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Georgia Power
the southern electric system

HL-2074
003006

February 28, 1992

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
ANNUAL OPERATING REPORT FOR 1991

Gentlemen:

Enclosed is the 1991 Annual Operating Report for Plant Hatch Unit 1, Docket Number 50-321, and Plant Hatch Unit 2, Docket Number 50-366. This report is submitted in accordance with the requirements of Technical Specifications sections 6.9.1.4 and 6.9.1.5.

If you have any questions in this regard, please call this office.

Sincerely,

J. T. Beckham, Jr.

OCV/cr

Enclosure:
1991 Annual Operating Report for Plant Hatch Units 1 and 2

cc: (See next page.)

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1/1

Georgia Power

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003006

ENCLOSURE

PLANT EDWIN I. HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 and 50-366
OPERATING LICENSES DPR-57 and NPF-5

ANNUAL OPERATING REPORT
1991

EDWIN I. HATCH NUCLEAR PLANT - UNITS 1 AND 2
ANNUAL OPERATING REPORT
1991

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GLOSSARY

ACRONYMS AND ABBREVIATIONS

AC	alternating current
ADS	automatic depressurization system
A/E	architect/engineer
ALARA	as low as reasonably achievable
ATTS	analog transmitter trip system
ATWS	anticipated transient without scram
ATWS/RPT	anticipated transient without scram/recirculation pump trip
ANI	American Nuclear Insurers
ANS	American Nuclear Society
ANSI	American National Standards Institute
AOV	air-operated valve
APLHGR	average planar linear heat generation rate
ARI	alternate rod insertion
ARM	area radiation monitor
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
BOP	balance of plant
BWR	boiling water reactor
BWROG	Boiling Water Reactor Owners Group
CAB	controlled access barrier
CCTV	closed circuit television
CCW	closed cooling water
CCWS	closed cooling water system
CFR	Code of Federal Regulations
COLR	Core Operating Limits Report
CRD	control rod drive
CRDA	control rod drop accident
CRDHS	control rod drive hydraulic system
CRDM	control rod drive mechanism
CS	core spray
CST	condensate storage tank
CSTS	condensate storage and transfer system
DBA	design basis accident
DBE	design basis earthquake
DC	direct current
DCR	design change request
DCRDR	detailed control room design review
ECCS	emergency core cooling system
ETS	Environmental Technical Specifications

GLOSSARY (continued)

FE	flow element
FHA	fire hazards analysis
FPCC	fuel pool cooling and cleanup
FSAR	final safety analysis report
GDC	general design criterion
GE	general electric
GIP	generic implementation procedure
GPC	Georgia Power Company
HCU	hydraulic control unit
HED	human engineering discrepancy
HNP	hatch nuclear plant
HPCI	high pressure coolant injection
HVAC	heating, ventilation, and air-conditioning
HWC	hydrogen water chemistry
I&C	instrumentation and control
IE	inspection and enforcement
IEB	inspection and enforcement bulletin
IED	instrument elementary diagram
IGSCC	intergranular stress corrosion cracking
ILRT	integrated leak rate test
IN	information notice
INPO	Institute of Nuclear Power Operations
IR	inspection report
ISI	inservice inspection
IST	inservice testing
LCO	limiting condition for operation
LDS	leak detection system
LHGR	linear heat generation rate
LLRT	local leak rate test
LLS	low-low set
LOCA	loss of coolant accident
LOSP	loss of offsite power
LPCI	low pressure coolant injection

GLOSSARY (continued)

MAPLHGR	maximum average planar linear heat generation rate
MCC	motor control center
MCR	main control room
MCREC	main control room environmental control
MG	motor generator
MOV	motor-operated valve
MCPR	minimum critical power ratio
MPL	master parts list
MSL	main steam line
MSLB	main steam line break
MSIV	main steam isolation valve
MSIV-LCS	main steam isolation valve - leakage control system
NDE	nondestructive examination
NDTT	nil ductility transition temperature
NPSH	net positive suction head
NRC	Nuclear Regulatory Commission
NSSS	nuclear steam supply system
OBE	operating basis earthquake
OSHA	Occupational Safety and Health Act
PASS	post accident sampling system
PCIS	primary containment isolation system
PCIV	primary containment isolation valve
P&ID	piping and instrumentation diagram
PRB	Plant Review Board
PSW	plant service water
QA	quality assurance
RBCCW	reactor building closed cooling water
RBCWS	reactor building chilled water system
RCIC	reactor core isolation cooling
RG	Regulatory Guide
RHR	residual heat removal
RHRSW	residual heat removal service water
RMCS	reactor manual control system
RPS	reactor protection system
RPV	reactor pressure vessel
RRS	reactor recirculation system
RSCS	rod sequence control system
RWCS	reactor water cleanup system
RWM	rod worth minimizer

GLOSSARY (continued)

SBGT	standby gas treatment
SDV	scram discharge volume
SFP	spent fuel pool
SFPCCS	spent fuel pool cooling and cleanup system
SJAE	steam jet air ejector
SLCS	standby liquid control system
SNC	Southern Nuclear Operating Company
SMA	seismic margins assessment
SPDS	safety parameter display system
SQUG	Seismic Qualification Utility Group
SRLS	Supplemental Reload Licensing Submittal
SRP	Standard Review Plan
SRV	safety relief valve
TBCCWS	turbine building closed cooling water system
TIP	traversing incore probe
TSC	Technical Support Center
TS	Technical Specifications
USI	unresolved safety issue

INTRODUCTION

The Edwin I. Hatch Nuclear Plant is a two-unit facility located approximately 11 miles north of Baxley, Georgia on U.S. Highway 1. The plant consists of two light water reactors each licensed to operate at a power level of 2436 MWt. The maximum dependable capacities for 1991 were 741 net MWe for Unit 1 and 766 net MWe for Unit 2. General Electric Company furnished the boiling water reactor, the nuclear steam supply system, the turbine, and the generator for both units. The plant was designed by Southern Company Services, Inc., with assistance provided by Bechtel Power Corporation. The condenser cooling method employs induced-draft cooling towers and circulating water systems with normal makeup supplies drawn from the Altamaha River.

The plant is a co-owned facility with ownership delegated as follows:

Georgia Power Company	50.1%
Oglethorpe Electric Membership Corporation	30.0%
Municipal Electrical Authority of Georgia	17.7%
City of Dalton, Georgia	2.2%

Licensing information for the units is as follows:

	Unit 1	Unit 2
Docket Number	50-321	50-366
License Issued	08/06/74 (DPR-57)	06/13/78 (NPF-5)
Initial Criticality	09/12/74	07/04/78
Initial Synchronization	11/11/74	09/22/78
Commercial Operation	12/31/75	09/05/79

Georgia Power Company has sole responsibility for overall planning, design, construction, operation, maintenance, and disposal of the Hatch Nuclear Plant.

SAFETY RELIEF VALVE CHALLENGES FOR 1991

Unit 1

Date	Valves
02/12/91	Scram occurred; pressure peaked at 1111 psig; no valves lifted.*
08/09/91	1B21-F013A,B,C,D,E,F,G,H,K,L
09/11/91	1B21-F013A,B,C,D,E,F,G,H,K,L

Unit 2

Date	Valves
02/14/91	Scram occurred; pressure peaked at 1116 psig; no valves lifted.**

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* This event is described in Licensee Event Report 50-321/1991-004 submitted on March 14, 1991.

** This event is described in Licensee Event Report 50-366/1991-003 submitted on March 8, 1991.

SAFETY EVALUATIONS FOR ALL SAFETY-RELATED DESIGN CHANGES, NONSAFETY-RELATED DESIGN CHANGES, AS-BUILT NOTICES, AND OTHER ACTIVITIES RESULTING IN FSAR/FHA UPDATES IN 1991

Pursuant to 10 CFR 50.59, the following is a brief description and summary of the safety evaulation for each change made to safety-related systems and components, and each test or experiment performed during 1991. The safety evaluation summaries address the three criteria used to determine whether a proposed change, test, or experiment involves an unreviewed safety question, i.e.:

1. If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR may be increased.

2. If the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR may be created.

3. If the margin of safety as defined in the Bases of any TS is reduced.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

78-068
Rev 0

Add one nonsafety-related and two safety-related room coolers to the LPCI inverter room to maintain the room at a maximum of 104°F during normal plant operation and 110°F during emergency plant operation, respectively.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Installation of redundant safety-related room coolers ensures a proper environment is provided for the LPCI inverters, which are required for safe shutdown of the plant. The safety-related coolers and associated piping are seismically designed, and the wiring and controls are Class 1E. Automatic isolation of the PSW piping to the nonsafety-related cooler is provided in case of a pipe break in this portion of the system.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR does not result from the change because no new modes of failure are introduced.

3. The modification satisfies the design basis for the LPCI system. The design, function, and operational requirements of the LPCI system are maintained. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

79-475
Rev 0

Install a PASS for online chemical, radioisotopic analysis of the reactor coolant and containment atmosphere during accident conditions as required by NUREG-0578, Recommendation 2.1.8.a; NUREG-0737, Clarification Item II.B.3; and RG 1.97, Revision 2, Table 1, Type E variables.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The sample lines connected to the RPV and primary containment are designed in accordance with Safety Guide 11, thus satisfying 10 CFR 50, Appendix A, GDC 56. Isolation valves capable of automatic operation maintain containment integrity during normal reactor operation and under accident conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The sample lines connected to the RPV and the primary containment meet the requirements of 10 CFR 50, Appendix A, GDC 56.

3. The valves satisfy GDC 56 and will be maintained in accordance with existing PCIV requirements. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

80-098 Rev 1 Increase the setpoint of the pressure switch associated with the diesel generator starting air compressors. Install a new air pressure sensing line to incorporate isolation and drain valves to better facilitate maintenance on the air start system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Increasing the pressure switch setpoint to 235 psig will keep the range of instrument drift above the 225 psig limit stated in the TS. Adding a sensing line enhances maintenance practices and does not adversely affect the function or operation of the air start system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Increasing the pressure switch setpoint does not alter the function of the affected system. The new pressure still provides a five start capability but does not exceed the design limit of 275 psig.

3. The margin of safety is maintained, since shifting the instrument drift away from the limit will prevent a TS violation.

84-059 Rev 1 Replace the carbon steel-bowl assemblies on PSW pumps P41-C001A, B, C, and D with stainless-steel bowl assemblies to reduce required maintenance due to pump degradation caused by corrosion and erosion, thereby increasing the service life and reducing the frequency of required maintenance on the PSW pumps. Install a new transition assembly between the existing Unit 1 pump column and the new bowl assemblies to make the Unit 1 and Unit 2 PSW bowl assemblies interchangeable.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The PSW pumps, with the new stainless-steel bowl assemblies and the transition assembly, meet or exceed the system performance requirements of the original pump design. A seismic-stress analysis showed the pumps meet all requirements of the original pump specification and will perform their intended function during OBE and DBE loading conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The PSW pumps, with the new stainless-steel bowl assemblies and transition assembly, meet the design and operational requirements of the original pumps.

3. This modification meets the design and specification requirements of the original pumps. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

84-060 Rev 0

Replace the carbon-steel bowl assemblies on Unit 1 PSW pumps P41-C001A, B, C, and D with stainless-steel bowl assemblies to increase service life and reduce the frequency of required maintenance on the PSW pumps due to pump degradation caused by corrosion and erosion.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The PSW pumps with the new stainless-steel bowl assemblies will meet the same system performance and quality requirements as the original design. A seismic-stress analysis showed the pumps will continue to meet all specification requirements and will perform their intended function during OBE and DBE loading conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The PSW pumps with the new stainless-steel bowl assemblies meet the design and operational requirements of the original pumps.

3. This modification meets the same design and specification requirements as the original pumps. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

84-065 Rev 1

Replace the carbon-steel bowl assemblies on the RHRSW pumps with stainless-steel bowl assemblies to reduce required maintenance due to pump degradation caused by corrosion and erosion, thereby reducing the frequency of required maintenance on the RHRSW pumps. Install a new transition assembly between the existing Unit 1 pump column and the new bowl assemblies to make the Units 1 and 2 bowl assemblies interchangeable.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The RHRSW pumps, with the new stainless-steel bowl assemblies and the transition assembly, meet or exceed the system performance requirements of the original design. A seismic- stress analysis showed the pumps meet all requirements of the original pump specification and will perform their intended function during OBE and DBE loading conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The RHRSW pumps, with the new stainless-steel bowl assemblies and transition assembly, meet the design and operational requirements of the original pumps.

3. This modification meets the design and specification requirements of the original pumps. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

84-137 Rev 0 Modify certain safety and nonsafety setpoints in the RPV, CRD, RHR, CS, HPCI, RWCU, RBCCW and other systems to account for loop accuracy, drift, and calibration tolerances, according to the guidance of RG 1.105.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Setpoints were selected by accounting for all uncertainties in order to ensure sufficient margin exists between the setpoint, and the analytical and process safety limit. Each setpoint was selected to ensure that normal process conditions do not result in inappropriate actuation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Setpoints were selected using the guidance of RG 1.105 and are in conformance with the FSAR. No modifications to the logic associated with the instruments will be made.

3. Setpoint calculations were reviewed to ensure previously established safety margins are not decreased. No TS changes are required.

84-217 Rev 0 Reinstall cables and penetration hardware in the secondary containment electrical penetrations in conformance with vendor recommendations.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The methods are fully qualified and supported by vendor test reports. The cables are rerouted in conformance with the plant's separation criteria.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The material and methods are in accordance with original vendor recommendations. No new untested material or methods are employed.

3. The configuration of the penetrations is in conformance with approved materials and construction. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

85-115 Rev 0 Replace existing TIP system with a new and improved TIP system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The overall operation of the TIP system is not safety related in that the function of the replacement drive mechanism, the indexer mechanism, and the control unit does not affect any systems which directly possess the potential to bring about a DBA. Isolation of the primary containment by means of the system's ball valve or shear valve to prevent the release of radioactive material resulting from a DBA is unaffected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The operational relationship of the replacement equipment with other pieces of equipment in the system does not possess the potential to cause the ball valve or shear valve to simultaneously malfunction. Ball valve operation is dependent on the operation of the drive mechanism and the control unit for isolating primary containment when the detector is inserted into the core. The shear valve is independent of all other system equipment and provides a backup method for isolating the primary containment. In the event the ball valve, drive mechanism, or control unit malfunction, and the detector is inserted into the core, primary containment isolation is achievable by means of the shear valve. All equipment is seismically mounted to ensure nearby equipment is not adversely affected.

3. Automatic initiation of the primary containment isolation function of the system's ball valves is unaffected by this modification; therefore, the margin of safety is not reduced.

86-208 Rev 0

Replace PSW division isolation valves P41-F308, P41-F310A through D, P41-F312, P41-F314, P41-F317A and B, P41-F401A, P41-F402A and B, and P41-F403B to eliminate divisional cross-leakage and pressurization within the nonoperating division, thus preventing the need to shut down both divisions to make repairs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement valves are enhancements in both design and operation, and function just as the original valves which were previously evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not alter the operation of the PSW system or the ability of the system to perform its safety function.

3. The replacement valves meet or exceed the original valves in both design and operation. System isolation performance is be enhanced as a result of this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

86-307 Rev 0

Modify safety-related pipe supports on the MSL and the main steam relief valve discharge line piping to satisfy ASME Code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Upgrading several MSL pipe supports enhances the main steam system and satisfies ASME Code requirements to assure safe plant operation. System operation and function remain unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The modifications upgrade several existing pipe supports to satisfy ASME Code criteria.

3. The TS do not specifically address the subject piping and supports. The operability of the system is enhanced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

87-094 Rev 0 Replace the existing environmentally qualified Class 1E Dietz flow switches with environmentally qualified Dwyer flow switches to improve the reliability of the safety-related equipment cooling and the SBGT systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The reliability of the systems is improved. The function and operation of the flow switches remain the same.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The functional operation of the equipment is not altered by this modification. No new modes of failure are introduced. The replacement switches meet existing design criteria.

3. The TS address the equipment area coolers in each pump compartment and the operation of the SBGT systems. This design change does not affect any system logic, setpoint, safety limit, or response time. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

87-097 Rev 0 Modify safety-related solenoid valves in the process radiation monitoring, RHR, and primary containment isolation systems to extend required preventive maintenance of certain internals.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The upgrade kits were tested and qualified consistent with the requirements of 10 CFR 50.49. Preventive maintenance intervals, determined from test reports, ensure the solenoid valves are capable of performing their intended safety function under normal and accident conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not alter valve function or operation. The modified valves perform identical functions to the valves. No logic or power supply modifications will be made.

