7. Essential Lighting Transformer LTLP-35. Nonsafety-related

SAFETY EVALUATION

This modification is both safety-related and nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because none of the changes affect the designed function of the system or prevent the devices from performing their safety function. The possibility of an unevaluated accident or malfunction of a different type than any previously evaluated in FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced by this change since the equipment affected is neither governed by Technical Specifications nor impacts any existing Limiting Conditions for Operations or Surveillance Requirements. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-199

TITLE

Installation of Emergency Lighting

DESCRIPTION

This modification installed new self-contained sealed beam battery power-pack lighting units in the area of the Intake Structure and in specified access and egress routes. The change corrected the deficiencies identified in the Emergency Lighting System relative to conformance to the Fire Hazard Analysis.

SAFETY EVALUATION

The Emergency Lighting System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because no design basis was changed. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced since the equipment covered by this change is not governed by the Technical Specifications. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-220

TITLE

Modification to Post Accident Monitoring (PAM) System

DESCRIPTION

This modification made changes to the PAM system, to bring the system design in conformance with NRC Regulatory Guide 1.97, Revision 2 requirements. The existing non-1E qualified transmitters were replaced with 1E qualified transmitters. Two existing non-1E qualified indicators were replaced by 1E qualified indicators and annunciators were installed to display the status of pressurizer backup heaters.

SAFETY EVALUATION

This modification to the PAM System is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because more reliable and qualified instruments were installed. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced since no change occurred in system operation or surveillance requirements. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-227

TITLE

Modification of Turbocharger and Spring Drive Gears on Diesel Generators

DESCRIPTION

This modification changed the standard duty turbochargers to heavy-duty turbochargers. The new turbochargers were developed by General Motors (diesel generator manufacturer) specifically for use on emergency diesel generator sets. Spring-drive gears were also changed in accordance with General Motors recommendations for engines where reliability is high priority.

SAFETY EVALUATION

The emergency diesel generators are safety-related. This changeout is in response to NRC Question 040-72. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident or malfunction evaluated in the FSAR. The possibility of an unevaluated accident was not created, since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-242

TITLE

Component Cooling Water (CCW) Isolation Valve Interlock Scheme

DESCRIPTION

This modification revised the interlock scheme for the isolation valves of the CCW noncritical loop. The change allows the closed train isolation valves to begin opening while the opened train isolation valves are being closed.

Also, the setpoints for the CCW Surge Tank Pressure Relief Valves and Surge Tank Nitrogen Regulator Valves are increased slightly to mitigate any mass transfer transient between CCW loops.

SAFETY EVALUATION

This modification is safety-related. System operation as described in Section 9.2.2.2.3.4 of the FSAR has been revised to incorporate this change. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased. This modification reduced the likelihood of Reactor Coolant Pump seal failure by providing continuous Component Cooling Water to the seal coolers. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, no unreviewed safety question was associated with this change.

FACILITY CHANGE 2/3-83-280

TITLE

Sampler and Flow Totalizer for the Steam Generator Blowdown Sample System (SGBSS)

DESCRIPTION

This change enhanced the SGBSS in order to provide proper monitoring of the Blowdown Processing System Bypass during all its modes of operation. The modification also added a flow totalizer and a proportional sampler to the existing SGBSS of each steam generator.

SAFETY EVALUATION

The Steam Generator Blowdown Sampling System is nonsafety-related. Section 10.4.8 of the FSAR has been revised to include the additional controls and instrumentation required by this change. Section 11.5 of the FSAR has been revised to include the revised sampling information. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the failure modes and related affects are no different from that previously analyzed. The possibility of an unevaluated accident was not created since the system is designed to function identically to the previously existing Blowdown Processing System. Technical Specification 3/4.3 was also revised to include this modification. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-291

TITLE

Nuisance Alarm Elimination - Hot Leg Injection Header

DESCRIPTION

This modification eliminated a nuisance alarm resulting from small leakages past check valve 1204-3"-156 in the Hot Leg Injection Header No. 1, due to the short-length and small volume of the pipe section between the redundant check valves (1204-3"-156 and 1204-3"-158). The nuisance alarm was suppressed by disconnecting the cable to the high pressure alarm of loop 9422. The signal to the computer and the Control Room pressure indicator was retained.

SAFETY EVALUATION

The alarm is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created by this change. No margin of safety in the basis for any Technical Specification was reduced since the affected alarm is not required by any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-294

TITLE

Rerouting of Reactor Coolant Pump (RCP) Vapor Seal Leakoff Line

DESCRIPTION

This modification provided a gravity flow path for the RCP Vapor Seal Leakoff to the floor drains instead of to the Reactor Coolant Drain Tank. The change was necessary to prevent leakage of reactor coolant from the RCP shaft from spilling onto the drive mount area. Operating Procedure SO23-3-1.7 and SO23-3-5.26 were revised by this change.