3. This modification does not affect valve function. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

87-114 Rev 0 Replace the station service battery chargers with functionally and operationally equivalent units for maintaining and restoring the state of charge of the station service batteries.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement battery chargers are functionally and operationally equivalent units with enhanced alarm capabilities that meet all codes and standards for Class 1E service at Plant Hatch. Responses of plant personnel to evaluated accidents and ESF responses to equipment malfunctions are unchanged. All equipment supports and anchorage are designed to Category I criteria.

2. Since the replacement chargers are functionally and operationally equivalent units meeting all codes and standards for Class 1E service, the probability of occurrence of an accident or a failure mode different from those already evaluated is not increased.

3. The functionally and operationally equivalent replacement chargers do not change any TS safety limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-068 Rev 1 Replace the existing Sigma pressure indicating switch (drywell torus nitrogen make-up pressure) with a comparable Dixson SA101 switch that will provide indication of display failure.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement pressure indicating switch is equivalent to the original and meets the same specifications. This modification does not impact the function or operation of the affected system but does provide indication of display failure in accordance with NUREG 0700.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new pressure indicating switch meets the design requirements of the original switch.

3. The replacement switch meets the same specifications as the original. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-146 Rev 0

Remove the existing nonsafety-related control building chilled water system and associated valves, ducts, and instrumentation. Install new equipment to provide cooling to the LPCI inverter room and vital AC room on both units. Relocate the LPCI inverter disconnect switch to enhance operation. Isolate, cut, and cap the PSW piping to the original cooler to preclude the possibility of any leakage.

1. The design permits installation of a system which is not taken credit for in any postulated accident. The vital AC rooms on both units are nonsafety-related areas that do not require cooling following an accident. The LPCI inverter room is a safety-related area which is also cooled by two 100-percent-capacity safety-related coolers.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new design provides cooling to the same equipment presently cooled by the existing equipment. The installation was designed considering all applicable codes, standards, and Seismic Category II/I requirements, as necessary. The design precludes the possibility of leakage in the PSW system.

3. No safety-related or TS portion of the PSW system is affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-172 Rev 0

Remove the existing isolator springs on the top two vibration isolators supporting diesel generator engine gauge panels R43-P003A, B and C, and replace them with new captive spring-mount isolators qualified for seismic loads meeting or exceeding the requirements of USI A-46, SMA, and the FSAR.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the gauge panel vibration isolators. The function and operation of the gauges or any other safety-related equipment are not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Upgrading the vibration isolators does not change any operation or function of the gauges or any other equipment important to safety.

3. The new vibration isolators are qualified for seismic load requirements. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-206 Rev 0 Provide additional reactor water level instrumentation to allow more concise measurement of higher levels under operating and abnormal conditions.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The added and modified instrumentation supplying operator information provides no active safety function. Conduit, tubing, supports, and instrumentation are designed to meet existing Seismic Category I and II/I requirements. This modification involves no interaction with safety-related equipment which performs an active safety function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new equipment does not perform a new function and meets previous design requirements. This modification involves and places no new interaction with safety-related equipment performing an active safety function.

3. This instrumentation is not included in the basis for any TS. No limits included in the TS are affected by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-230 Rev 0 Remove the RWM functions from the plant process computer and install the NUMAC RWM as a stand-alone system having the ability to perform rod sequence control and control rod scram time testing functions.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The NUMAC RWM provides rod pattern control consistent with nuclear design criteria for the process computer-based system. Using the system to perform scram time and shutdown margin testing conforms to the FSAR requirements. Equipment reliability is improved, because a more reliable device having self-diagnostic capabilities will now be used.

2. The new equipment does not pose the possibility of an accident or failure mode different from the previous equipment, since it meets the design requirements of the previous equipment.

3. The margin of safety for the CRDA is defined in terms of the peak fuel enthalpy resulting from an excursion. This is controlled by the magnitude of the initiating reactivity insertion, which is restricted by the rod pattern controls imposed by the RWM. Because the rod patterns allowed by the new system are unchanged, the margin of safety is unaffected.

88-304
Rev 0

Install the HWC system to eliminate, in a timely manner, the chemical conditions in the recirculation water that allow IGSCC. The HWC system injects hydrogen into the feedwater at the suctions of the condensate booster pumps to mitigate IGSCC in the recirculation piping. A flow rate of oxygen is injected in the off-gas system upstream of the recombiner to maintain the off-gas system near its normal operating characteristics.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Fuel inspection and operating experience have shown no detrimental effects on fuel and core operation from the use of HWC. The small amounts of hydrogen used do not present problems with hydrogen embrittlement of plant structural materials, post-LOCA explosive mixtures of hydrogen and oxygen in the primary containment or with increased off-gas flow rates. Also, radiation levels inside and outside plant structure remains within 10 CFR 20 limits.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No important-to-safety equipment failure modes are affected by the addition of the HWC system.

3. The change to the MSL radiation setpoints is required due to the increase in MSL radiation above normal attributable N-16 carryover. The only DBE analysis which takes credit for these setpoints is the CRDA. Per procedure, the HWC system is shut down at less than 30-percent reactor power; thus, the setpoint is not changed at low power when the CRDA is applicable. As a result, the margin of safety is not reduced. No other parameter or setpoints discussed in the TS are affected, nor are any added that should be included.

88-334
Rev 0

Improve the anchorage of MCCs R24-S025, R24-S026, and R24-S027 located in the diesel generator building to fully meet the requirements of the SMA methodology or the SQUG GIP for resolution of USI A-46.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The modification upgrades the seismic integrity of the safety related MCCs. The upgrade of the anchorage does not change the function or operation of the MCCs or any other safety related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Upgrading the anchorage of the MCCs does not change any operation or function of the MCCs or any equipment important to safety.

3. No safety limits or limiting conditions for operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-345 Rev 0 Install a platform with grating to provide personnel with safe access to valves 1E41-F3001 and F3012 in the HPCI room.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades personnel safety. The function or operation of the valves, piping, or any other safety-related equipment is not changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The installation of the platform does not change any operation or function of any valve piping or any other equipment important to safety.

3. The platform is designed to withstand a seismic event; no failure points or acceptance limits of any safety equipment are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-004 Rev 0 Add a Unit 1 turbine building steam leak detection system alarm annunciator in the MCR and two Class 1E relays in each of the MCR panels 1H11-P609 and 1H11-P611 to monitor steam lines A, B, C, and D for annunciation.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The design change allows monitoring a system used to mitigate the consequences of an accident analyzed in the FSAR. Annunciation of a turbine building steam leak detection high temperature will facilitate operator action, thereby reducing challenges to safety-related equipment. The function or integrity of equipment important to safety is not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Existing system operation is not affected by this change. The new equipment is seismically mounted and evaluated.

3. No acceptance limits are increased, and no failure points are decreased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-005 Rev 0

In response to human factors concerns regarding MCR operator manual actions required to open/close the Unit 1 safety-related PSW turbine building isolation valves and RHR heat exchanger bypass valves, modify the control schemes for the valves to permit them to reach the open/close positions following manual operation of the open/close switches, without holding the switches in the open/close position until full travel is achieved. Replace the existing control switches and add latching relays to maintain single switch operation of the valves.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Although the control schemes for the valves are being modified to eliminate the need to hold the control switches in the open/close positions until valve travel is complete, the safety-related response of the valves to automatic positioning signals is unchanged. Seismic analysis shows no adverse affect on the panels in which the switches and relays are mounted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The safety-related function of the valves is unchanged.

3. The control scheme modification preserves the basic functions of the valves. The automatic function of the valves in DBA conditions is not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-066 Rev 0

Replace Amphenol plugs and GE terminal blocks and multipin connectors in drywell penetrations.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement components are either identical or equivalent to the original components, and meet or exceed original specification requirements. This modification does not alter the function or operation of the affected systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Replacing these components with either identical or equivalent components satisfies the original design bases and does not alter the function of the affected systems.

3. The replacement components meet or exceed the specification requirements of the original components. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-106 Rev 0 Install test switches that block the actuation signal to the ARI system's solenoid valves to allow system testing while at power. Replace the trip units and modify the logic for the RPT to ensure compliance with 10 CFR 50.62.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification satisfies the requirement for diversity between the RPS and the ARI system. Changing the reactor RPT logic from a one-out-of-two scheme to a two-out-of-two scheme on the receipt of a high reactor pressure or low reactor water level signal minimizes the potential for inadvertent actuation and provides the capability to perform system maintenance, testing, or calibration while at power. System operability and reliability are enhanced.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Interfaces with safety-related systems continue to utilize the appropriate isolation devices. The affected nonsafety-related trip system is electrically independent and physically separated from the safety-related RPS.

3. The setpoints chosen for the reactor RPT are the same as those for the ARI system and are within the trip settings of the applicable TS. Changing the logic from a one-out-of-two trip to a two-out-of-two trip requirement minimizes the possibility of inadvertent actuation and enhances the ability to maintain the system and does not affect the automatic function of the RPT system during accident conditions. Likewise, installation of the test switches does not affect the ability of the ARI system to perform its design function. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-114 Rev 0 Replace the control room indicators for diesel generator fuel oil tank level with new electronic digital/bargraph indicators which read out in gallons.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The diesel generator fuel oil level controls are completely independent of the affected level indicators and are not affected by this change. The new indicators are more accurate and easier to read than the old ones.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Failure of the indicator or the associated transmitter will not result in a failure or loss of other devices supplied from the same Class 1E 120 VAC panel. No new failure modes which could affect equipment important to safety are introduced by this change.

3. No safety limits or setpoints are affected, and no changes to the TS are required. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-128
Rev 0 Retrofill transformers 1R23-S003, 1R23-S004, and 1S11-S007 with Unison's TF-1 fluid to eliminate the environmental health hazard of PCBs. Hot transfer loads of safety-related 600V buses 1C and 1D to an alternate power source before transformers are isolated for retrofill.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will only be implemented with the reactor in the REFUEL mode or with no fuel in the reactor vessel. One 600V bus is required for these conditions. One bus will be unaffected by hot transfers or retrofills to provide power to equipment listed in TS section 3/4.10. The other 600V bus will be provided alternate power from transformer 1CD. The properties of the TF-1 fluid were reviewed and found to be similar to PCB fluids. The modified transformers will provide adequate, reliable power and will handle their current loads. During modifications, power will be available to keep radioactive effluent emissions within TS limits.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The safety-related transformers and buses are adequate to supply power for all current loads. No system operation or response is affected.

3. Even with no fuel in the vessel, radioactive effluent emissions are required to be within TS limits. The conditions required to maintain emissions within Units 1 and 2 TS limits will be met during hot transfers and retrofills; therefore, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered. The margin of safety as defined in the basis for any TS is not reduced.

89-132 Rev 0 Replace the existing MCR RHRSW flow indicators having nonlinear scales that do not comply with human factors guidelines with the new indicators that are electronic digital/bargraph units having the square root function contained in the indicator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new indicators are Class 1E qualified devices and are more accurate and easier to read than the original indicators. The new indicators utilize the same signal generated by the existing transmitters. No wiring changes are required at the transmitter. The seismic integrity of the control room panel is not adversely impacted by this modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The flow indicators are powered from Class 1E power sources. Voltage at the indicator terminals will meet the requirements of the added devices; the added electrical load will not impact operation of the existing devices. No new failure modes which can affect equipment important to safety are introduced by this change.

3. No safety limits or setpoints of safety equipment are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-174 Rev 0 Provide connections for removable instrumentation to monitor the flow rate and temperature of the PSW system supply to the HNP-1 RHR pump seal coolers, CRD pump room coolers, RHR and CS pump room coolers, RCIC and HPCI pump room coolers, and reactor recirculating pump MG set coolers. Provide flow connections for monitoring the drywell air coolers and MCR HVAC Division I units.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will meet the design, material, and construction specifications, standards, and regulations for the PSW system. The changes will not degrade the system's reliability or operability, nor delete or modify its protection features.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification adds passive components meeting the requirement of the existing piping system. Interfaces with any existing structure, system, or component important to safety are not affected

3. This modification will not affect the operation or test of the PSW system or any system that interfaces with the PSW system. The existing limiting conditions of operation, as described in the HNP-1 TS, will not be affected by this modification. During its implementation, the applicable limiting conditions of operation will be observed. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.

89-202 Rev 0 Attach reactor building room coolers T41-B002A and T41-B003B to the top of the platform upon which they are placed by welding pieces of tube steel to the cooler base and the top of the platform.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the seismic integrity of room coolers T41-B002A and T41 B003B (as the result of USI A-46). The function or operation of the coolers will not be affected by this enhancement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification will not affect the function or operation of the coolers. All equipment will function as designed prior to the implementation of this modification.

3. The modification to the coolers ensures they will function in a seismic event as originally designed. No failure points or acceptance limits of the safety equipment it controls are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-205 Rev 0 Remove the beam next to the stem of valve B31-F023A and replace it with two new beams in a slightly different location, allowing a 3-inch gap rather than the 1/2-inch gap which existed between valve B31-F023A and the platform beam.

1. The probability of occurrence or consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The function or operation of any valve or equipment is not be affected by this change. This modification upgrades seismic integrity (as the result of USI A-46) by preventing interaction between the drywell platform steel and valve B31-F023A.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All equipment will function as designed prior to the implementation of this modification.

3 The modification ensures valve B31-F023A will function in a seismic event as originally designed. No failure points or acceptance limits of the safety equipment it controls are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-206 Rev 0 Add a brace to control room panel H11-P691 to fully meet the requirements of the SMA methodology (EPRI NP-6041) or the SQUG GIP for resolution of USI A-46.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The function of panel H11-P691 is not affected by this enhancement. This modification upgrades the seismic integrity of panel H11-P691, as the result of USI A-46.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All equipment will function as designed prior to the implementation of this modification.

3. The modification ensures the control panel functions in a seismic event as originally designed. No failure points or acceptance limits of safety equipment it controls are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-218 Rev 0 Modify the cover and add a flexible seal over the 3-in. seismic gap on el 228 ft-0 in. on the refueling floor between the reactor buildings. Add an additional seal in the seismic gap around the transfer canal located between the reactor buildings.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification improves the air tightness of the existing seismic gap, and due to the flexibility of the seal, allows relative movement of the Units 1 and 2 structures during a seismic event. No safety-related equipment is adversely impacted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Flexibility of the seals allows relative movement of the reactor buildings and does not affect the seismic qualification of these Category I structures. The ability to draw down secondary containment is enhanced.

3. This modification enhances secondary containment integrity and drawdown capability. The TS are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-246 Rev 0 Utilize advanced-design fuel bundles (GE 9) in operating Cycle 13.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification does not involve any changes to the CRD system and is mechanically compatible with existing assemblies and fuel handling equipment. The new design employs identical channels and is similar in weight and mass distribution to existing fuel assemblies. The new design can withstand the same limiting mechanical forces and seismic loadings, and has acceptable thermal-hydraulic performance throughout the anticipated life. This modification represents a small change in bundle enrichment relative to known reload fuel and has acceptable neutronic performance throughout the anticipated life. Therefore, no reactivity control problems are introduced. Bundle and total core stability are improved.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification involves only small differences in the mechanical, thermal-hydraulic, and nuclear fuel design relative to the existing reload bundles.

3. The new bundle design is used in reloads to satisfy shutdown margin requirements and maintain the conservative MCPR limit of 1.07 mandated by the TS. The new spacer design improves thermal margin limits. Specific thermal limits for the new fuel are included in the COLR. The margin of safety as defined in the basis for any TS is not reduced.

89-247 Allow use of GE Duralife 230 control rod blades in future cycles.
Rev 0

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new blades are mechanically identical to the previous blades. The basic structure in the blade region (i.e., sheath, rod, handle, velocity limiter, rollers, and coupling mechanism) is the same, except for the optional sheath attachment method. The new full-fusion corner weld attachment meets all control rod structural requirements when subjected to worst-case handling, scram, and seismic loading conditions. The hot-reactivity rod worth of the new blades is comparable to that of the previous blades. Thermal limits are not affected by the new blades, since scram speed and reactivity are comparable to that of the previous blades. The cold reactivity worth of the new blades is slightly higher; however, the design basis cold shutdown reactivity margin is unaffected.

2. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new blades are mechanically equal to or better than the original blades. The increased thickness and slightly reduced weight do not increase the probability of a stuck rod during withdrawal or insertion. The slightly higher worth of the new blades is bounded by the GE generic CRDA analysis, applicable to HNP, in the event of an accident.

3. The safety design basis of the control rods relates to the assurance core subcriticality is always achievable and adequate scram reactivity is available to quickly terminate power excursions so thermal limits are not violated during postulated operational transients. Because the slightly higher cold rod worth of the new blades remains bounded by the generic analysis, the margin of safety as defined in the TS is unaffected.

89-249 Rev 0 Replace the check valves and associated piping, and provide testing capabilities for the diesel generator starting air system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new piping and valves are designed to the original piping specification requirements. The capability to leak test the check valves ensures the probability of equipment malfunction is not increased. System leakage testing requirements are not changed. The new installation does not change the original design intent of the system. The piping and support modifications ensure system integrity is maintained under worst-case seismic and operational conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new and existing piping and valve installations meet Seismic Category I requirements. Equipment important to safety functions as originally designed. Implementation of the modifications were performed in accordance with the applicable HNP-1 and/or HNP-2 TS.

3. The diesel generators serviced by the affected air lines function as originally designed. No HNP-1 or HNP-2 TS changes are required. System operation and function are not changed. The added capability to test the check valves increases reliability. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-252 Rev 0 Replace non-Appendix R fuses located outside the MCR with identical or equivalent fuses qualified for Class 1E applications, thus providing equal or better circuit/equipment protection.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement fuses are equivalent in electrical characteristics to the original fuses and are qualified for Class 1E application. This modification does not adversely affect the operation of any safety-related system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not adversely affect the function of any safety-related system.

3. The replacement fuses meet or exceed the requirements of the original design specification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-259 Rev 1 Raise the diesel generator air receiver tank low pressure alarm pressure switch actuation to 190 psig. Relocate the switch and gauge for the air receiver tank which will regulate between 240-250 psig.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The form, fit, and function of the pressure switches remain unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The diesel generator air receiver tank low pressure alarm switch performs no control function; the sole purpose of the switch is to provide annunciation. This switch is not required to operate following a seismic event; however, the switch is classified as safety related due to the installation of the switch on Seismic Class 1 piping. The structural supports to which the replacement switches are mounted are seismically adequate to support the switches. The form, fit and function of the pressure switches remain unchanged; no new failure modes are introduced.

3. The design basis value for the TS limit for the air receiver tank is 225 psig which maintains sufficient starting air to allow approximately five attempts to start the diesel generator. Tolerances, safety limits, and setpoints are unaffected by this change. No acceptance limits are increased or failure points decreased by the implementation of this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-261 Rev 0 Replace emergency diesel generator batteries 1A (1R42-S002A) and 1C (1R42-S002C), and associated battery racks with new, larger capacity batteries and battery racks. Replace cables from the fuse boxes to the battery terminals with the same size cables.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Replacement batteries, racks, and cables meet or exceed the requirements of the original design specification. The new larger capacity batteries improve the battery design margin. No safety-related components or systems are affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement batteries, racks and cables meet or exceed the requirements of the original design specification and do not adversely impact the operation of any safety-related system. The functional operation of the system is improved.

3. This modification enhances system operation by providing a larger capacity battery to carry the emergency load. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-263 Rev 0 Replace the diesel generator battery chargers with functionally and operationally equivalent units. Install a new nonsafety-related charger test receptacle that will be isolated from the on-line charger and switched between chargers by the spare contacts in the existing safety-related throwover switch.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement battery chargers are functionally and operationally equivalent units with enhanced alarm capabilities that meet all codes and standards for Class 1E service at Plant Hatch. Responses of plant personnel to evaluated accidents, ESF responses, and equipment malfunctions are unchanged. All equipment supports and anchorage are designed to Category I criteria.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement chargers are functionally and operationally equivalent units meeting all codes and standards for Class 1E service.

3. The equivalent replacement chargers do not change any TS safety limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-270 Rev 0 Replace GE EC-type trip devices in selected low voltage power circuit breakers to improve coordination and reliability of the 125/250 VDC system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement devices have improved functions and tripping characteristics as compared with existing trip devices and are consistent with design standards and practices of the 125/250 VDC switchgear system. Application of the new trip devices improves system reliability and does not alter the original design of the 125/250 VDC switchgear.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. EC trip devices are designed to operate in the subject circuit breakers without affecting the switchgear's proper function and performance. The new devices incorporate technological enhancements and meet the design requirements of the existing switchgear system.

3. This modification improves system coordination and does not affect the safety classification or safety margins of the switchgear or breakers. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-007 Rev 0 Modify a safety-related pipe support on the PSW system, to ensure all piping and supports satisfy USAS Code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification ensures PSW piping functions as designed. The modification ensures compliance with the USAS Code and FSAR. All components (pipe and supports) will withstand all design basis loads.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The PSW system continues to meet its design basis and functions in accordance with the accident analysis. The original design basis remains valid and all components withstand all static and dynamic loading combinations.

3. This modification does not impact the operability of the PSW system. No other safety systems are impacted. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-010 Rev 0 Modify the supports for the hanging light fixtures in the control and diesel generator buildings by using tiewire to alleviate Seismic Category II/I concerns for the seismic margins earthquake.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the supports for the lights in the control and diesel generator buildings. Adding the tiewires prevents the fixtures from dislodging or falling during a design basis seismic event; therefore, the light fixtures do not prevent any safety-related equipment from performing its intended function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a structural improvement. Adding tiewires will increase the structural capacity of the light fixture support systems. This improvement does not adversely affect the function of any safety-related equipment.

3. The light fixtures do not impact the TS. Limiting conditions of operation are not exceeded. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-011 Rev 0 Add new angle brackets and anchors to the base channels for transformer S11-S012 located in the diesel generator building.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the anchorage for transformer S11-S012, ensuring the seismic integrity of the transformer meets the required design criteria. The function of safety- related equipment will be affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Adding the anchors and brackets will increase the structural capacity of the anchorage system; thus, no new types of accidents are created.

3. The modification to transformer S11-S012 ensures the transformer will function during and after a seismic event as originally designed. No failure points or acceptance limits of any safety equipment are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-012 Rev 0 Improve the anchorage of MCCs R24-S009 and R24-S010 located in the river intake structure by welding the MCCs to an existing embedded channel to fully meet the requirements of the SMA methodology or the SQUG GIP for the resolution of USI A-46.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the seismic integrity of the safety-related MCCs. The upgrade of the anchorage does not change the function or operation of the MCCs or any other safety-related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Upgrading the anchorage does not change any operation or function of the MCCs or any equipment important to safety.

3. The TS are not affected by this change. No safety limits or limiting conditions for operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-015 Rev 0 Modify the anchorage by adding washers and new bolted angles, along with connecting plates, to panels H21-P201, P200, P202, P230, P231, P232, and P256 to meet the requirements of the SMA methodology (EPRI NP-6041) (USI A-46) or the SQUG GIP.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the seismic integrity of the panels.

2. This modification does not create an accident possibility. The panels continue to perform their intended function.

3. This modification is an enhancement to the existing configuration, thus ensuring the panels function during and after a seismic event as originally designed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-043 Rev 0 Modify the reactor recirculation flow control system by reducing the rate of change for manually increasing and decreasing pump speed from the manual/automatic station, removing the blind controller and error signal limiting network, and installing a speed rate limiter with a low signal selector at the output of the runback speed limiter.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification reduces the probability of the failure of the recirculation flow controls by removing some unnecessary components and makes the system easier to operate by slowing the rate of pump speed changes. The consequences of a failure of the flow controller are not affected by this change, since the system remains within the bounds assumed by the safety analysis. The seismic integrity of the MCR panels is not affected; the recirculation pump trip function is not impaired by this modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function of the reactor recirculation flow control system remains unchanged. The system operates in a more conservative manner. No other plant responses are directly affected.

3. No safety limits or setpoints of any safety equipment are affected. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-066 Rev 0 Install GE-SIL-480 modification to the HPCI turbine's hydraulic control system to reduce the severity of the effect of a turbine speed startup transient on the HPCI turbines.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Based on satisfactory operation of equipment during testing by GE and Terry Corporation, and the fact the system is operating satisfactorily at other BWR facilities, the probability of a HPCI equipment malfunction is not increased, rather an improvement in its operation will be realized.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The system modifications meet all the existing design and construction requirements of the original system.

3. The design and functional requirements of the system are unchanged. Operational requirements are improved. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-070 Rev 0 Repair the notches in two structural steel beams located in the intake structure.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The structural steel beams are being modified to satisfy design criteria. Repair of the beams is an enhancement. This modification does not affect the function or operation of the system supported by the steel beams.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function and operation of the system supported by the two structural beams are not affected by this modification.

3. The structural steel beams are in compliance with design criteria. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-086 Rev 0 Permanently remove the RRS pipe whip restraint on the "A" loop suction line just above the 127 ft elevation grating. The restraint interferes with the replacement of drywell cooling coils and is not required to be restored per GE.

1 The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. GE's evaluation of the piping stress showed the restraint to be in a "no break" area, and removal of the restraint would not adversely affect the accident analyses.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Removing the restraint does not affect the piping analysis.

3. The margin of safety is not affected, since the piping analysis indicated the restraint is not needed.

90-098 Rev 0 Replace safety-related orifice plates installed in the PSW piping upstream of the diesel generator heat exchangers due to insufficient thickness.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The structural adequacy of the piping system for increased loads from the new orifice plates was reviewed and found acceptable. The increased plate thickness improves the capability of the PSW system to perform its safety function. The bore sizes of the orifice plates remain unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Installing new orifice plates of sufficient thickness does not adversely impact the integrity of the PSW system nor affect system operation, thus preserving the original design intent of the system.

3. This modification meets the existing design basis of the PSW system and has no adverse effect on system operation. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-126 Rev 0 Replace RHRSW heat exchanger control valves with control components Series 100D drag valves which are better designed to resist cavitation.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement valves are equivalent to the original valves and meet the same specifications. This modification does not impact the function or operation of the affected area.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new valves meet the design requirements of the existing valves.

3. The replacement valves meet the same specification requirements of the existing valves. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-144 Rev 0 Replace the carbon-steel flanges on the PSW system strainer backwash pipe with stainless-steel flanges and an insulating flange kit (dielectric) between the carbon-steel strainer connections and the stainless-steel flanges.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Replacing the flanges eliminates dissimilar welds at the pipe end of the strainer connections, thus improving the reliability of the existing PSW pipe-to-strainer flange connection. This replacement does not affect the performance or operating characteristics of PSW system components.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. These flange replacements meet all the existing design and construction requirements of the PSW system. The strainer and the backwash piping system functions as designed.

3. The design, functional, and operational requirements of the PSW system, as well as the TS, are unaffected by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-147
Rev 0

Cut a notch in the bottom flange of beam B16 where the top of the actuator of AOV P41-F039B, located in the SE diagonal of Unit 1 reactor building, touches the beam to allow seismic movement. Weld a steel plate to the bottom of the beam, next to the notched section, to ensure the beam retains its original capacity.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This enhancement ensures the SE diagonal platform beam meets the requirements for Seismic Category I structures per HNP-1-FSAR Section 12.6.2.1 (as the result of USI A-46). The function or operation of valve P41-F039B is not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification removes the possibility of the beam interacting with the valve actuator during a seismic event.

3. The SE diagonal platform steel is modified to withstand a design basis seismic event; therefore, no failure points or acceptance limits of any safety equipment are affected. The margin of safety as defined in the basis for any TS is not reduced.

90-148
Rev 0

Replace corroded anchor bolts on the supports for PSW strainer differential pressure switches P41-N200A and B with new stainless-steel expansion anchors. Position the new bolts between the existing bolts which will be cut off.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the anchorage for the supports for switches P41-N200A and B (as the result of USI A-46). Seismic Category I requirements, and the function and operation of the switches are not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Upgrading the anchorage for the supports for switches P41-N200A and B does not create an accident possibility and does not affect the function of any equipment.

3. This enhancement ensures the switches will function during and after a seismic event as originally designed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-180 Rev 0 Remove RRS system loop select instrumentation to remove a radiological concern, as well as provide a connection for future decontamination activities.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The system design remains in compliance with the appropriate codes and standards. The existing pipe, cable, conduit, supports, and instruments provide containment isolation and pressure boundary integrity. The new configuration will meet this objective with fewer components.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are being introduced by this modification. System function and operation are unchanged.

3. This modification does not introduce failure criteria, decrease any failure parameters, or change any acceptance limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-019 Rev 0 Replace the oil drain system for the PSW pump/motors to provide a safer, cleaner method of oil sample collection through improved access to the components, oil flow control for sample collection, and properly designed valving and hanger configurations.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement design does not affect PSW operation or response, because the valves do not operate during pump operation. All components, as well as the system, were seismically evaluated to prevent impacting the Category I rating of the motors.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced.

3. The PSW system is not altered, since all added components ensure proper operation after a seismic event. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-038 Rev 0 Replace SDV level switch 1C11-LS-N660B with an identical FCI Model FR-72 level switch. Change the instrument setpoint signals to reflect the characteristic curve of the new level switch.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Changing the setpoint signal or device failure signal for the SDV level switch does not alter any system response or operation. The setpoint for the SDV level switch is unchanged.

2. This setpoint signal change does not impact any parameters which could cause an accident of a different type than previously evaluated in the FSAR.

3. The new setpoint signal has been selected such that there is sufficient margin to ensure the margin of safety as defined in the TS is unchanged. No failure points are decreased, nor are acceptance limits increased by this change.

91-048 Rev 0 Resize the RWCU valve 1G31-F004 operator from a Limitorque SMB-00 with a 15 ft-lb DC motor to a Limitorque SMB-0 with a 40 ft-lb DC motor. Replace the existing 7/C No. 9 AWG feeder cable (cable code C7-9T) with a 5/C No. 6 AWG cable (cable code C42). (The upgraded valve operator will not be available until the 1993 Unit 1 outage; however, the new cable will feed the existing operator until the new operator is installed.)

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Upgrading the cable supplying power to valve 1G31-F004 provides increased torque for the valve operator. Valve operation or safety limits are not affected. Performance of the valve is not degraded below the design basis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Upgrading the feeder cable increases the torque available to operate the valve. Valve operation is controlled by torque switches so the increased torque does not change the valve's operation or safety limits.

3. No failure points are decreased or acceptance limits increased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-054 Rev 0 — Replace the cables supplying power to HPCI system valves 1E41-F003 and 1E41-F006 with larger cables to decrease the voltage drop to the valve motor terminals.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The modification upgrades the cables feeding HPCI system valves 1E41-F003 and 1E41-F006, which increases the voltage at the valve motor terminals and improves valve operation. No change is being made in the function or operation of the HPCI system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification increases the voltage at the valve motor terminals, thereby increasing the torque delivered by the motor to the valve shaft. Upgrading the cables to the valves will have no effect on the operation of the HPCI system.

3. Upgrading the cables to the HPCI system valves increases the torque of the valves but does not affect any operating parameters of the HPCI system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-058 Rev 0 — Add additional anchorage to the rack for diesel generator battery R42-S002B to resist the seismic-induced shear forces.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the anchorage for diesel generator battery rack R42-S002B (as the result of USI A-46). The anchorage will be improved from its previous condition.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The modification increases the structural capacity of the anchorage for the battery rack. The operation of the batteries is not adversely affected.

3. This modification ensures the batteries function during and after a seismic event as originally designed. No failure points or acceptance limits are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-098 Rev 0 Install manually operated valves in portions of the reactor building PSW system to provide isolation capabilities during piping chemical decontamination.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The materials, construction standards, and seismic criteria used are commensurate with the required system safety functions. The valves will only be used during chemical cleaning of the system and will have no active functions during normal operation. Failures of these components are bounded by previous analyses.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new types of failure are created.

3. The TS operating limitations and margins of safety for the PSW system and systems it supports are not affected.

91-105 Rev 0 Install flanges in portions of the reactor building PSW piping to allow bypassing the room coolers during piping chemical decontamination.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The materials, construction standards, and seismic criteria used are commensurate with the required system safety functions. The new passive components are only required to maintain the pressure boundary. Failures of these components are bounded by previous analyses.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new types of failure are created.

3. The TS operating limitations and the characteristics of the PSW system are not adversely affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-124 Rev 0 Reset the diesel generator GE IJCV overcurrent relays to improve coordination with the downstream Westinghouse CO-5 relays, as well as with the maximum starting current.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Changing the relay tap settings increases the operational reliability of the 4160V emergency bus and its supplied safety-related loads. Thus, the probability of a malfunction is reduced. Overall operation of the overcurrent relays is unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Only relay settings are being changed.

3. Limits bounding the applicable margin of safety are not being changed.

91-130 Rev 0 Provide Class 1E alternate redundant Division I control power to MCR air-condensing unit 8C by routing new cable and providing a control relay to transfer Division II power to Division I upon loss of Division II control power.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Modifications to existing equipment do not affect seismic qualification. The control relay, its enclosure, and the new cable meet the existing design basis. Minimum separation distance between redundant divisions is maintained. The availability of the condensing unit is improved with the addition of redundant control power; the function and operation of the unit are not altered. The existing Division I Class 1E buses have adequate capacity to supply the additional control circuit loads.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new control power to the MCR air-condensing unit 8C meets all applicable design bases. The functional operation of the unit is not altered.