SAFETY EVALUATION

The rerouting of the RCP Vapor Seal Leakoff line is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the change did not affect operation within the design bases. The possibility of an unevaluated accident was not created because there are no changes in the design functions of the system. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-304

TITLE

Rerouting of Movable Incore Detector (MICD) Drain

DESCRIPTION

This change rerouted the MICD drain lines from the Reactor Coolant Drain Tank to the Containment Sump to prevent water backflow to the MICD transfer box, with the potential of ultimately damaging the MICD system. This change assures the proper operation of the MICD and proper drainage of water if leakage occurs in the system.

SAFETY EVALUATION

The MICD System is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because no functional change has occurred in the moveable in-core detector system. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-331

TITLE

Control Building Emergency Filter Flow Instrumentation

DESCRIPTION

This facility change modified the flow measuring instrumentation of the Control Building Recirculating Units to indicate the correct flow and to extend the range of the supply unit instrumentation.

SAFETY EVALUATION:

The Control Room Emergency supply and Recirculation units and associated control panels are safety-related. There were revisions and impacts to the FSAR as follows:

- (a) Sections 6.4.2.2.2, 6.4.3.2, 6.4.4.2.1, and 6.4.5.1 are revised to show increased supply unit flow and exemption of the supply units, from Regulatory requirements;
- (b) Tables 15B-5, 6.4-1A, and 9.4-5 are revised to indicate increased supply unit flows and related changes;
- (c) Response to NRC Question 312.17 is revised;
- (d) Table 9.4-3 is revised to indicate decreased smoke exhaust flow and increased recirculating unit flow;
- (e) Section 9.4.2.2.2.2 and 15B.7 is revised to indicate exemption to Regulatory requirements for the supply units.

There were revisions to Technical Specification Section 4.7.5 to show recirculation unit flow increase, supply unit exemption to Regulatory Guide 1.52 requirement, and HEPA and charcoal exemption to ANSI-N510. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the modifications do not alter the operation within the design basis. The possibility of an unevaluated accident will not be created because there is no change in the design function of the system. No margin of safety in the basis for any Technical Specification was reduced since there was no effect on existing Limiting Conditions of Operation or Surveillance Requirements governed by existing Technical Specifications. Therefore, there was no unreviewed safety question associated with the modification.

FACILITY CHANGE 2/3-83-394

TITLE

Temporary Air Conditioning for Control Element Drive Motor (CEDM) Control Cabinets in Rooms 308A and 308B.

DESCRIPTION

The modification provided an enclosure around the CEDM cabinets in the CEDM Control Cabinet Rooms (308 and 308B) and thermostatically controlled recirculation type air conditioning units within the enclosures. This was a temporary modification to prevent the actuation of the CEDM cabinets' high temperature alarms. This modification covers both Units 2 and 3 and was removed upon installation of Facility Changes 2/3-83-15 for Unit 2 and 2/3-83-16 for Unit 3.

SAFETY EVALUATION

The temporary air conditioning for CEDM Control Cabinets is nonsafety-related. Section 9.5.1.5.10 of the FSAR and Zone 58 of the Fire Hazard Analysis were revised to include this change. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change did not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The change provided added assurance that the integrity of the CEDM control would be protected because of the lowered temperature. The possibility of an unevaluated accident was not created, since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-430

TITLE

Reactor Vessel and Refueling Cavity Water Level Indication

DESCRIPTION

This change added an upper reactor vessel and refueling cavity level monitoring system. The level monitoring system measures the water level from the reactor hot leg up to the top of the refueling cavity. This modification will assist operations personnel in maintaining Reactor Coolant System water level within Technical Specification limits during refueling.

SAFETY EVALUATION

The level indication is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the change does not modify any existing FSAR design basis. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced since the change had no impact on any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-431

TITLE

Modification to Accident Monitoring System-Phase II

DESCRIPTION

The modification to the Accident Monitoring System (AMS) included the following changes:

1. The installation and calibration of the Unit 2 Qualified Safety Parameter Display System (QSPDS).
2. The provision of inputs to the QSPDS.
3. The deletion of the existing Subcooled Margin Monitors (SMM).
4. The installation of a Operators Console.
5. The installation of a CRT and keyboard for Critical Function Monitoring System (CFMS) display.
6. The installation of a new Containment Electrical Penetration Assemblies (CEPA) into existing containment nozzles.
7. Upgrading of Incore Instrumentation System (ICI).

The Phase II task of the AMS and the upgrading of the ICI system was required to enable the AMS to function as designed and to comply with NUREG 0737 Item II F.2, NUREG 0696, and portions of Regulatory Guide (R.G.) 1.97.

SAFETY EVALUATION

This change is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The AMS is solely a data acquisition and display system. It displays plant parameters important for the operator and the Technical Support Center personnel to assess the degree of unit safety during normal operating condition as well as during and after an accident. The possibility of an unevaluated accident was not created by this modification. No margin of safety in the basis for any Technical Specification was reduced since this change upgrades the ICI's and will increase the operability and availability of the AMS. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-432

TITLE

Modification to Accident Monitoring System - Phase III

DESCRIPTION

The implementation of the Phase III task of the Accident Monitoring System (AMS) included the following changes:

- 1 The Phase III inputs to the Critical Function Monitoring System (CFMS) and Qualified Safety Parameter Display System (QSPDS).
2. The QSPDS power failure and trouble alarm annunciation function.