3. This modification improves the reliability and availability of the condensing unit to ensure ambient air temperature does not exceed the allowable temperature for equipment and instrumentation cooled by the system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-131 Rev 0

Add a Class 1E control power transformer to provide the control power from the power feeder for MCR condensing unit 1Z41-B008C. Replace feeder cables with larger size cables between load centers 1R23-S003 and 1R23-S004 to MCCs 1R24-S002 and 1R24-S003, respectively. Reset associated breakers in the load centers to provide required breaker coordination and allow operation of all the loads on MCCs 1R24-S002 and 1R24-S003 from 1R24-S029. Permanently disconnect MCR duct heater 1Z41-B010C and associated thermostat 1Z41-N601C from 1R24-S029.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All modifications will be performed in accordance with the original design requirements to ensure the systems and components remain available to perform their safety function. Resetting the breakers will ensure the systems and components remain available to perform their safety function. The MCR duct heater and thermostat are not required to support safety-related equipment and have no affect on any systems required to mitigate accident consequences.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The existing requirements for manually transferring the control power (as provided in DCR 91-130) and the load shedding for the MCCs will be eliminated. System design requirements are maintained which include Class 1E and seismic qualification requirements. Feeder cables are adequately sized to supply all loads.

3. Replacing the power feeder cables and resetting the load center breakers eliminates the need to manually transfer the control power and the load shedding requirements for the MCCs. Disconnecting the heater does not affect the ability of the MCRECS to maintain acceptable temperature limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-168 Rev 0 Replace the Velan 1-1/2-in. SLC system injection line PCIV 1C41-F007, with a new Rockwell valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Replacing the check valve meets the design, material, and construction codes and standards applicable to the SLC system and its function as a PCIV. This modification does not alter, degrade, or prevent actions assumed in previously analyzed accidents. The replacement valve and piping system changes were seismically evaluated and found acceptable for this application. This change does not alter the response or increase the impact of a malfunction of equipment important to safety.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced by this valve replacement. The function and operation of the SLC system are unchanged. No new system interfaces are established.

3. This valve replacement does not modify any failure points or acceptance limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-171 Rev 0 Add one pushbutton each to MCR panels 2H11-P654 and 1H11-P657 to provide a conventional means of manual action to reset the reactor building secondary containment exhaust dampers after an ESF signal has been reset.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The SBGT system (T46) and the reactor building secondary containment exhaust dampers are used to mitigate the consequences of an accident after initiation of an ESF signal. The dampers remain in their emergency position until reset by the new manual pushbuttons and, as such, the SBGT system performs its intended safety function until manually reset.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The dampers remain in the emergency position until manual action is taken to reset the damper logic. Failure of the dampers in the reset logic would arise from individual component failure which was considered in the design of the ventilation systems. The reset switches meet the necessary design requirements, such as separation criteria and seismic considerations.

3. No acceptance limits are increased, and no failure points are decreased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-177 Rev 0 Replace the existing HPCI turbine EGR hydraulic actuator with a Woodward hydraulic actuator qualified to 10 CFR 50.49 requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement Woodward actuator is equivalent to the existing actuator and meets or exceeds the design and qualification requirements of the existing actuator. This modification does not impact the function or operation of the affected system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement actuator is equivalent in design to the original actuator and does not alter system function.

3. The replacement actuator meets and/or exceeds the specifications of the original equipment. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-178 Rev 0 Replace a 600-120/208V, 30kVA transformer located in Class 1E MCC 1R24-S009 with a similar transformer during a refueling outage.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement transformer is the same type and fulfills the same function as the existing transformer.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement transformer is the same type and fulfills the safety functions in the same manner as the original transformer.

3. Because of transformer similarity, acceptance limits are not increased, and failure points are not decreased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

79-476 Rev 0 Install a PASS for online chemical radioisotopic analysis of the reactor coolant and containment atmosphere during accident conditions as required by NUREG-0578, Recommendation 2.1.8.a; NUREG-0737, Clarification Item II.B.3, and RG 1.97, Revision 2, Table 1, Type E variables.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The sample lines connected to the RPV and the primary containment are designed in accordance with Safety Guide 11, thus satisfying 10 CFR 50, Appendix A, GDC 56. Isolation valves capable f automatic operation maintain containment integrity during normal reactor operation and under accident conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The sample lines connected to the RPV and the primary containment meet the requirements of 10 CFR 50, Appendix A, GDC 56.

3. The valves satisfy GDC 56 and are maintained in accordance with existing PCIV requirements. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

81-174 Rev 0 Relocate the HPCI and RCIC turbine controls to el 130 ft in the control building to position the controls in a milder environment. Add a performance monitoring system to both the HPCI and RCIC systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Logic, setpoints, and modes of operation are unchanged. The installation of the performance monitoring system provides additional information to the operators. The change does not impact system operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Installing a performance monitoring system provides additional information to the operators and does not affect system operation. Relocating the controls does not result in any logic or setpoint changes.

3. Installing the new monitoring equipment and relocating the controls does not change operating logic or any other parameters of the HPCI or RCIC system. As a result, safety limits are unchanged, and the margin of safety as defined in the basis for any TS is not reduced.

84-138 Rev 0 Modify certain safety and nonsafety setpoints in the RPV, CRD, RHR, CS, HPCI, RWCU, RBCCW, and other systems to account for loop accuracy, drift, and calibration tolerances, according to the guidelines of RG 1.105.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Setpoints were selected by accounting for all uncertainties to ensure sufficient margin exists between the setpoint and the analytical and process safety limit. Each setpoint was selected to ensure normal process conditions do not result in inappropriate actuation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Setpoints were selected using the guidance of RG 1.105 and are in conformance with the FSAR. No modifications to the logic associated with the instruments will be made.

3. Setpoint calculations were reviewed to ensure previously established safety margins are not decreased. No TS changes are required.

84-233 Rev 0 Replace existing obsolete safety-related pressure switches 2P41-N301A and B with qualified substitutes.

1. The probability of occurrence or consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement pressure switches are qualified to the same level as the existing switches. The setpoint and function of the replacement switches are identical to those of the existing switches.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System operation is not affected. The output and process inputs to the replacement switches are not altered.

3. The replacement switches exhibit the same performance characteristics and will be subjected to the same surveillance characteristics as the existing switches. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

86-308 Rev 0 Modify safety-related pipe supports on the MSL and main steam relief valve discharge line piping to satisfy ASME Code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change assures the system meets the design bases and functions to mitigate the consequences of an accident by modifying the safety-related supports on the main steam relief valve discharge line piping. All piping and supports satisfy ASME Code requirements.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The system continues to meet its design basis, function in accordance with the accident analysis, and withstand all required loading combinations.

3. This modification assures the system functions within its design basis. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

87-003 Rev 0 Replace safety-related pressure transmitter 2E32-N051F of the MSIV leakage control system with an equivalent pressure switch.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement transmitter is fully qualified to 10 CFR 50.49 criteria. The output functions of the new switch and control loop remain identical.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new switch has characteristics (response time, range, working pressure) equal to or exceeding the existing switch. The new pressure transmitter and the entire control loop perform functions identical to the existing equipment.

3. Setpoint calculations confirm TS safety margins are not reduced.

87-078 Rev 0 Replace access doors to the pipe chase area with wire mesh doors to reduce pipe chase area high temperatures.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Removing the pipe chase area access doors exposes el 130 ft to the pipe chase environment. As a result, the ambient temperature will increase approximately 4°F. Also, the opening of the doors will increase the worst-case temperature and pressure high energy line break (HELB) profile for el 130. Removing the doors and replacing them with wire mesh doors was analyzed for FSAR design requirements; the scope of equipment affected by a steam line break in the main steam pipe chase is increased. All environmentally qualified equipment was evaluated.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The only modification required is to the MCCs on reactor building el 130 ft. Replacing the airtight pipe chase doors with wire mesh doors does not adversely affect the plant.

3. All environmentally qualified equipment in the 130 ft elevation was evaluated for worst-case temperature and pressure profile results from a MSLB in the pipe chase. The worst-case radiation dose does not change as a result of this modification. With modification to the MCCs in the reactor building (consistent with RG 1.106) to maintain their qualification, the margin of safety as defined in the TS is not reduced.

87-098 Rev 0 Modify safety-related solenoid valves 2E11-F074A, F074B, and 2E41-F053 with upgrade kits to extend required preventive maintenance on certain internals.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The upgrade kits were tested and qualified consistent with 10 CFR 50.49 guidelines. Preventive maintenance intervals, determined from test reports, ensure the solenoid valves are capable of performing their intended safety function under normal and accident conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The modified valves perform the identical functions of the existing valves. No logic or power supply modifications are required.

3. The modified valves perform the identical function of the existing valves. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-207 Rev 0 Provide additional reactor water level instrumentation to allow more concise measurement of higher levels under operating and abnormal conditions.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The added and modified instrumentation, which provides operator information, provides no active safety function. Conduit, tubing, supports, and instrumentation are designed to meet existing Seismic Category I and II/I requirements. This modification involves no interaction with safety-related equipment which performs an active safety function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new equipment does not perform a new function and meets previous design requirements. This modification involves no new interaction with safety-related equipment performing an active safety function.

3. This instrumentation is not included in the basis for any TS. No limits included in the TS are effected by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-231 Rev 0 Remove the RWM functions from the plant process computer and install the NUMAC RWM as a stand-alone system which performs rod sequence control and control rod scram time testing functions.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The NUMAC RWM provides rod pattern control consistent with nuclear design criteria for the process computer-based system. Using the system to perform scram time test and shutdown margin testing conforms to FSAR requirements. Equipment reliability is improved, because a more reliable device having self-diagnostic capabilities will replace an almost obsolete device.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The NUMAC RWM meets the design requirements of the existing equipment.

3. The margin of safety for the CRDA is defined in terms of the peak fuel enthalapy resulting from an excursion. This is controlled by the magnitude of the initiating reactivity insertion, which is restricted by the rod pattern controls imposed by the RWM. Because the rod patterns allowed by the new system are unchanged, the margin of safety is unaffected.

88-331 Rev 0 Improve the anchorage of safety-related transformer 2S11-S009, located in the diesel generator building, to assure FSAR design requirements are met by welding the transformer base channels to existing embedded channels in the concrete floor.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades essential 4160/600V transformer 2F1. The upgrade does not change the function or operation of the transformer or any other safety-related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not change the operation or function of the transformer or any equipment important to safety.

3. The design, function, and operation of the transformer are not affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-010 Rev 0 In response to human factors concerns regarding the MCR operator manual actions required to open/close the Unit 2 safety-related PSW and RHR valves, modify the control schemes for the valves to permit them to reach their open/close positions following manual operation of the open/close switches without holding the switches in the open/close position until full travel is achieved. Replace the existing control switches and add latching relays to maintain single switch operation of the valves.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Although the control schemes for the valves were modified to eliminate the need to hold the control switches in their open/close positions until valve travel is complete, the safety-related response of the valves to automatic positioning signals is unchanged. Seismic analysis shows no adverse affect on the panels in which the switches and relays were mounted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The safety-related function of these valves is unchanged.

3. The control scheme modification preserves the basic functions of the valves. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-011 Rev 0 Revise the layout of panel 2H11-P657 per the recommendations described in DCRDR Final Report for Detailed Control Room Design Review at Plant E. I. Hatch, dated 12/10/87 (reference Human Engineering Discrepancies 39, 78 and 433).

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Revision of the panel layout improves system/operator interfaces in accordance with NUREG 0700. The function and operation of the systems or components involved are not changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Relocated components on the 2H11-P657 panel maintain original seismic and separation requirements.

3. The margin of safety is maintained as the relocation of equipment is performed to the same seismic and separation requirements as the original installation.

89-012 Rev 0 Revise the layout of panel 2H11-P700 per the recommendations described in DCRDR final report for Detailed Control Room Design Review at Plant E. I Hatch, dated 12/10/87 (reference Human Engineering Discrepancy 39).

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Revision of the panel layout improves system/operator interfaces in accordance with NUREG 0700. The function and operation of the systems or components involved are not changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Relocated components on the 2H11-P700 panel maintain original seismic and separation requirements. The affected systems or interfaces to other systems that might create an accident or malfunction of equipment other than those previously identified are not changed.

3. The margin of safety is maintained as the relocation of equipment will be performed to the same seismic and separation requirements as the original installation.

89-013 Rev 0 Revise the layout of panel 2N62-P600 per the recommendations described in DCRDR Final Report for Detailed Control Room Design Review at Plant E. I. Hatch dated 12/10/87, (reference Human Engineering Discrepancies 39 and 749).

1. The probability or occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Revision of the panel layout improves system/operator interfaces in accordance with NUREG 0700. The function and operation of the systems or components involved are not changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Relocating components on the 2N62-P600 panel maintains original seismic and separation requirements. The affected systems or interfaces to other systems that might create an accident or malfunction of equipment other than those previously identified are not changed.

3. The margin of safety is maintained as the relocation of equipment will be performed to the same seismic and separation requirements as the original installation.

89-055 Rev 1 Remove and restore any equipment and structures, as required, to support the required 10-year maintenance activities on the two RHR motors and one CS motor in the southeast diagonal of the Unit 2 reactor building. Restoration is to original design or equivalent.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All changes, which include pad eyes, junction boxes, member splices, and minor conduit reroutes, are temporary, except for minor modifications required for interference restoration.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All equipment functions as designed prior to the implementation of this design change.

3. The design, function, and operational requirements of the affected motors and systems are maintained by this modification. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-067 Rev 0 Replace Amphenol plugs, GE terminal blocks, and GE multipin correctors in drywell penetrations.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement components are either identical or equivalent to the original components, and meet or exceed original specification requirements. This modification does not alter the function or operation of the affected systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Replacing these components with either identical or equivalent components satisfies the original design bases and does not alter the function of the affected systems.

3. The replacement components meet or exceed the specification requirements of the original components. The function and operation of the affected systems are not altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-107 Rev 0 Replace the GE reactor trip units with Rosemount trip units. Add a test switch to allow the final ARI initiation relays to be tested while the reactor is at power. To comply with ATWS rule 10 CFR 50.62, upgrade the ATWS/RPT logic to two-out-of-two.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The Rosemount trip units are identical to the GE units in form, fit, and function, and were procured to meet IEEE 323 and 344 Standards. The interfaces of the safety-related equipment and the nonsafety-related equipment utilize appropriate isolation devices. The Rosemount units provide a diverse alternate method of rod insertion, and the two-out-of-two logic provides a more reliable RPT signal from the ARI actuation circuit.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All new equipment is identical in form, fit, and function to the existing equipment. The operation of the ARI system and the ATWS/RPT function is not changed.

3. No change to the TS is required, because the ATWS/RPT trips are now an integral part of the ATTS. The surveillance intervals are consistent with the ATTS requirements. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-115 Rev 0 Replace the control room indicators for diesel generator fuel oil tank level with new electronic digital/bargraph indicators which read out in gallons.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The diesel generator fuel oil level controls are completely independent of the affected level indicators and are not affected by this change. The new indicators are more accurate and easier to read than the old ones.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Failure of the indicator or the associated transmitter will not result in a failure or loss of other devices supplied from the same Class 1E 120VAC panel. No new failure modes which could affect equipment important to safety are introduced by this change.

3. No safety limits or setpoints are affected, and no changes to the TS are required. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-125 Rev 0 Retrofill transformers 2R23-S003, 2R23-S004, and 2S11-S007 with Unison's TF-1 fluid to eliminate the environmental health hazards of PCBs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will only be implemented with the reactor in the REFUEL mode or with no fuel in the reactor vessel. One 600V bus is required for these conditions. One of the two 600V safety-related buses will be unaffected by hot transfers or retrofills to provide power to equipment listed in TS section 3/4.10. The other 600V bus will be provided alternate power from transformer 2CD. The properties of the TF-1 fluid are similar to PCB fluids. The modified transformers provide adequate, reliable power and are adequate for their current loads. During modifications, power will be available to keep radioactive effluent emissions within TS limits.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The safety-related transformers and buses are still be able to supply power to all current loads. No system operation or response is affected.

3. Even with no fuel in the vessel, radioactive effluent emissions are required to be within TS limits. The conditions required to maintain emissions within Units 1 and 2 TS limits will be met during hot transfers and retrofills; therefore, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-133 Rev 0 Replace the existing MCR RHRSW flow indicators which have non-linear scales that did not comply with human factors guidelines, with new indicators that are electronic digital/bargraph units with the square root function contained in the indicator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new indicators are Class 1E qualified devices and are more accurate and easier to read than the original indicators. The new indicators utilize the same signal generated by the existing transmitters. No wiring changes are required at the transmitter. The seismic integrity of the MCR panel is not adversely impacted by this modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new indicators require 120VAC power which was not required by the original ones. The flow indicators are powered from Class 1E power sources. The voltage at the indicator terminals will meet the requirements of the added devices; the added electrical load does not impact the operation of the existing devices. No new failure modes which can affect equipment important to safety are introduced by this change.

3. No safety limits or setpoints of any safety equipment are affected, and no changes to the basis for any TS are being made. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-175 Rev 1 Provide connections for removable instrumentation to monitor the flow rate and temperature of the PSW system supply to ECCS equipment in the reactor building. Relocate the PSW discharge restricting orifice 2P41-D315 from the residual heat removal RHR and CS room coolers. This allows verification of the effectiveness of the chemical cleaning of the PSW system piping, and provide trend analysis for future cleaning needs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This design change meets the design, material, and construction standards applicable to the PSW system. The accident response of any system or component important to safety is not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function of the PSW system and the systems it supports is not being changed. No new equipment or processes are being added.

3. The function and operation of the PSW system and systems it supports are not affected by this design change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-250 Rev 0 Replace the check valves and associated piping, and provide testing capabilities for the HNP-2 diesel generator starting air system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new piping and valves are designed to the original piping specification requirements. The capability to leak test the check valves ensures the probability of equipment malfunction is not increased. System leakage testing requirements are not changed. The new installation will not change the original design intent of the system. The piping and support modifications ensure system integrity is maintained under worst-case seismic and operational conditions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new and existing piping and valve installations meet Seismic Category I requirements. Equipment important to safety functions as originally designed. Implementation of the modifications is performed in accordance with the applicable TS.

3. The diesel generators being serviced by the affected air lines will function as originally designed. No TS changes are required. System operation and function are not changed. The added capability to test the check valves increases reliability. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-253 Rev 0 Replace non-Appendix R fuses located outside the MCR with identical or equivalent fuses qualified for Nuclear Class 1E application, thus providing equal or better circuit/equipment protection.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement fuses are equivalent in electrical characteristics to the original fuses and are qualified for Nuclear Class 1E applications. This modification does not adversely affect the operation of any safety-related system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not adversely affect the function of any safety-related system.

3. The replacement fuses meet or exceed the requirements of the original design specification and system operation and function is not altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-260 Rev 1 Raise the diesel generator air receiver tank low pressure alarm pressure switch actuation to 190 psig. Relocate the switch and gauge for the air receiver tank. The air receiver tank will regulate between 240-250 psig.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The form, fit and function of the pressure switches remain unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The diesel generator air receiver tank low pressure alarm pressure switch performs no control function; the purpose of the switch is to provide annunciation. This switch is not required to operate following a seismic event; however, the switch is classified as safety related due to the installation of the switch on Seismic Class I piping.

The structural supports to which the replacement switches are mounted are adequate to support the switches during a design basis seismic event. The form, fit, and function of the pressure switches remain unchanged; no new failure modes are introduced.

3. The design basis value for the TS limit for the air receiver tank is 225 psig which maintains sufficient starting air to allow approximately five attempts to start the diesel generator. Tolerances, safety limits, and setpoints are unaffected by this change. No acceptance limits are increased or failure points decreased by the implementation of this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-271 Rev 0 Replace General Electric EC-type trip devices in selected low voltage power circuit breakers to improve coordination and reliability of the 125/250VDC system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement EC trip devices have improved functions and tripping characteristics as compared with the old EC trip device and are consistent with design standards and practices of the 125/250VDC switchgear system. Application of the replacement EC trip devices improves system reliability and does not alter the original design of the 125/250VDC switchgear.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The EC trip device is designed to operate in the subject circuit breakers without affecting the switchgear's function and performance. Installation of the new EC trip device incorporates technological enhancements and meets the design requirements of the existing switchgear system.

3. This modification improves system coordination and does not affect the safety classification or safety margins of the switchgear or breakers. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-013 Rev 0 Modify the anchorage for switchgear 2R22-S006 to meet the requirements of the SMA methodology (EPRI NP-6041) or the SQUG GIP.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the switchgear and does not adversely affect the function or operation of any system or component.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not adversely affect the operation or function of any system or component.

3. No system design failure points or system limits are decreased. The TS are not affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-015 Rev 0 Modify the anchorage by adding washers and new bolted angles along with adding connecting plates to panels H21-P201, P200, P202, P230, P231, P232, and P256 to meet the requirements of the SMA methodology (EPRI NP-6041) or the SQUG GIP.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification upgrades the seismic integrity of the panels (as the result of USI A-46).

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not create an accident possibility. The panels capability to perform their intended function following a seismic event is enhanced.

3. This modification is an enhancement to the existing configuration, thus ensuring the panels will function during and after a seismic event as originally designed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-025 Rev 0 Replace GE time delay relays 2G31-R616C and D with more reliable Agastat relays and eliminate the unnecessary isolation signals to valves 2G31-F001 and 2G31-F004.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The function and operation of the RWCU system remain the same. The RWCU demineralizers are more available for use, and the frequent reset of the isolation valves is eliminated. The new relays meet the same qualifications as the original relays. No functional changes will occur. This modification does not impact the operation or function of the affected system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function remains the same. The replacement relays prevent unnecessary isolations of the RWCU system.

3. The replacement relays meet the same specifications as the original relays. No acceptance limits are increased and no failure points are decreased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-047 Rev 0 Modify the reactor recirculation flow control system by reducing the rate of change for increasing and decreasing pump speed manually from the manual/automatic station, removing the blind controller and error signal limiting network, and installing a speed rate limiter with a low signal selector at the output of the runback speed limiter.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification reduces the probability of the failure of the recirculation flow controls by removing some unnecessary components and makes the system easier to operate by slowing the rate of pump speed changes. The consequences of a failure of the flow controller are not affected by this change since the system will remain within the bounds assumed by the safety analysis. The seismic integrity of the MCR panels is not affected, and the recirculation pump trip function is not impaired by this modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function of the reactor recirculation flow control system remains unchanged. The system will operate in a more conservative manner. No other plant responses are directly affected.

3. No safety limits or setpoints of any safety equipment are affected. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-059 Rev 0 Disconnect pipe support 2B21-MSRV-H20 from the drywell structural steel to seismically separate it from the drywell shell.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This pipe support is being modified to satisfy design criteria. The piping system is not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification is being made to comply with design requirements.

3. This modification is being made to comply with design requirements. TS safety limits and limiting conditions for operation for the B21 system are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-103 Rev 0 Install new reload fuel assembly GE-11 lead use assemblies in the reactor to evaluate operational results, providing enhanced thermal limits, hot and cold reactivity margins, higher bundle enrichments, and higher discharge burnups.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Overall reactor performance is not degraded. These fuel bundles are fully compatible with existing storage and fuel handling equipment. No other equipment assumed to function during an anticipated transient or accident is involved. This fuel was designed to have the same end-of-life fission gas inventory requirements and meet the same mechanical and thermal-hydraulic acceptance criteria as existing fuel types.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification represents only minor changes to existing fuel types. No other plant systems or equipment are affected.

3. These fuel assemblies were analyzed and designed such that all acceptance limits or failure points meet or improve the existing requirements as defined in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-104 Rev 0 Install a new reload fuel assembly GE-9 in the reactor to evaluate operational results, providing enhanced thermal limits, hot and cold reactivity margins, higher bundle enrichments, and higher discharge burnups.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Overall reactor performance is not degraded. These fuel bundles are fully compatible with existing storage and fuel handling equipment. No other equipment assumed to function during an anticipated transient or accident is involved. This fuel was designed to have the same end-of-life fission gas inventory requirements and meet the same mechanical and thermal-hydraulic acceptance criteria as existing fuel types. This modification will not alter, degrade, or prevent actions assumed to occur in previously evaluated accidents.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification represents only minor changes to existing fuel types. No other plant systems or equipment are affected.

3. These fuel assemblies were analyzed and designed such that all acceptance limits or failure points meet or improve the existing requirements as defined in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-107 Rev 0 Remove the reactor recirculation pump motors, perform maintenance activities as required, and reinstall the motors. Replace the reactor recirculation pump internal assemblies with new assemblies that incorporate vendor-recommended improvements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All replacement parts conform to original design standards. The modifications to the pump internal assemblies are the result of vendor-recommended upgrades that decrease the probability of component failures and help maintain the integrity of the reactor coolant pressure boundary. Internal part replacements and vendor-recommended internal modifications will not affect the normal operation or characteristics of the pump after a pump trip. Failures of components result in the same type consequences as previously evaluated.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Failures of the motor or the pump internal assemblies result in pump malfunctions which were previously analyzed.

3. All components will be returned to service in accordance with the original design specifications. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-139 Rev 0 Remove the States terminal blocks from the ATTS and RWCU circuits to eliminate the potential leakage current source in the circuit. Reconnect the wires with EQ splices.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Removing the States terminal blocks will make the ATTS and the RWCU system more reliable. Removing these terminal blocks does not affect the operation of these systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Removing the terminal blocks does not affect the operating logic of either the ATTS or RWCU system.

3. No safety limits or setpoints are changed by the proposed activity. The validity of the existing setpoints is maintained by increasing the reliability of the existing circuit. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-145 Rev 0 Replace Ametek/Schutte and Koerting transmitter's flow element 2E32-NC06B, F, K, and P with heated-element flow transmitters manufactured by Fluid Components, Inc. (model LT81A-HT) because of numerous failures of the flow transmitters.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification replaces the flow elements and transmitters, and adds flow-restricting orifice couplings in the inboard MSIV-LCS. All standards, codes, and specifications required for the present system are satisfied by the replacement system. The function and operation of the system remain the same.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System logic and operation are unchanged. All new equipment will be seismically evaluated and mounted.

3. No setpoints, safety limits, plant responses, or safety equipment are impacted by this modification. Therefore, the margin of sarety as defined in the basis for any TS is not reduced.

90-149 Rev 0 Connect relay panels 2H21-P201 and 2H21-P231, located side-by-side in the diesel generator building, by bolting a steel plate between the two panels to eliminate the potential for the panels to impact together during a seismic event and cause contact chatter in the relays housed in the panels.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification, which results from USI A-46, upgrades the seismic integrity of diesel generator relay panels 2H21-P201 and 2H21-P231.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Neither the function of the diesel generator relay panels nor the function of any other safety-related equipment is affected by this change.

3. This modification ensures no interference in the operation of diesel generator relays in panels 2H21-P201 and 2H21-P231 will occur during a seismic event. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-185 Rev 2 Provide chemical cleaning ports (3-in. diameter flanged inlet connections) for the Unit 2 PSW system inside the reactor building in both Divisions I and II PSW supply lines to RHR and CS jockey pumps, RHR pumps, RHR and CS pump room coolers, the RCIC pump room coolers, the HPCI pump room coolers, and the CRD pump room coolers. Modify an existing 2-in. drain connection in the discharge piping downstream of LPCI inverter room coolers 2Z41-B020A and B to allow its use as a threaded chemical cleaning connection. Remove check valves (and internals) identified in Significant Operating Event Report 86-03, dated 11/21/88, located in the areas affected by the addition of the cleaning ports.

1. The probility of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This design change meets the design, material, and construction codes and standards applicable to the PSW system. No other systems or components are affected. It does not affect the accident response of any system or component important to safety or any fission product barriers.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new equipment or processes are added by this design change. The function and operation of the PSW system and the systems it supports are not changed. Adding chemical cleaning ports and removing identified check valves or their internals will not create any new modes of failure of equipment important to safety. No functional, operational, or testing changes are made to any system.

3. No margins of safety as defined in the basis for the Technical Specification are affected.

90-226 Rev 0 Modify the PSW system piping to allow bypassing the ECCS room coolers and LPCI inverter room coolers during chemical cleaning by adding flanges in the PSW supply and return piping for the above-referenced equipment to allow removal of spool pieces and installation of temporary jumpers during this cleaning process.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Adding flanges and enlarging test connections in the PSW supply and return piping to the ECCS room coolers and LPCI inverter room coolers meet the design, material, and construction codes and standards applicable to the PSW system. This design change does not affect the accident response of any system or component important to safety.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new equipment or processes are being added. The function and operation of the PSW system and systems it supports are not being changed.

3. No system will be operated outside the boundaries specified in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-023 Rev 0 Relocate CST water level switches 2E41-N002 and 2E41-N003 to a higher point to ensure the required minimum water volume is available to the HPCI system as required by the TS.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change relocates existing plant instrumentation. The CST level setting does not represent a new accident condition. The instruments are being raised to ensure the CST water volume available to the HPCI system meets TS requirements.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function and operation of the HPCI system remain unchanged. Changing the CST level instrument setpoints will transfer the HPCI pump suction source to the suppression pool intended by the TS.

3. No new components are being added. Changing the instrument setpoints ensures operation is in compliance with TS requirements. No system failure points or acceptance limits are being altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-036 Rev 0 Change the post-LOCA hydrogen recombiner inlet temperature switch setpoint to prevent a potential for the inadvertent trip of the recombiners due to instrument uncertainty.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This setpoint change ensures the hydrogen recombiner does not exceed the design condition and recombiner operation is not adversely affected. Recombiner reliability and availability will be improved by ensuring inadvertent trip of the recombiners due to instrument uncertainty does not occur.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new setpoint recognizes the limitation of the instruments versus the required system operating range. With the revised setpoint, the hydrogen recombiners continue to operate in accordance with the accident analysis.

3. The new setpoint does not affect the capability of the hydrogen recombiners to perform their safety function and ensures the recombiners are protected from exceeding design limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-056 Rev 0 Replace SDV level switch 2C11-LS-N660B with an identical FCI Model FR-72 level switch. Change the instrument setpoint signals because the characteristic curve of the new level switch is different.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Changing the setpoint signal or device failure signal for the SDV level switch does not alter any system response or operation. The setpoint for the SDV level switch is unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This setpoint signal change will have no impact on any parameters which could cause an accident of a different type than previously evaluated in the FSAR.

3. The new setpoint signal and device failure signal were selected such that there is sufficient margin to ensure the margin of safety as defined in the TS is unchanged. No failure points are decreased nor acceptance limits increased by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-072 Rev 0 Repair and restore crack indications found in various welds in the nuclear boiler system piping.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The acceptable weld overlay repair method to inhibit crack initiation and reduce further crack growth is performed in accordance with all applicable regulatory standards with the completed weld overlay being equal to or better than the original weld design.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The weld overlays improve the existing weld integrity while maintaining the original design intent. Current accident analyses are valid. A weld overlay failure will have the same impact as an original weld failure.

3. The weld overlays do not affect the allowable limits or failure points, and do not introduce or change any safety requirements of any component or system. The margin of safety defined in the basis for any TS is not affected.

91-077 Rev 0 Replace the Unit 2 "B" RHR motor with an equivalent motor from pooled inventory management.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement motor is equivalent to the existing motor and will perform the same function. The probability and consequences of a motor-related failure remain unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement motor is equivalent to the existing motor and will operate in the same manner. Nothing that could allow the RHR pump to fail in an unevaluated manner will be added or changed.

3. The replacement motor is equivalent to the existing motor and meets the original design basis of the RHR system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-080 Rev 0 Replace the existing dual coil solenoid valves on the air-assisted testable feedwater check valves with a single coil AC solenoid valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Because of the fail-safe manner in which the valves operate and the ability of the check valves to close against reverse flow with or without the solenoid valve, the dual coil configuration is unnecessary. This modification does not impact the function or operation of the affected system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The single coil AC solenoid valves and their associated check valves will continue to function the same as the old solenoid valves.

3. The replacement valves meet the same operational specifications as the original valves. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-083 Rev 0 Modify the internal control wiring for RHR outboard injection valve 2E11-F017B in MCC 2B frame 3A, 2E24-S012B so the closing cycle is controlled by a torque switch similar to 2E11-F017A.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The function of the valve is unchanged; only the torque switch that controls valve closing cycle is affected by this modification. FSAR section 7.3.1.2.4.5 assumes the valve is torqued closed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function of the valve is unchanged; the only change is that the valve will be stopped in the closing direction by a torque switch rather than a limit switch, as addressed in FSAR section 7.3.1.2.4.5.