The Phase III task of the AMS was required to complete the AMS to enable it to function as designed and to comply with NUREG 0737 Item II F.2, NUREG 0696, and portions of Regulatory Guide (R.G.) 1.97.

SAFETY EVALUATION

This modification is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the system control display functions or design criteria were not affected by this change. The possibility of an unevaluated accident was not created as a result of this change. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-451

TITLE

Steam Generator Blowdown Flash Tank Replacement

DESCRIPTION

This change provided for the replacing of the existing Blowdown Flash Tank with a larger tank. A steam purifier, modified piping and instrumentation to accommodate the change were also installed.

SAFETY EVALUATION

The Blowdown Processing System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident or malfunction evaluated in the FSAR. The possibility of an unevaluated accident was not created, since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety to the basis for any Technical Specification was reduced by this change because there was no functional change or degradation of any equipment used as a basis for any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-460

TITLE

Boric Acid Batching Tank Temperature Alarm Relocation

DESCRIPTION

This change moved the annunciation for the Boric Acid Batching Tank temperature alarm from the Main Control Room Panel to the Radwaste Local Control Panel. This modification eliminated an unnecessary alarm in the Control Room and improved the response time to the temperature alarm, making the process more efficient.

SAFETY EVALUATION

The alarm is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The overall function of the annunciator and the process was unchanged by this modification. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-463

TITLE

Deletion of Remote Shutdown Panel (L-42) "Door Open" Alarm

DESCRIPTION

This modification deleted the "Shutdown Panel (L-42) Door Open" alarm and annunciator window from the Main Control Room Panel, and deleted the alarm initiating switches and circuit from the shutdown panel door. The intrusion alarm was not needed since the shutdown panel was located in an area which is secured by a key locked door and monitored by the security system.

SAFETY EVALUATION

The annunciator system is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The possibility of an unevaluated accident was not created because the design function and characteristics of the shutdown panel were not changed or degraded in any way. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-540

TITLE

Additional Communication Equipment at the Emergency Plant Parameter Monitoring System (EPPMS) Panel

DESCRIPTION

This modification provided telephone communication capability between the EPPMS panel area and the Evacuation Shutdown Panel Room which may be used in the event of safe shutdown operation from this latter panel. The installation consisted of a telephone, and associated cabling consistent with existing communication design.

SAFETY EVALUATION

The additional communication equipment is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any incident evaluated in FSAR. This design change did not affect the function of the existing communication system. The possibility of an unevaluated accident was not created by this change. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-542

TITLE

Installation of Non-1E Uninterruptible Power Supply (UPS) System

DESCRIPTION

This modification installed a UPS system to provide enough alternate power sources and switching capability to ensure continuous power to the non-1E instrumentation power panels during loss of offsite power or other loss of AC power events. The primary power to the UPS is from a Class 1E source via an isolation device consistent with FSAR Section 8.1.4.3.14A, with the diesel-generator as the backup. In addition, the UPS system has a battery ride-through capability with an alternate AC power source from a non-1E bus.

SAFETY EVALUATION

The UPS is nonsafety-related but interfaces with safety-related systems via an isolation circuit breaker. This change improves the reliability of power to the non-1E instrument power panels per the SCE evaluation of IE Information Notice No. 80-10 as supplemented by the March 1980 NSAC/INPO report. Isolation circuit breaker 3A0412 will provide proper separation between the existing Quality Class II switchgear and the new Quality Class III UPS. Although the FSAR response to NRC Question 222.44 was revised, no design bases have been changed. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because this change improves reliability of power to the non-1E instrument power panels. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-574

TITLE

Replacement of Control Room and Local Differential Pressure Scales

DESCRIPTION

This modification replaced the original 0-15 psid range scale with a 0-25 psid scale. The affected instruments were 2PDIT-6484 and 2PDIT-6485, which monitor pressure drop across the Component Cooling Water (CCW) Heat Exchangers, as well as 2PDI-6484, and 2PDI-6485, which display the differential pressure on panel 2CR-64. This change was required due to a higher than expected rate of buildup of saltwater debris coming in through the screens.

SAFETY EVALUATION

The CCW system is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-643

TITLE

Bypass Line Installation Around Volume Control Tank (VCT)

DESCRIPTION

This facility change installed a bypass line with a locked-close globe valve around the VCT Gas Discharge Pressure Control Valve (PCV-9210) for use during a cover-gas change to vent and purge the tank.

SAFETY EVALUATION

The bypass line installation is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The change did not alter the functional design of the Chemical and Volume Control System since the bypass valve is locked closed during all system modes except during cover-gas change of the VCT. The possibility of an unevaluated accident was not created since there is no functional change or degradation to any equipment whose basis is evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced as a result of this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-770

TITLE

Control Room Status Information of Two Containment Isolation Valves

DESCRIPTION

This change modified control circuitries that indicate and alarm inoperable and bypass status of subject valves in the Control Room. The purpose of the change was to provide Control Room indications and alarms of the status of Component Cooling Water (CCW) motor-operated valves, HV-6223 and HV-6236.