3. The control or operation of valve 2E11-F017B in a mode of RHR is unchanged. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-091 Rev 0 Modify the reactor recirculation piping support system to strengthen the piping support components.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This support modification will improve the piping suspension system consistent with original design requirements. The modification will be inspected in accordance with the applicable code.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Normal and transient system operations will not be affected by this change.

3. All operational and design requirements will remain unchanged. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-125 Rev 0 Reset the diesel generator GE IJCV overcurrent relays to better coordinate with the downstream Westinghouse CO-5 relays, as well as with the maximum starting current.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Changing the relay tap settings increases operational reliability of the 4160V emergency bus and its supplied safety-related loads. Overall operation of the overcurrent relays is unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Only relay settings are being changed. No new accident mechanisms or equipment failure modes are being introduced.

3. The relay settings being changed are not part of the TS. Limits bounding the applicable margin of safety are not changed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

80-241 Rev 2 Replace flow control valves N11-F037A and B with pressure control valves to assure design steam pressure is available to the third-stage SJAEs and provide performance monitoring instrumentation.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification does not affect the function of the SJAEs; performance is enhanced. No safety-related equipment required to operate in an analyzed accident in the FSAR is affected by this modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not affect the functional integrity or response of any equipment important to safety. The installation and operation of this equipment do not alter the function of the affected system.

3. No design limits are affected by this modification. No margins of safety as defined in the TS are changed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

80-440 Rev 0 Install a main steam bypass valve using an orificed bypass around the steam supply valve to the RCIC turbine.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All components used in the RCIC bypass start system meet the original design requirements, and are qualified and capable of individual functional testing during normal plant operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The RCIC bypass start modification is designed to reduce the severity of the turbine start transient, thereby resulting in increased system reliability. The modification satisfies the design basis for the system and does not adversely affect system operation.

3. System reliability and availability are improved. The capability of the RCIC system is not adversely affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

84-180
Rev 0

Replace generator and transformer temperature recorder 1N41-R900 (GE Model HG) in panel 1H11-P650 with a L&N Model Speedomax 250 recorder.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Generator and transformer temperature recorder 1N41-R900 is not safety related and performs no safety function. Replacement recorder L&N Model 250 is smaller and lighter than the GE Model HG and will perform the same function as the old recorder. The seismic integrity of panel 1H11-P650 will not be adversely impacted by the installation of a L&N Model 250 recorder with adapter plate.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not degrade the performance of the 1N41 system below the original design basis. The replacement recorder will have the same design functions and interfaces with other systems as originally designed.

3. No failure points are decreased, and no acceptance limits are increased. This change does not affect the margin of safety as defined in the basis for any TS.

84-316
Rev 0

Remove a pressure switch, differential pressure switches, and associated tubing, wiring, and conduits from the drywell-to-torus differential pressure system. Replace three-position control switches with two-position control switches, and spare relays associated with the system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Implementation of this design change does not introduce any new interface nor adversely impact any system required to mitigate an accident. The safety function and operation of the 1T48 system are not impacted by this design change. The replacement switch configurations, locations, mountings, and weights are similar to the existing switches. Sparing the relays in the panel constitutes a wiring change only. Therefore, the seismic qualification of the panel in which the relays are mounted is not impacted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced by this design modification. The replacement components meet the existing design basis and will not adversely affect the operation of the system.

3. The affected portion of the drywell-to-torus differential pressure system is nonsafety related. Removing the pressure switches and associated hardware, and replacing the control switches will not reduce the margin of safety as defined in the TS.

85-048 Rev 0

Replace the existing CRD temperature monitoring system, consisting of the Leads & Northrup Type W recorder, the switching unit, and the input bank assemblies, with an improved system, consisting of an Acurex Autograph 800 and a rack-mount Netpac unit to improve the scan rate and print speed to monitor and record CRD temperatures.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The modification which involves the replacement of a nonsafety-related temperature recorder in a nonsafety-related panel does not impact any safety-related systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement system satisfies the original design requirements. Failure of the nonsafety-related recorder does not impact any safety-related equipment. This modification does not change system function or operation.

3. The temperature recorder and the scanner for the measurement of the CRD hydraulic drive water temperatures are not addressed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

85-070 Rev 0

Install and energize the data acquisition system cabinet, multimedia access center (MMAC-5), terminal servers (DSRVB), fiber-optic transceivers (FOT-T), Decrouter 2000 (DEMSA-DA), and thinwire transceivers in the computer room under the new process computer system. Install and terminate power, control, fiber-optic and signal cables between various equipment, thereby allowing energization of the equipment.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The modification consists of installation of nonsafety-related equipment and does not interfere with any permanent plant system. The new equipment performs no safety-related function and is installed so no adverse interaction with the existing safety-related equipment can occur.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The process computer system has no safety design basis and provides no safety-related function. This modification requires attachment to Seismic Category I structures; however, this design does not adversely affect the integrity of the structures.

3. The new equipment will not become an operative part of the process computer system until subsequent design changes are implemented. Thus, the TS are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

86-355
Rev 0

Replace the three existing reciprocating service air compressors with screw-type compressors. These compressors are not safety related. Modify the electrical supplies to the new compressors and change the compressors' cooling systems from the PSW to a CCWS. None of these changes adversely affect any safety-related system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification increases the reliability of the service air compressors and does not change the function or operation of the service air system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Modifying the electrical supplies and adding the CCWS does not introduce the possibility of an accident or equipment malfunction of a different type than those already evaluated in the FSAR.

3. Changing the air compressors, modifying the electrical supplies, and the adding the CCWS does not affect any parameter discussed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-072
Rev 1

Relocate annunciator windows on panels 1H11-P601, 1H11-P602, 1H11-P603, 1H11-P654, and 1H11-P657 located in the MCR in keeping with human factors criteria. (Associated circuit relocations and terminations are in nonsafety-related logic cabinets 1H11-P630 and 1H21-P237 located in the control building.) Add a new 36-window annunciator box. Add a new bay and an associated 5-ft cable tray to logic cabinet 1H11-P630.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The operation of the systems associated with these annunciators is not affected. By providing a more orderly arrangement of windows, the operator can more easily respond to annunciator alarms. The annunciator window relocation will improve the operator's ability to respond.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Relocating the annunciator windows and adding an annunciator box does not reduce the equivalency of the annunciator system. No changes to the function, logic, and operation of the equipment are made.

3. This change enhances operator interface and will improve operator response time. The margin of safety per the TS is not reduced by this design change.

88-081
Rev 0

Rearrange certain annunciator windows on offgas control room panel 1N62-P600 by moving the window tiles from one location to another in keeping with human factors criteria. Make appropriate wiring connections in annunciator remote logic cabinet 2H21-P237.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The location of the annunciator windows on panel 2N62-P600 is not a parameter of the accident analysis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Rearranging the annunciator windows does not introduce the possibility of an accident or equipment malfunction of a different type than those already evaluated in the FSAR.

3. The relocation of the annunciator windows does not affect any parameter discussed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-091 Rev 0 Rearrange annunciator windows in control panel 1H11-P650 to meet the requirements of Detailed Control Room Design Review Final Report, November 1987.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The change involves the regrouping of annunciators and does not alter the existing design, logic, or operation of these annunciators or associated equipment. The rearrangement results in functional grouping and similarity between units, and allows for easier operator response to annunciator alarms.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. There is no change in the existing design, logic, or operation of the annunciators or any associated equipment.

3. No setpoint, limit, response, or operation of any safety-related system is affected. No TS changes are required. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-205 Rev 0 Modify the HNP-1 reactor building overhead crane by installing a a new caliper brake assembly, a double-flange bearing retainer assembly, an overspeed limit switch assembly, and a brake failure limit switch, and modify the existing trolley assembly.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The new caliper brake assembly will provide an improved braking system, and the double-flange bearing retainer assembly will enhance the performance of the crane. The overspeed limit switch assembly has a more precise speed-sensing capability and is less temperature sensitive than the existing switch. The brake failure limit switch is better suited for the new caliper brake assembly and will prevent the crane from receiving erroneous signals which may cause unnecessary tripping. The modified trolley assembly has no adverse impact on the crane's structural integrity.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new and modified components enhance the operation of the crane and satisfy design requirements. No new modes of failure are introduced.

3. The new caliper brake assembly was sized by the crane manufacturer (Harnischfeger) to assume all the load responsibilities of the existing brake, while preserving the crane's single-failure proof braking system. The new bearing retainer assembly, overspeed limit switch, and brake failure limit switch provide improved function and control during crane operation. The modified trolley assembly has no adverse impact on crane design. The TS are not affected by the modifications to the crane. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-287 Rev 0 Delete/eliminate the density compensation signal in the feedwater control system by removing the pressure signal taken from the main steam line flow restrictor, as well as the proportional amplifier/summer logic arrangement, to remove components with high failure rates and improve system availability and reliability. Install a square root converter to replace the logic arrangement.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The feedwater control system will continue to perform all functions the system was designed to perform. Elimination of the high failure-rate density compensation components will improve system availability and reliability.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The function of the feedwater control system remains the same. This modification will not degrade any feedwater control system equipment. The system would not be prevented from functioning as stated in the FSAR, and no unanalyzed modes of failure will be introduced.

3. The function of the feedwater control system is not changed and does not affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

88-291 Rev 0 Replace the main condenser tubes and tubesheets with titanium materials. Coat the waterboxes. Change the waterbox grating, ladder rungs and drain screen material to stainless-steel. Modify the condenser restraint due to the lighter titanium material.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All modifications are to nonsafety-related systems. Removing a substantial copper source will help fuel life. Loss of copper in other safety-related systems does not introduce or alter accident scenarios previously evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification will increase the reliability of all impacted systems and does not affect system operation.

3. No operational parameters as defined in the TS are being altered or introduced by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-043 Rev 0 Replace fifth-stage feedwater heaters 5A and 5B because of tube erosion in the subcooled region.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All design, material, and construction standards applicable to the system are met. The heater function and operation remain unchanged; however, the new heaters will be more reliable. No effect on any equipment important-to-safety is postulated due to this design change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Heater operation and interaction with other equipment remain the same.

3. The fifth-stage feedwater heaters are not discussed in the basis for any TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-082 Rev 0 Replace existing INMAC linear offgas pretreatment radiation monitor D11-K602 with a NUMAC logarithmic radiation monitor to provide a backup to existing radiation monitor D11-K601.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The radiation monitor alarms in the event of an abnormal radiation level. It does not perform any operational function to either a safety-related or nonsafety-related system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The radiation monitor serves only as a monitor of radiation levels in the offgas system and has no operational effect.

3. The new radiation monitor will serve as a backup to D11-K601, making the system more reliable. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-108 Rev 0 Install new cameras and modify existing cameras for the CCTV camera system to improve the security coverage.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This system is nonsafety related and nonseismic, and has no impact on components or the operation of any safety-related system. Raceways installed on Seismic Category I structures are supported seismically to preclude Category II/I concerns.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This nonsafety-related modification has no impact on the function or operation of any safety-related system.

3. The security system is not addressed in the TS. No safety-related system or component is affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-117 Rev 0 Add a thermostat in process computer room HVAC relay panel 1H21-P301 to provide indication in the MCR of process computer room high temperature, as well as computer room air-conditioner low flow. Change the MCR annunciator window to read COMP ROOM A/C SYSTEM TROUBLE.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The process computer room air-conditioning system is not safety related, and the computer room contains no safety- related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The FSAR air-conditioning system description for the computer will still be accurate.

3. The computer room air-conditioning system is not addressed in the TS. This modification does not affect any TS safety limits or setpoints. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-126 Rev 0 Retrofill cooling tower transformers 1R23-S005 through 1R23-S010 to eliminate the environmental health hazard of PCBs. Deenergize the buses and isolate during retrofill with Unison's TF-1 fluid.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will only be made with the unit shut down and will not affect any system required to maintain plant shutdown. The properties of TF-1 fluid have been reviewed and found to be similar to PCB fluids. The modified cooling tower buses will provide adequate, reliable power and will handle the current loads. No system operation involved in any of the FSAR accident scenarios is adversely affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The equipment involved in this change was evaluated for any malfunctions caused by loss of power to subsequent components. Since all subsequent components are not safety related, there are no new possibilities of failure due to loss of power. The modified transformers will still handle their current loads, and no system operation, response, or reliability is affected.

3. Since the transformers affected by this change are not safety related and no system operation or response is affected, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-127 Rev 0 Retrofill station auxiliary transformers 1R23-S001, 1R23-S002, 1R23-S011, 1R23-S012, 1S11-S006, 1R23-S014 normal/alternate; 1R23-S015 normal/alternate; and 1R23-S021 to eliminate the environmental health hazard of PCBs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will only be made with a suitable alternate power source supplying affected loads. The properties of TF-1 fluid were reviewed and found to be similar to PCB fluids. The modified cooling tower buses will provide adequate, reliable power and will handle their current loads. No system operation involved in any of the FSAR accident scenarios is adversely affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All equipment involved in this change was evaluated for any malfunctions caused by loss of power to subsequent components. There are no new possibilities of failure due to that consideration. The modified nonsafety-related transformers will still handle their current loads.

3. Since the transformers affected by this change are not safety related and no system operation or response is affected, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-129 Rev 0

Add one alarm each on MCR panel H11-P650, modify the standby condensate booster pumps auto-start logic, and add local indication of pressure switch failure for reactor feed pumps low suction pressure switches and two-out-of-three pressure switch logic. Implement the two-out-of-three logic using new pressure switches 1N21-N122 and -N123, and existing pressure switch 1N21-N055. Stagger the trips of the reactor feed pumps and condensate booster pumps on low suction pressure by increasing the time delay in the control logic. This modification also provides two-out-of-two pressure switch logic for condensate booster pumps low suction pressure trip and an auto-start of standby condensate booster pumps on low suction pressure alarm and enhances the reliability of the condensate booster pumps system. This will reduce the number of low water level scrams due to feedwater pump trips during plant transients.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification will reduce the probability of a low reactor level scram by decreasing the probability of feedwater pumps trips and improving the performance of the feedwater system. The condensate and feedwater system is not required to mitigate results or consequences of any accident in the FSAR. No other safety system is adversely affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The condensate and feedwater system performance is expected to improve by this modification; no new or different type of accidents will be introduced by this change. The feedwater system modification will not alter or adversely affect any safety-related equipment or any equipment required to support the operation of safety-related equipment.

3. The condensate and feedwater system is not addressed in the TS. These modifications reduce the probability of challenging the RPS due to a low RPV water level initiated by feed pump trip. No failure points or acceptance limits of any equipment are altered by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-134 Rev 0

Replace the lamp cabinet assembly on the CAB annunciator to the text and windows consistent with the other annunciators. The physical dimensions and mounting methods remain unchanged.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All functions of the CAB annunciator are retained, only the physical sizes of the windows are changed. A seismic evaluation determined that no seismic impact results from this modification. No additional functions or operational requirements are added by this modification. Operator interfacing is improved by the standardization of the annunciator appearance and enhanced readability of larger windows. The CAB annunciator continues to provide a status indication of vents and airlock positions equivalent to that provided by the original annunciator windows. The new lamp cabinet is of the same design as the original and has no new failure modes.

2. The possibility of an accident or malfunction of a different type than evaluated previously in the FSAR is not created. Replacing the lamp cabinet does not create any additional failure modes because of the equality between its design, functions, and features and those of the original device.

3. The modification does not deviate from the requirements of the TS or ETS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-139 Rev 0

Parallel the cable from the power supply to the bulkhead connectors located in the annunciator light boxes for offgas console 1N62-P600 and control room consoles 1H11-P650, 1H11-P651, 1H11-P652, 1H11-P653, 1H11-P654, and 1H11-P657 to increase the light intensity and provide better illumination to the operator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The cables will parallel existing power supply cables only. All logic and circuit networks of the annunciating systems will remain unchanged. Improved brightness will provide better illumination of the annunciators to the operators.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Paralleling the power cables to provide better illumination will not alter any logic or circuit network.

3. The illumination of the annunciation lighting systems will be improved. The TS are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-177 Rev 0 Replace the existing Sygnetron Security System with a new SAIC Security System, which includes the security computer, card readers, and associated hardware, to enhance plant access control.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This system is nonsafety related and has no impact on the components or operation of any safety-related system. Raceways installed on Seismic Category I structures are supported seismically to preclude Category II/I concerns.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This nonsafety-related modification has no impact on the function or operation of any safety-related system.

3. The security system is not addressed in the TS. No safety-related system or component is affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-191 Rev 0 Minimize the differences between control room panels 1H11-P609, 1H11-P611, 2H11-P609, and 2H11-P611 by rearranging two indicating lights on panel 2H11-P609 and two indicating lights on 1H11-P611.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. These indicating lights do not perform any safety function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. These indicating lights serve only as a display and do not have any operational function.