SAFETY EVALUATION

The subject valves are safety-related. This modification required a revision to Table 7.5.1 and Figure 7.5.2 of the FSAR. Implementing this change provided additional information on equipment status in the Control Room to meet the requirements of NRC Regulatory Guide 1.47. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the modification does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created by this modification. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-774

TITLE

Interlocks and Status Lights for Heat Treating Mode of Operation

DESCRIPTION

One change modified the circuits to the main turbine condenser pressure (vacuum) switches. The other change modified the turbine control logic to allow the condenser vacuum trip setpoint to be reset from 4.5" Hg absolute to 6.5" Hg absolute during circulating water heat treatment for more operational flexibility. The modifications resulted from Startup Problem Reports which identified problems caused by the wide deadband of the main turbine condenser pressure switches.

SAFETY EVALUATION

This modification was nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. This modification reduces the probability of a turbine trip, and thereby reduces the probability of a reactor scram. The possibility of an unevaluated accident was not created by this modification. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-778

TITLE

Relocation of Radwaste Discharge Line

DESCRIPTION

This facility change relocated the radwaste discharge line from its current location in the Circulating Water System weir vent structure (an unrestricted area) to a location inside the Radiologically Controlled Area. The radwaste discharge line was routed to the Saltwater Cooling System on the discharge side of each Component Cooling Water Heat Exchanger. The associated instruments, proportional samplers and interlocks were also installed.

SAFETY EVALUATION

The relocation of the radwaste discharge line is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change as no equipment whose basis is discussed in Technical Specification sections was impacted. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-854

TITLE

Stroke Positioners in Ammonia and Hydrazine Pump Control System.

DESCRIPTION

This change replaced the electropneumatic control system with an electric control system which utilizes an electric stroke length positioner instead of a pneumatic control drive. The modification was necessary because the old system had become obsolete and replacement parts were no longer available.

SAFETY EVALUATION

The replacement of an electropneumatic control system is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced because no equipment used as a basis for any Technical Specification Limiting Condition of Operation or Surveillance Requirement was functionally changed or degraded. Therefore, there was no unreviewed safety question associated with this modification.

ATTACHMENT 2

UNIT 3

1983 FACILITY CHANGESTABLE OF CONTENTS

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TITLE

Additional Motor Control Centers (MCC's) in Engineered Safety Features (ESF) Switchgear Rooms

DESCRIPTION

This modification installed two Class 1E (480 Volt) MCC's (2BRA & 2BRB), one for each of the two safety load groups A and B. The change was to accommodate known and anticipated load additions, including motor operated valves MOVs for Shutdown Cooling System (SDCS) and Inadequate Core Cooling (ICC) Uninterruptible Power Supply (UPS) loads.

SAFETY EVALUATION

The additional MCC's are safety-related. The FSAR Section 8.3.1.1.3, Table 8.3-2, Table 8.3-1, Figure 8.3-6, and Figure 8.3-7 were modified to include the MCCs addition to the ESF Busses 3B04 and 3B06. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased by this change. The subject design change ensures adequate margin in MCC source for adding loads related to SDCS modifications and Class 1E loads. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced because the addition of two MCC's provided adequate margins to add increasingly expanding Class 1E loads covered in the Technical Specifications. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-82-293

TITLE

Improvement of Process Sample Operation For Various Plant Systems

DESCRIPTION

The purpose of this proposed change is to improve the plant Process Sampling System operations. The changes implemented by this facility change are as follows:

1. Improved drainage capacity for existing drainage systems as required.
2. Unique installations as required for boric acid water.
3. Catch basins for sample points, routed to the nearest floor drain or sump, are provided where wet floors would constitute a dangerous condition.
4. Local gas sample stations modified to obtain pressurized samples and new station design.
5. Modification of boric acid sample points to include heat tracing of pipe or tubing sample lines.
6. Feedwater heater sample points designed with portable cooler and vacuum pump for taking samples under process vacuum conditions.
7. Permanent sample coolers are provided where required.

SAFETY EVALUATION

Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any incident evaluated in the FSAR. The new changes constitute an improvement to the existing sample system. The possibility of an unevaluated accident was not created, since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-82-612

TITLE

Addition of Drain Line for Collection of Reactor Coolant Leakage

DESCRIPTION

This modification provided a tapped hole in each Reactor Coolant Pump drive mount and installed piping to a gravity drain to remove borated reactor coolant which leaks and collects in the drive-mount area.

SAFETY EVALUATION

The Reactor Coolant Pumps are safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident or malfunction of equipment important to safety were increased because the change ensures operation within the design basis of FSAR Sections 5.4.1 and 9.3.3. The possibility of an unevaluated accident was not created because there were no changes in the design function of the system. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-002

TITLE

Replacement of Safety Injection Actuation Signal (SIAS) by Containment Isolation Actuation Signal (CIAS) for Component Cooling Water (CCW) Noncritical Loop Valves Outside the Containment

DESCRIPTION

This change removed the SIAS from the CCW noncritical loop containment isolation valves 3HV-6211 and 3HV-6216 and CCW critical/noncritical loop isolation valves 3HV-6212, 3HV-6213, 3HV-6218 and 3HV-6219 and replaced it with CIAS which provided closure of these valves upon a high energy event in the containment. It is desirable to maintain CCW flow during a SIAS so as to minimize damage to the Reactor Coolant Pump (RCP) seals and the Control Element Drive Mechanism (CEDM) windings due to a loss of coolant flow. This modification eliminated this unnecessary isolation.

SAFETY EVALUATION

The CCW system is safety-related and interfaces with the RCP's and Engineered Safety Features Actuation System. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased by this change. The possibility of an unevaluated accident was not created since the change will minimize the cumulative damage caused by interruptions of CCW which will result in an increase in RCP availability for non-LOCA events and a reduction in the the possibility of excessive Reactor Coolant System (RCS) leakage resulting from seal failures. There was a change to Technical Specification 3.3.2 and Table 3.3-5 to include this modification. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-003

TITLE

Addition of Containment Isolation Actuation Signal (CIAS) for Component Cooling Water (CCW) Noncritical Loop Valves Inside the Containment

DESCRIPTION

This modification added (CIAS) to (CCW) noncritical loop supply and return containment isolation valves (3HV-6223 and 3HV-6236) inside the containment. The change was made pursuant to the criteria for containment isolation for open loop systems, FSAR Section 6.2.4.1E and General Design Criteria 55 and 56. These modifications ensure that on LOCA or steam line rupture these valves will close, reducing the possibility of releasing radioactive materials to the atmosphere and maintaining containment integrity.

SAFETY EVALUATION

The CCW system is safety-related and interfaces with the Reactor Coolant Pumps and Engineered Safety Feature Actuation System. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because there is no effect on the response of the CCW system and these valves can still be actuated manually at the operator's discretion. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. There was a change to Technical Specification 3.3.2, Tables 3.3-5 and 3.6-1. This change minimizes the possibility of release of radioactive materials to the atmosphere. No margin of safety in the basis for any Technical Specification was reduced by this change since it supports the intent of the basis of the Technical Specifications. Therefore, there was no unreviewed safety question associated with the change.

FACILITY CHANGE 2/3-83-004

TITLE

Deletion of Automatic Closure of Component Cooling Water (CCW) Valve

DESCRIPTION

This modification provided for opening and closing of the control valve located in the CCW return line, by manual means only. The modification was incorporated to minimize the possibility of the supply of CCW being interrupted to the Reactor Coolant Pump (RCP) Seal Heat Exchanger.

SAFETY EVALUATION

The CCW system is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. This modification makes the system more reliable by protecting the RCP seals from high temperature excursions due to loss of CCW. The possibility of an unevaluated accident was not created, since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-016

TITLE

Addition of New Air Conditioning System for Control Element Drive Motor (CEDM)
Control Cabinet Room

DESCRIPTION

This modification added an air conditioning system to the CEDM Control Cabinet Room. This system maintains a maximum temperature of 75°F and approximate relative humidity of 50% at the maximum space cooling load. The modification added an air conditioning unit to the CEDM room sized for 50% of the total cooling load.

SAFETY EVALUATION

The CEDM Control Room cabinets are not safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change did not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. There was a revision to Section 9.5.1.5.10 of the FSAR to address the deviation in fire damper and fan operation upon sensing a fire; also Sections 3.2 and 9.4.2.11 were changed to reflect the new design parameters. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-030

TITLE

Installation of a Shutdown Cooling Low-Flow Alarm for Low Pressure Safety Injection Flow

DESCRIPTION

This modification added a low-flow alarm circuit to the Low Pressure Safety Injection System (LPSI) to monitor the Shutdown Cooling System (SDCS) function of the LPSI. The addition of this alarm was considered necessary to assure prompt corrective action on loss of this flow, since the LPSI pumps have their discharges below their impellers and they are susceptible to gas-binding. The new alarm to the plant's annunciator system assures the SDCS will be properly vented and prevent possible LPSI pump damage.

SAFETY EVALUATION

The Low-Flow Alarm is nonsafety-related but interfaces with the LPSI system, which is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident will be increased because the change will not effect the ability of the LPSI pump to perform its safety function and will assure prompt corrective action on loss of flow. This change added annunciation capability to the SDC portion of LPSI and will not impact events which require LPSI System operation. The possibility of an unevaluated accident will not be created since there was no functional change or degradation to the LPSI pumps or any interfacing equipment. No margin of safety in the basis for any Technical Specification will be reduced by this change because there is no functional change or degradation of any equipment used as a basis for any Technical Specification. This change ensures operators will be made aware of low flow situations during SDCS. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-040

TITLE

Steam Generator Blowdown System Bypass Line

DESCRIPTION

The modification added a bypass line to the blowdown system and additional controls and instrumentation required for proper monitoring of the blowdown processing system bypass during all modes of operation. The change routes blowdown flow from the steam generators directly to the circulating water system discharge and facilitates steam generator water chemistry control during periods when the blowdown processing system is unavailable.