3. Since these indicating lights serve only as a source of information, they do not have any setpoints or safety limits. The rearrangement of these lights will not affect TS limits. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-219 Rev 0

Install a level indicator in the SFP in order to visually determine with accuracy, the level of the SFP above the top of the active fuel.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Installation of the level indicator adds redundancy to the methods for determining SFP level, thereby decreasing the consequences of any malfunctions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Installing the indicator does not introduce the possibility of an accident or failure mode different from previously evaluated, since an accident involving the indicator dropping or falling is of less consequence than the dropping of a fuel bundle.

3. No system design failure points, safety limits, or acceptance limits are being changed. Adding the level indicator will minimize the potential of conducting refueling operations outside the analyzed bounds of the basis for SFP water level. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

89-248 Rev 0

Increase illumination levels for the outdoor lighting system by eliminating shadows and brightening darker areas. Add or replace high-mast lighting units, add wall-mounted luminaires and shoe-box-type luminaires, and relamp and replace ballasts for some existing units.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The outdoor lighting system is not a safety-related system. The equipment being added or changed by this modification is designed to withstand design basis wind and seismic loading without falling.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The modification of outdoor lighting will not change the system operation, nor will any safety-related system operation or response be affected.

3. The outdoor lighting system changes will not affect any design limits which define a margin of safety in the basis for any TS.

90-008 Rev 0 Install a microwave intrusion detection system. Delete a portion of the existing E-Field system to expand the existing microwave system to provide detection of unauthorized entry.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This system is nonsafety related and nonseismic, and has no impact on any component or operation of any safety-related system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This nonsafety-related modification does not interface with or alter the function of any safety-related system.

3. The security system is not addressed in the TS. No safety-related system or component is affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-029 Rev 0 Install ion chromatographs to monitor the zinc content in the primary reactor coolant and reactor feedwater to assure the presence of trace quantities of soluble zinc (Zn++) to suppress the buildup of Cobalt(60) on the reactor recirculation system piping (in compliance with EPRI recommendations to reduce radiation exposure rates).

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. No system operation, system integrity, or safety limits are affected by the addition of the ion chromatographs. The function and operation of all other systems remain the same. No equipment important to safety will be affected by the installation of the ion chromatographs.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new accidents are postulated due to this modification because the function and operation of all other systems will remain the same. This change adds connections to the existing sample system to supply the ion chromatographs. Failure modes of equipment important to safety are not affected by the addition of the ion chromatographs of the sample system connections.

3. No safety requirements are introduced or changed. Adding the ion chromatographs does not affect the allowable limits or failure points of any component or system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-033 Rev 0 Install a passive GE zinc injection system to inhibit the corrosion of stainless steel, thereby reducing the buildup of Co-60 on the RCPB piping surfaces.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The condensate and feedwater system function, operation, and safety limits are not affected by the addition of a passive GE zinc injection system. No important-to-safety equipment is affected by the installation and operation of a passive GE zinc injection system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The condensate and feedwater system function and operation remain the same. The failure modes of important-to-safety equipment are not affected by adding a passive GE zinc injection passive system.

3. No safety requirements are introduced or changed due to this design change. Zinc does not influence any of the reactor operating characteristics or operating variables. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-067 Rev 0 Upgrade the existing Unit 1 demineralized water supply lines to the diesel generator jacket water cooling system, and associated support, from Seismic Category II to Seismic Category I to eliminate the potential for pipe cracks to impact the diesel generator air filter.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The design change does not adversely affect operation of any safety-related equipment and eliminates the potential for a pipe crack degrading the diesel engine performance. All applicable design bases are met. The functional operation of the demineralized water supply line and the integrity of the system are not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Operability of the diesel generators is improved by eliminating the potential for a seismically induced pipe crack to impact the diesel engine air filter and affect engine performance. Upgrading the demineralized water piping is performed in accordance with existing Seismic Category I criteria.

3. Upgrading the demineralized water piping to Seismic Category I eliminates the potential for a seismically induced pipe crack to impinge the diesel air filter and degrade engine performance. Operability of the diesel engine is improved. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-108 Rev 1 Remove the Unit 1 main power transformer from service to repair a loose core/coil assembly. Install the Plant Hatch spare transformer. Repair the original transformer by reblocking and reclamping the existing windings. (Revision 1 of this DCR restores the original transformer to service.)

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The repair does not affect the performance of the transformer in any way. The main power transformer does not provide power to any safety-related loads.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Reinstalling the original transformer does not introduce any new accident mechanisms or equipment failure modes.

3. No TS parameters are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-182 Rev 0 Add cooling fans in the SPDS graphic display generator to more effectively remove internal heat and consequently, improve performance.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification does not affect the function of the graphic display generator. This change improves reliability. The entire system (fan, generator, and panel) is not safety related.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The entire modification involves nonsafety-related systems and components. The modifications will be performed in accordance with the existing design basis. Therefore, no new types of accidents or safety-related component malfunctions are introduced.

3. The modification does not involve the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-188 Rev 0 Replace recirculation pump motor 1B31-C001A 600VAC 3-phase space heaters with 550VAC 3-phase space heaters to protect the upper portions of the recirculation pump motor from the formation of potentially damaging condensate when the motor is not operating.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The recirculation pump motor space heaters perform no safety-related function, and their replacement will not degrade the performance or seismic integrity of the pump or performance of the recirculation system. The replacement will not change system function or operation and will not affect the abnormal operational transients analyzed in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new space heaters will perform the same function as the old heaters replaced, and since the operation of the recirculation pump motor will not be affected, the performance of the system's original design basis will not be degraded.

3. Replacing the space heaters does not require any acceptance level or failure point changes. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-230 Rev 0 Remove two existing trend recorders and install two new digital displays with associated power supplies in MCR panel 1H11-P603. Install terminal server, and associated accessories and cables in the MCR. These components are part of the new plant process computer which will be installed under a separate DCR.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All components are mounted seismically to preclude Category II/I concerns. These components are neither connected to the existing computer nor energized, and have no adverse impact on any safety-related system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification is nonsafety related and does not interface with or impact operation of any safety-related system.

3. None of the components are addressed in the TS. This modification has no impact on the function or operation of any safety-related system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-246 Rev 0 Relocate existing pressure transmitter, switches, and indicators from the electrohydraulic control housing to a local instrument rack.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a change to nonsafety-related equipment and does not affect the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a change to nonsafety-related equipment and does not affect the FSAR.

3. The TS are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-006 Rev 0 Install an electromagnetic interlock for the PASS room airlock doors to prevent simultaneous opening of both airlock doors. Provide an alarm in the MCR to annunciate if both doors are opened simultaneously.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification does not adversely affect any component or structure which makes up the secondary containment boundary or any other safety-related system. To prevent procedural and TS violation of the secondary containment integrity due to simultaneous opening of both doors, this change installs controls which are similar to other airlocks in the plant.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This nonsafety-related modification satisfies existing design bases and has no adverse impact on the function or operation of any safety-related system.

3. This modification does not adversely affect any secondary containment TS limits; it enhances the ability to maintain secondary containment. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-022 Rev 0 Replace moisture separator reheater 2nd stage steam flow differential pressure transmitter with a new transmitter from a different manufacturer.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a change to nonsafety-related equipment and does not affect the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a change to nonsafety-related equipment and does not affect the FSAR.

3. The TS are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-031 Rev 0 Add injection and sampling points on the feedwater lines to allow a tracer solution to be injected into the reactor vessel for calibration of the feedwater venturi flow measurement equipment.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The tracer solution does not adversely affect the fuel assembly or the feedwater system. All design, materials, and construction standards applicable to the condensate and feedwater system are maintained. Additionally, this design change does not alter the accident response of any equipment important to safety or prevent it from performing its intended function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Adding injection and sampling points in the reactor feedwater system poses no possibility of an accident. The system was analyzed to ensure no potential for fuel bundle flow blockage or fuel damage exists.

3. The concentration of sodium in the reactor feedwater system remains well within the established guidelines. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-034 Rev 0 Relocate the EHC pressure switches N32-N300, -N301, and -N302, to eliminate possible miscalibration resulting from the vibrating EHC skid. Mount pressure gauge N32-R300 on a modified existing support structure for N32-N305 installed near the EHC skid.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Relocating the EHC low pressure trip pressure switch, pressure indicator, and EHC pump start pressure switches off the EHC skid does not change the function or operation of the EHC system and does not introduce any failure modes that would increase the probability of an accident already analyzed in the Unit 1 FSAR. The design and material associated with this modification are compatible with the original design specifications of the EHC system. None of the equipment involved with this modification is safety related and the result of this modification will be to increase the reliability of the EHC system and avoid unnecessary plant trips.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The N32 nonsafety-related system design basis, function, and operation remain unchanged, while reliability is enhanced.

3. The change is to a nonsafety-related system. The margin of safety as defined in the TS is not impacted.

91-049 Rev 1 Relocate the isolation valve for the auxiliary steam supply to the the nitrogen inerting system. Add supports to meet seismic criteria.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The design, which is a nonsafety-related component/system modification, meets all applicable design and construction standards. A moderate-energy line break analysis was performed; no safety-related components were impacted by jet impingement or flooding. Pipe support modifications meet the seismic and high-energy line break requirements.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. All applicable design requirements of the system are met.

3. No failure points or acceptance limits as defined in the basis for any TS are altered. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-065 Rev 0 Replace turbine eccentricity and vibration recorder 1N30-R900 (L&N Model 250 Speedomax) in panel 1H11-P650 with a Model 2500.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The 1N30-R900 recorder is nonsafety related and performs no safety function. The replacement recorder (L&N Model 2500) will have the same physical dimensions and weight and will perform the same function as the old recorder. The seismic integrity of panel 1H11-P650 is not adversely impacted by the installation of a L&N Model 2500 recorder.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not degrade the performance of the 1N30 system. The replacement recorder will have the same design functions and interfaces with other systems as originally designed and will not introduce any new failure modes.

3. No failure points are decreased and no acceptance limits are increased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-103 Rev 0 Replace existing circulating water discharge valve (designed for a minimum flow rate of 1000 gpm when fully closed) and its motor actuator and associated electrical protection with a new ANSI Class V leak-tightness valve of the same type, i.e., butterfly valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement valve meets the same code requirements as the original valve. The original leakage requirement is no longer applicable. This modification does not adversely impact the function or operation of the affected system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This design change is nonsafety related. Replacing the valve with an equivalent valve having no design flowrate when in the closed position does not adversely alter the function of the affected system.

3. This modification precludes the uncontrolled discharge of chemically treated water to the environment. The replacement valve meets the same specifications as the original valve, except that positive closure is provided in the new valve. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-176 Rev 0 Replace moisture/separator and heater drain system check valve 1N22-F052B.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The check valve replacement meets original design requirements. The moisture/separator and heater drain system is a nonsafety-related system, which will be restored to its original configuration.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement valve is an equivalent to the existing check valve.

3. System operation, design, and function are unchanged. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-181 Rev 0 Add an isolation valve in the RPV bottom head drain piping downstream of 1B31-F030 to limit the amount of leakage from the reactor vessel and the RWCU system into the radwaste system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This valve addition meets the design, material, and construction codes and standards applicable to the affected system (B31). Adding this valve and its effect on the piping system were seismically evaluated and determined to be acceptable. This change will not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. No previously analyzed accident precursors are affected. This change does not affect the ability of any safety-related equipment to perform its safety function, nor does it add any safety-related components that could be affected by any equipment malfunction.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The new valve and piping arrangement meets the Seismic Class I criteria, and is enveloped by the existing Seismic II/I evaluation. No new system operating parameters, interfaces, or failure modes are introduced by this design change. The new valve will remain closed during plant operation just as the two existing upstream valves.

3. This valve addition does not modify any failure points or acceptance limits. The leakage limits specified in Section 3.6 of the FSAR are unaffected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

UNIT 2 DESIGN CHANGES (NONSAFETY RELATED)

85-071
Rev 0

Install and energize new VAX 6000-410 computer, data acquisition system cabinet, disk controller (HSC-40), multi-media access center (MMAC-5), terminal servers (DSRVB), fiber-optic transceivers (FOT-T), Decrouter 2000 (DEMSA-DA), thinwire transceivers in the computer room under the new process computer system. Install and terminate power, control, fiber-optic and signal cables between various equipment, thereby allowing energization of the equipment. Install transceivers (TPT-T), DSRVB, and work stations in the service and simulator buildings.

1. The modification consists of installation of nonsafety-related equipment and does not interfere with any permanent plant system. The new equipment performs no safety-related function and is installed so that no adverse interaction with the existing safety-related equipment can occur.

2. The process computer system has no safety design basis and provides no safety-related function. The modification requires attachment to Seismic Category I structures; however, this design does not adversely affect the integrity of the structures.

3. The new equipment will not become an operative part of the process computer system until subsequent design changes are implemented. Thus, the TS are not affected.

85-116
Rev 0

Replace major components of the TIP system with upgraded components to minimize maintenance associated with the old equipment and improve the system's overall reliability.

1. The upgraded TIP equipment is consistent with the existing design. The TIP system is nonsafety-related and will functionally operate as previously designed.

2. The upgraded TIP system performs internal self-tests, increases system reliability, and maintains the integrity of the overall system design and function. No new safety equipment interfaces are established by the installation of new TIP equipment. The upgraded TIP equipment enhances system design and reliability.

3. Valves addressed by the TS are not affected by the upgrade of the TIP equipment. The new TIP system increases reliability and is not a safety-related system.

86-356
Rev 0

Remove the original Unit 2 reciprocating air compressors (3), aftercooler/moisture separators (3), 100-percent capacity prefilters (2), and 100-percent capacity afterfilters (2). Replace with new 700-scfm (1) and 500 scfm (2) oil-free rotary screw air compressors, after/cooler moisture separators (3), 100-percent capacity prefilters (2), heat regenerative desiccant air dryer with two 100-percent capacity chambers (1), and 100-percent capacity afterfilters (2) to improve the reliability and maintainability of the system.

1. The service air system is not safety related; all safety systems that use air function as originally designed. The service and instrument air systems function and operation are unaffected by this modification.

2. This modification meets all the existing design and construction requirements of the service and instrument air systems. This modification does not affect any equipment required to function during any plant accident. All equipment which requires service or instrument air to operate will operate as originally designed.

3. This modification does not affect any parameters discussed in the TS, nor does it require the addition of parameters.

86-417
Rev 0

Add a manually operated bypass line around RWCU filter/demineralizer redundant inlet isolation valves 2G31-F052A/B and 2G31-F053A/B of both trains. Replace existing two-position control switches for valves 2G31-F053A/B with three-position control switches.

1. This modification occurs in the nonsafety-related portion of the RWCU system, immediately upstream and downstream of the filter/demineralizer redundant inlet isolation valves of both trains. The design change does not impact a safety-related function of any system/structure/component.

2. The piping and valves are in accordance with the design requirements for the RWCU system. The new piping is properly supported; there are no Seismic Category II/I concerns. The section of piping to be modified will not affect the RWCU line break analysis described in the FSAR.

3. This modification does not affect the RWCU system design intent. However, the control logic for filter/demineralizers inlet isolation valves 2G31-F053A/B will be affected by the new three-position control switches, temporarily affecting

the automatic operation of the step switch program of the RWCU system. The manual actions (operation of the manually operated bypass line around the filter/demineralizer redundant inlet isolation valves) are executed when the program is in the "pause" mode or in an "automatic" mode not affected by the manual action.

88-040 Rev 0 Install a new air handling unit with a chilled water cooling coil and supply fan in the main steam pipe chase to reduce ambient temperature. Upgrade the existing air handling unit by replacing its cooling coil and supply fan with higher capacity components. Modify the system control logic such that the new unit becomes the primary room cooler and the existing unit becomes a standby.

1. Steam chase HVAC equipment does not perform a safety-related function; however, all components are installed in accordance with seismic criteria to prevent adverse impact to safety-related equipment in the area. The increase in steam chase cooling capacity is incorporated to maintain lower ambient temperatures and provide a standby cooler to improve system reliability. No effects to safety-related equipment failures are introduced.

2. The changes to existing equipment and installation of new equipment meet existing design criteria. The cooling equipment mounting, pipe, raceways, and controls incorporate seismic considerations, and the fan housings are analyzed to contain fan blade-generated missiles. The basic function of the steam chase cooling system is not changed.

3. Adding cooling capacity to the steam chase area will not affect the TS limitations of the main steam line tunnel temperature sensors because the ambient temperature obtained will not impact the high-energy line break analysis initial conditions as specified in the FSAR.

88-071 Rev 0 Rearrange the annunciator windows on panel 2H11-P603 to make it easier for the operators to gather information and respond to abnormal operating conditions.