SAFETY EVALUATION

The Steam Generator Blowdown Bypass System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the system function remains as originally intended and the change ensures compliance with the FSAR design basis. The possibility of an unevaluated accident was not created because the system is designed to function identically to the existing blowdown processing system. The Technical Specification 3/4.3 was revised to include this change. No margin of safety to the basis for any Technical Specification is reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-046

TITLE

Additional Deluge Fire Protection

DESCRIPTION

The change added a Deluge Fire Protection System over the turbine and motor drivers of the adjacent Feedwater Pumps (P-504 and P-140). This system utilizes a deluge valve with actuation from heat detectors located in accordance with Section I.I, Fire Detector Design Basis, of the Fire Hazard Analysis. This system and the installation of the lube oil shroud (addressed in a previous facility change) ensured adequate fire protection to the motor driven pump (P-504) from the turbine driven pump's (P-140) lube oil system.

SAFETY EVALUATION

The Deluge Fire Protection System is nonsafety-related. Revisions were made to the safety evaluation for the Fire Protection System in Section 9.5.1.3 Paragraph D, of the FSAR, to include a dry pipe deluge system in the Auxiliary Feedwater Pump Room and to Table 9.5-2 of the FSAR to add heat detectors inside the Auxiliary Feedwater Pump Room. Also revisions were made to the Technical Specification in Table 3.3-11 to include addition of heat detectors for deluge actuation, and to Table 3.7-5 to include the addition of a deluge system in the auxiliary feedwater area over the adjacent pump drivers. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change ensures the required fire protection is maintained, thus complying with the FSAR design basis. The possibility of an unevaluated accident was not created since there are no changes in the design function of the system. No margin of safety to the basis for any Technical Specification was reduced by this change, as there was no impact on those parameters or surveillance requirements governed by the existing Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-049

TITLE

Addition of Fire Detectors

DESCRIPTION

This modification installed additional fire detectors in Unit 3 Fire Zones 11, 28, 45, 62, 72 and in Room 248A of the Technical Support Center. This facility change was implemented to satisfy Unit 3 Operating License condition.

SAFETY EVALUATION

The installation of these additional fire detectors is nonsafety-related. The change required editorial revisions to the Technical Specifications, Fire Hazard Analysis and the FSAR to include these additional detectors. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because this addition of fire detectors ensure adequate early warning detection of fires in the specified areas. The possibility of an unevaluated accident was not created, since there was no functional change or degradation of equipment used as a basis for any incident evaluated in FSAR. This change required Table 3.3-11 of the Technical Specifications to be updated to include the added detectors and increases the number of detectors which are required to demonstrate operability per the Technical Specification Section 3/4 3.3.7. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety questions associated with this modification.

FACILITY CHANGE 2/3-83-200

TITLE

Installation of Emergency Lighting

DESCRIPTION

This modification installed new self-contained sealed beam battery power-pack lighting units in the area of the Intake Structure and in specified access and egress routes. The change corrected the deficiencies identified in the Emergency Lighting System relative to conformance to the Fire Hazard Analysis.

SAFETY EVALUATION

The Emergency Lighting System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because no design basis was changed. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced since the equipment covered by this change is not governed by the Technical Specifications. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-228

TITLE

Modification of Turbocharger and Spring Drive Gears on Diesel Generators

DESCRIPTION

This modification changed the standard duty turbochargers to heavy-duty turbochargers. The new turbochargers were developed by General Motors (diesel generator manufacturer) specifically for use on emergency diesel generator sets and incorporate stronger drive gears. Also, spring-drive gears were changed in accordance with General Motors recommendations for engines where reliability is high priority.

SAFETY EVALUATION

The emergency diesel generators are safety-related. This changeout is in response to NRC Question 040-72. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident or malfunction evaluated in the FSAR. The possibility of an unevaluated accident was not created, since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this change.

FACILITY CHANGE 2/3-83-258

TITLE

Component Cooling Water (CCW) Isolation Valve Interlock Scheme

DESCRIPTION

This modification revised the interlock scheme for the isolation valves of the CCW noncritical loop. The change allows the closed train isolation valves to begin opening while the opened train isolation valves are being closed.

Also, the setpoints for the CCW Surge Tank Pressure Relief Valves and Surge Tank Nitrogen Regulator Valves are increased slightly to mitigate any mass transfer transient between CCW loops.

SAFETY EVALUATION

This modification is safety-related. System operation as described in Section 9.2.2.2.3.4 of the FSAR has been revised to incorporate this change. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased. This modification reduced the likelihood of Reactor Coolant Pump seal failure by providing continuous Component Cooling Water to the seal coolers. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, no unreviewed safety question was associated with this change.

FACILITY CHANGE 2/3-83-281

TITLE

Sampler and Flow Totalizer for the Steam Generator Blowdown Sample System (SGBSS)

DESCRIPTION

This change enhanced the SGBSS in order to provide proper monitoring of the Blowdown Processing System bypass during all its modes of operation. The modification also added a flow totalizer and a proportional sampler to the existing SGBSS of each steam generator.

SAFETY EVALUATION

The Steam Generator Blowdown Sampling System is nonsafety-related. Section 10.4.8 of the FSAR has been revised to include the additional controls and instrumentation required by this change. Section 11.5 of the FSAR has been revised to include the revised sampling information. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the failure modes and related affects are no different from that previously analyzed. The possibility of an unevaluated accident was not created since the system is designed to function identically to the previously existing Blowdown Processing System. Technical Specification 3/4.3 was also revised to include this modification. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-292

TITLE

Nuisance Alarm Elimination - Hot Leg Injection Header

DESCRIPTION

This modification eliminated a nuisance alarm resulting from small leakages past check valve 1204-3"-156 in the Hot Leg Injection Header No. 1, due to the short-length and small volume of the pipe section between the redundant check valves (1204-3"-156 and 1204-3"-158). The nuisance alarm was suppressed by disconnecting the cable to the high pressure alarm of loop 9422. The signal to the computer and the Control Room pressure indicator was retained.

SAFETY EVALUATION

The alarm is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created by this change. No margin of safety in the basis for any Technical Specification was reduced since the affected alarm is not required by any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-305

TITLE

Rerouting of Movable Incore Detector (MICD) Drain

DESCRIPTION

This change rerouted the MICD drain lines from the Reactor Coolant Drain Tank to the Containment Sump to prevent water backflow to the MICD transfer box, with the potential of ultimately damaging the MICD system. This change assures the proper operation of the MICD and proper drainage of water if leakage occurs in the system.

SAFETY EVALUATION

The MICD System is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because no functional change has occurred in the moveable in-core detector system. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-429

TITLE

Reactor Vessel and Refueling Cavity Water Level Indication

DESCRIPTION

This change added an upper reactor vessel and refueling cavity level monitoring system. The level monitoring system measures the water level from the reactor hot leg up to the top of the refueling cavity. This modification will assist operations personnel in maintaining Reactor Coolant System water level within Technical Specification limits during refueling.

SAFETY EVALUATION

The level indication is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the change does not modify any existing FSAR design basis. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced since the change had no impact on any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-461

TITLE

Boric Acid Batching Tank Temperature Alarm Relocation

DESCRIPTION

This change moved the annunciation for the Boric Acid Batching Tank temperature alarm from the Main Control Room Panel to the Radwaste Local Control Panel. This modification eliminated an unnecessary alarm in the Control Room and improved the response time to the temperature alarm making the process more efficient.

SAFETY EVALUATION

The alarm is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The overall function of the annunciator and the process was unchanged by this modification. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-464

TITLE

Deletion of Remote Shutdown Panel (L-42) "Door Open" Alarm

DESCRIPTION

This modification deleted the "Shutdown Panel (L-42) Door Open" alarm and annunciator window from the main Control Room Panel, and deleted the alarm initiating switches and circuit from the shutdown panel door. The intrusion alarm was not needed since the shutdown panel was located in an area which is secured by a key locked door that is also monitored by the security system.

SAFETY EVALUATION

The annunciator system is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The possibility of an unevaluated accident was not created because the design function and characteristics of the shutdown panel were not changed or degraded in any way. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-497

TITLE

Shutdown Cooling System (SDCS) Valve Instrumentation

DESCRIPTION

This modification provided a continuous valve position indication for SDCS Valves 3HV-8150 and 3HV-8151 at the main Control Room, and valve status inputs to the Critical Function Monitoring System (CFMS) for Valves 3HV-0396, 3HV-8160 and 3HV-8161. The change was necessitated to provide adequate valve status information to the operator to preclude the potential risk of excessive heatup or cooldown of the Reactor Coolant System resulting from lack of adequate SDCS valve status information.

SAFETY EVALUATION

The SDCS is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. No control function or safety-related display function was involved. The possibility of an unevaluated accident was not created due to this modification. No margin of safety in the basis for any Technical Specification was reduced because there was no functional change or degradation of any equipment used as a basis for any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-541

TITLE

Additional Communication Equipment at the Emergency Plant Parameter Monitoring System (EPPMS) Panel

DESCRIPTION

This modification provided telephone communication capability between the EPPMS panel area and the Evacuation Shutdown Panel Room which may be used in the event of safe shutdown operation from this latter panel. The installation consisted of a telephone, and associated cabling consistent with existing communication design.

SAFETY EVALUATION

The additional communication equipment is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any incident evaluated in FSAR. This design change did not affect the function of the existing communication system. The possibility of an unevaluated accident was not created by this change. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

TITLE

Installation of Non-1E Uninterruptible Power Supply (UPS) System

DESCRIPTION

This modification installed a UPS system to provide enough alternate power sources and switching capability to ensure continuous power to the non-1E instrumentation power panels during loss of offsite power or other loss of AC power events. The primary power to the UPS is from a Class 1E source via an isolation device consistent with FSAR Section 8.1.4.3.14A, with the diesel-generator as the backup. In addition the UPS system has a battery ride-through capability with an alternate AC power source from a non-1E bus.

SAFETY EVALUATION

The UPS is nonsafety-related but interfaces with safety-related systems via an isolation circuit breaker. This change improves the reliability of power to the non-1E instrument power panels per the SCE evaluation of IE Information Notice No. 80-10 as supplemented by the March 1980 NSAC/INPO report. Isolation circuit breaker 3A0412 will provide proper separation between the existing Quality Class II switchgear and the new Quality Class III UPS. Although the FSAR response to NRC Question 222.44 was revised, no design bases have been changed. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because this change improves reliability of power to the non-1E instrument power panels. The possibility of an unevaluated accident of a different type than any previously evaluated in the FSAR was not created. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-575

TITLE

Replacement of Control Room and Local Differential Pressure Scales

DESCRIPTION

This modification replaced the original 0-15 psid range scale with a 0-25 psid scale. The affected instruments were 2PDIT-6484 and 2PDIT-6485, which monitor pressure drop across the Component Cooling Water (CCW) Heat Exchangers, as well as 2PDI-6484, and 2PDI-6485, which display the differential pressure on panel 2CR-64. This change was required due to a higher than expected rate of buildup of saltwater debris coming in through the screens.

SAFETY EVALUATION

The CCW system is quality class 2, safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created since there was no functional change or degradation to any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced by this change. Therefore there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-644

TITLE

Bypass Line Installation Around Volume Control Tank (VCT)

DESCRIPTION

This facility change installed a bypass line with a locked-close globe valve around the VCT Gas Discharge Pressure Control Valve (PCV-9210) for use during a cover-gas change to vent and purge the tank.

SAFETY EVALUATION

The Bypass Line Installation is safety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The change did not alter the functional design of the Chemical and Volume Control System since the bypass valve is locked closed during all system modes except during cover-gas change of the VCT. The possibility of an unevaluated accident was not created since there is no functional change or degradation to any equipment whose basis is evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced as a result of this change. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-671

TITLE

Steam Generator Blowdown Flash Tank Replacement

DESCRIPTION

This change provided for the replacing of the existing Steam Generator Blowdown Flash Tank with a larger tank. A steam purifier and modified piping and instrumentation to accommodate the change were also installed.

SAFETY EVALUATION

The Blowdown Processing System is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased because the change does not affect the function of any equipment used as a basis for any accident or malfunction evaluated in the FSAR. The possibility of an unevaluated accident was not created, since there was no functional change or degradation of any equipment used as a basis for any incident evaluated in the FSAR. No margin of safety to the basis for any Technical Specification was reduced by this change because there was no functional change or degradation of any equipment as a basis for any Technical Specification. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-771

TITLE

Control Room Status Information of Two Containment Isolation Valves

DESCRIPTION

This change modified control circuitries that indicate and alarm inoperable and bypass status of subject valves in the Control Room. The purpose of the change was to provide Control Room indications and alarms of the status of Component Cooling Water (CCW) motor-operated valves, HV-6223 and HV-6236.

SAFETY EVALUATION

The subject valves are safety-related. This modification required a revision to Table 7.5.1 and Figure 7.5.2 of the FSAR. Implementing this change provided additional information on equipment status in the Control Room to meet the requirements of NRC Regulatory Guide 1.47. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased since the modification does not affect the function of any equipment used as a basis for any accident evaluated in the FSAR. The possibility of an unevaluated accident was not created by this modification. No margin of safety in the basis for any Technical Specification was reduced. Therefore, there was no unreviewed safety question associated with this modification.

FACILITY CHANGE 2/3-83-874

TITLE

Stroke Positioners in Ammonia and Hydrazine Pump Control System.

DESCRIPTION

This change replaced the electropneumatic control system with an electric control system which utilizes an electric stroke length positioner instead of a pneumatic control drive. The modification was necessary because the old system had become obsolete and replacement parts were no longer available.

SAFETY EVALUATION

The replacement of an electropneumatic control system is nonsafety-related. Review of the change concluded that neither the probability nor the consequences of any previously evaluated accident were increased as a result of this change. The possibility of an unevaluated accident was not created since there was no functional change or degradation of any equipment evaluated in the FSAR. No margin of safety in the basis for any Technical Specification was reduced because no equipment used as a basis for any Technical Specification Limiting Condition of Operation or Surveillance Requirement was functionally changed or degraded. Therefore, there was no unreviewed safety question associated with this modification.

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September 24, 1984

U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. J. B. Martin, Regional Administrator

Dear Sir:

Subject: Docket Nos. 50-361 and 50-362
Facility Change Annual Report
San Onofre Nuclear Generating Station, Units 2 and 3

Pursuant to 10 CFR 50.59(b), this submittal provides the original and 39 copies of the required annual report describing facility changes at Units 2 and 3. This report covers the period January 1, 1983 to December 31, 1983, and is submitted in two parts; Attachment (1) - "Unit 2, 1983 Facility Change" and Attachment (2) - "Unit 3, 1983 Facility Changes."

If there are any questions regarding this report, please so advise.

JG Haynes

Enclosures

cc: A. E. Chaffee (USNRC Senior Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

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