1. Regrouping the annunciators will improve operator response in the event of an accident. The annunciators do not have an operational function related to the plant.

2. The annunciators do not have any effect on plant operation; they only inform operators of plant abnormalities. Regrouping the existing annunciators will not introduce any new failure modes.

3. Regrouping the annunciators will not change any setpoints, limits, or operation of any system or equipment.

88-282 Rev 1 Add blind flanges to the auxiliary steam system isolation valve to improve the seal between the auxiliary boiler, which is not operational and has been isolated, and the reheat steam seal system, thus preventing backflow leakage through the auxiliary steam system piping. The interface with the auxiliary steam system remains available.

1. The design requires all materials to be consistent with the existing reheat seal steam system's design criteria.

2. This modification is made to a nonsafety-related system that is currently not operational and is isolated from service. The reheat steam seal system is not impacted by the addition of the blind flanges. The addition of the blind flanges does not eliminate the connection but preserves the interface for future access while eliminating possible steam leaks.

3. The design, function, and operation of the steam seal system remains unchanged; only the source of supply is impacted. The TS do not discuss the systems involved with this activity.

88-353 Rev 0 Increase a control power feeder in the RMCS to provide an increase in cable size.

1. The larger power feeder reduces the probability of a malfunction. Overall operation of the cable and system is unchanged.

2. The replacement of the cable does not introduce any new accident mechanisms or equipment failure modes.

3. The increase in cable size slightly increases tray loading; raceway loading continues to be within acceptable limits.

88-358 Rev 0 Replace starter breakers in the MCCs for RWCU precoat pump, fuel pool holding pump, PSW MOVs to and from the waste gas treatment building, and a feeder breaker in the MCC for alternate supply to the cooling tower fans for the reactor building and radwaste building chillers to provide coordinated short-circuit protection for the cables, starter components, and load devices.

1. The modification improves short-circuit protection to the motor circuits. All equipment served by the affected nonsafety-related breakers are also nonsafety related. System function and response remain unaffected by this design change. The replacement breakers satisfy the existing design requirements.

2. No new equipment malfunction is postulated. The existing power cables are adequately sized for the loads. Replacement of the starter breakers and a feeder breaker does not alter the function of the affected equipment or systems.

3. The replacement of nonsafety-related breakers associated with nonsafety-related systems is not addressed in the TS.

89-064 Rev 0 Retrofill cooling tower transformers 1R23-S005 through 1R23-S010 with Unison's TF-1 fluid to eliminate the environmental health hazard of PCBs.

1. This modification will only be made with the unit shut down and will not affect any system required to achieve or maintain plant shutdown. The properties of TF-1 fluid have been reviewed and found to be similar to PCB fluids. The modified cooling tower buses will provide adequate, reliable power and will handle the current loads. No system operation involved in any of the FSAR accident scenarios is adversely affected.

2. The equipment involved in this change was evaluated for any malfunctions caused by loss of power to subsequent components. All subsequent components are nonsafety related. The modified transformers will still handle their current loads, and no system operation, response, or reliability is affected. No new failure modes are introduced.

3. Since the transformers affected by this change are nonsafety-related and no system operation or response is affected, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered.

89-096 Rev 1 Add a globe and check valve in the low pressure service air blower header to the condensate demineralizer vessels to provide isolation between the valves and prevent condensate from backing up into the header and being released to the atmosphere during the backwash process.

1. This design change meets the design, material, and construction standards applicable to the service air system. The addition of these valves will prevent the possibility of contaminants being discharged into the atmosphere by the service air blower. The system will be operated as before, and there is no effect on the operation of any equipment important to safety.

2. The function and operation of the systems affected are not changed. The affected piping is only used for backwash operations and has no impact on any other system function.

3. The modification has no impact on any systems referenced in the TS.

89-124 Rev 0 Retrofill station auxiliary transformers 2R23-S001, 2R23-S002, 2R23-S011, 2R23-S012, 2S11-S006, 2R23-S014 normal/alternate; 2R23-S015 normal/alternate; and 2R23-S021 normal/alternate with Unison's TF-1 fluid to eliminate the environmental health hazards of PCBs. Hot transfer load of nonsafety-related buses 2A, 2B, 2AA, 2BB, 480V lighting 2A, 600V recombiner building, and 120V/208V 2A to an alternate power source before transformers are isolated for retrofill.

1. This modification will only be made with a suitable alternate power source supplying affected loads. The properties of TF-1 fluid were reviewed and found to be similar to PCB fluids. The modified cooling tower buses will provide adequate, reliable power and will handle the current loads. No system operation involved in any of the FSAR accident scenarios is adversely affected.

2. All equipment involved in this change was evaluated for any malfunctions caused by loss of power to subsequent components. There are no new possibilities of failure due to that consideration. The modified nonsafety-related transformers will still handle their current loads.

3. The transformers affected by this change are nonsafety related, and no system operation or response is affected. Therefore, no allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered.

89-130
Rev 0

Add one alarm each on MCR panel H11-P650, modify the standby condensate booster pumps auto-start logic, and add local indication of pressure switch failure for reactor feed pumps low suction pressure switches and two-out-of-three pressure switch logic. Implement the two-out-of-three logic using new pressure switches 1N21-N122 and -N123, and existing pressure switch 1N21-N055. Stagger the trips of the reactor feed pumps and condensate booster pumps on low suction pressure by increasing the time delay in the control logic. This modification also provides two-out-of-two pressure switch logic for condensate booster pumps low suction pressure trip and an auto-start of standby condensate booster pumps on low suction pressure alarm and increased reliability of the condensate booster pumps system. This will reduce the number of low water level scrams due to feedwater pump trips during plant transients.

1. This modification will reduce the probability of a low reactor level scram by decreasing the probability of feedwater pumps trips and improving the performance of the feedwater system. The condensate and feedwater system is not required to mitigate results or consequences of any accident in the FSAR. No other safety system is adversely affected by this change.

2. The condensate and feedwater system performance is expected to improve by this modification; no new or different type of accidents will be introduced by this change. The feedwater system modification will not alter or adversely affect any safety-related equipment or any equipment required to support the operation of safety-related equipment.

3. The condensate and feedwater system is not addressed in the TS. These modifications reduce the probability of challenging the RPS due to a low RPV water level initiated by feed pump trip. No failure points or acceptance limits of any equipment are altered by this change.

89-220 Rev 0 Install a level indicator in the SFP to visually determine, with accuracy, the level of the SFP above the top of the active fuel.

1. The level indicator adds redundancy to the methods for determining SFP level, thus decreasing the consequences of any malfunctions.

2. The possibility of an accident or failure mode different from those previously evaluated is not created, since an accident involving the indicator dropping or falling is of less consequence than a fuel bundle dropping.

3. No system design failure points or system limits are decreased. No acceptance limits are increased by this modification. Adding the level indicator will minimize the potential of conducting refueling operations outside the analyzed bounds of the basis for the SFP water level.

89-242 Rev 0 Add two sight flow indicators for leak detection for the fuel pool liner cavity drains in the liner cavity drain piping just downstream of valve 2G41-F043.

1. This design change meets the design, material, and construction standards applicable to the radioactive floor and equipment drain system (2T45) and the SFPCC system (2G41), which are the only systems affected. The function and operation of these systems are not affected; therefore, the performance characteristics and operating environment will not degrade. This change will assist in locating the source of SFP leakage should it occur. This change does not change, degrade, or prevent any actions assumed in an accident, nor does it affect any systems that play a direct role in mitigating the consequences of an accident.

2. No equipment important to safety is affected by this addition. No change is being made to the operating characteristics of any systems.

3. This design change does not alter the basis for the TS sections on minimum water level in the RPV or SFP. Neither does it change the depth requirement, or the surveillance requirements.

90-030 Rev 0 Install a passive GE zinc injection passivation system to inhibit the corrosion of stainless steel, thereby reducing the buildup of Co-60 on RCPB piping surfaces.

1. The condensate and feedwater system function, operation, and safety limits are not affected by the addition of a passive GE zinc injection system. No important-to-safety equipment is affected by the installation and operation of the passive zinc injection system.

2. The condensate and feedwater system function and operation remain the same. The failure modes of safety-related equipment are not affected by adding the passive GE zinc injection system.

3. No safety requirements are introduced or changed due to this design change. Zinc does not influence any of the reactor operating characteristics or operating variables.

90-032 Rev 0 Install ion chromatographs to monitor the zinc content in the primary reactor coolant and reactor feedwater to assure the presence of trace quantities of soluble zinc (Zn++) to suppress the buildup of Cobalt(60) on the RRS piping (in compliance with EPRI recommendations to reduce radiation exposure rates).

1. No system operation, system integrity, or safety limits are affected by the addition of the ion chromatographs. The function and operation of all other systems remain the same. No equipment important to safety will be affected by the installation of the ion chromatographs.

2. No new accidents are postulated due to this modification because the function and operation of all other systems will remain the same. This change only adds connections to the existing sample system to supply the ion chromatographs. Failure modes of equipment important to safety are not affected by adding the ion chromatographs of the sample system connections.

3. No safety requirements are introduced or changed due to this modification. The addition of the ion chromatographs does not affect the allowable limits or failure points of any component or system.

90-062
Rev 0

Install GE-SIL-480 modification to the HPCI turbine's hydraulic control system to reduce the severity of the effect of a turbine speed startup transient on the HPCI turbine.

1. Based on satisfactory operation of equipment during testing by GE and the vendor, Terry Turbine, and the fact the system is operating satisfactorily at other BWR facilities, the probability of malfunction of the HPCI equipment is not increased, rather an improvement in its operation will be realized.

2. The system modifications meet all the existing design and construction requirements of the original system.

3. The design and functional requirements of the system are unchanged. Operational requirements are improved.

90-083
Rev 0

Replace existing accelerometer 2L51-N004 with a Kinemetrics model FBA-3 to provide a higher sensitivity range ±2g FS over the feedwater loop B inlet piping DBE of 1.2g.

1. All standards, codes, and specifications required by the present equipment in the 2L51 system will remain unchanged and satisfied as a result of this modification. The function and operation of all plant systems remain unchanged by this modification.

2. There are no changes to existing plant system operation, and no new modes of failure are introduced as a result of this modification. The replacement accelerometer meets Seismic Category I requirements and is mounted in the same location as the previous equipment.

3. The margin of safety as defined in the basis for TS table 3.3.6.2-1 remains unchanged. The equipment is a direct replacement as to form, fit, and function (with the exception of range). Sensitivity of the device is increased.

90-099 Rev 0

Add a check valve in the CRD purge piping supplying the RWCU sealless pump in the ASME Section III, Class 3 portion to provide redundant protection of the Pipe Class DCE (ANSI B31.1) piping located upstream of valve 2G31-F149B, help with mixing of the water in the motor cooler of the sealless pump, and prevent magnetite (Fe_3O_4) buildup and excessive corrosion and wear of the motor internal parts.

1. This design change meets the design, material, and construction codes and standards applicable to the RWCU system. Addition of a check valve will not create a failure mode not previously analyzed, change the operating environment of the equipment, or cause the system to be operated outside of the design limits. The CRD purge supply piping does not play a role in mitigating the consequences of an accident.

2. The new check valve will perform the same function as existing check valve 2G31-F230 when the purge flow is routed to the upper motor connection. The addition of this new check valve will not affect the pipe whip/jet impingement analysis of the large-bore RWCU piping in the pump room.

3. The bases for the TS dealing with RWCU and water chemistry are not affected, and no changes to these limits are required by the addition of this check valve.

90-124 Rev 0

Replace the existing temporary personnel contamination frisker building located outside the overhead crane bay door at the southeast corner of the Unit 2 turbine building with a prefabricated building that meets the fire protection requirements of Nuclear Mutual Limited Insurance.

1. The frisker building contains no safety-related equipment and does not impact any safety-related equipment.

2. The modification upgrades nonsafety-related equipment and does not change the function or operation of any safety-related equipment.

3. The TS are not affected by this change.

90-150 Rev 0 Upgrade the existing Unit 2 demineralized water supply lines to the diesel generator jacket water cooling system, and associated support, from Seismic Category II to Seismic Category I to eliminate the potential for pipe cracks to impact the diesel generator air filter.

1. The design change does not adversely affect operation of any safety-related equipment and eliminates the potential for a pipe crack degrading the diesel engine performance. All applicable design bases are met. The functional operation of the demineralized water supply line and the integrity of the system are not affected.

2. Operability of the diesel generators is improved by eliminating the potential for a seismically induced pipe crack to impact the diesel engine air filter and affect engine performance. Upgrading the demineralized water piping is performed in accordance with existing Seismic Category I criteria.

3. Upgrading the demineralized water piping to Seismic Category I eliminates the potential for a seismically induced pipe crack to impinge the diesel air filter and degrade engine performance. Operability of the diesel engine is improved.

90-157 Rev 0 Add a support to a reheat steam valve motor operator to eliminate stresses in the valve packing region causing valve stem leakage.

1. The system is nonsafety related and nonseismic, and is not an accident initiator or credited with accident mitigation. No safety-related equipment is impacted by this change.

2. The modification meets all applicable design bases and does not create any new failure modes or accidents.

3. The reheat steam system is not addressed in the TS. Availability of the reheat steam motor-operated valve is enhanced by this modification.

90-183 Rev 0 — Add cooling fans in the SPDS graphic display generator to more effectively remove internal heat and consequently, improve performance.

1. This modification does not alter the function of the graphic display generator. This change improves reliability. The entire system (fan, generator, and panel) is not safety related.

2. The entire modification involves nonsafety-related systems and components. The modification meets the system design basis. Therefore, no new types of accidents or safety-related component malfunctions are introduced.

3. The modification does not involve the TS.

90-231 Rev 0 — Remove two existing trend recorders and install two new digital displays with associated power supplies in MCR panel 2H11-P603. Install terminal server and associated accessories and cables on the operator's console in the MCR.

1. All components are mounted seismically to preclude Category II/I concerns. These components are neither connected to the existing computer nor energized, and have no adverse impact on any safety-related system.

2. This modification is nonsafety related and does not interface with or impact operation of any safety-related system.

3. None of the components are addressed in the TS. This modification has no adverse impact on the function or operation of any safety-related system.

90-243 Rev 1 — Replace the float chamber for SFP level switch 2G42-LS-N362 with a larger diameter float chamber to eliminate binding of float (displacer).

1. This modification is to a nonsafety-related component. The function of the system is unchanged, while reliability is enhanced.

2. Neither the system description, function, or operational characteristics are changed by this modification to a nonsafety-related component. The change enhances the reliability of the component.

3. The SFP storage pool system margin of safety in the basis for the TS is not impacted by this modification.

90-245 Rev 0 Replace cathodic protection anodes in the main condenser water boxes with new upgraded Harco Design anodes to eliminate leakage and stress problems.

1. The new anodes are a modified Harco design and are more reliable for condenser water box applications than the existing anodes. The new anodes use the same electrical supply, which is not safety related, and the same mounting penetration into the water boxes as the original anodes. This modification increases the integrity and reliability of the condenser water boxes. The Harco anodes are less likely to leak water than the existing anodes, thereby increasing the online capability of the condenser water boxes and water box cathodic protection system. This modification does not change any logic on the loss of a water box.

2. The mode of operation is unchanged. No equipment important to safety is altered in function, integrity, or operation.

3. The replacement anodes meet more stringent specifications than the existing anodes. No acceptance limits are increased and no failure points are decreased.

91-032 Rev 0 Add injection and sampling points on the feedwater lines to allow injection of a tracer solution into the reactor vessel and calibration of the feedwater venturi flow measurement equipment.

1. The tracer solution does not adversely affect the fuel assembly or the feedwater system. All design, materials, and construction standards applicable to the condensate and feedwater system are maintained. Additionally, this design change will not alter the accident response of any equipment important to safety or prevent it from performing its intended function.

2. Adding injection and sampling points in the reactor feedwater system poses no possibility of an accident. The system has been analyzed to ensure no potential for fuel bundle flow blockage or fuel damage exists.

3. The concentration of sodium in the reactor feedwater system remains well within the established guidelines.

91-033 Rev 0 Replace the pipe material for the reactor feed pump stuffing box intermediate drains with a chrome-moly material to provide greater erosion resistance.

1. This system is nonsafety related and has no impact on safety-related systems. All applicable design and construction standards have been applied. System reliability has been increased, with no effect on safety-related system responses.

2. The design requirements of the system are being maintained. No direct or indirect impact on safety-related equipment results from this modification.

3. The condensate and feedwater design basis has not been altered by this modification. Therefore, no failure points or acceptance limits, as defined in the basis for any TS, are introduced or altered.

91-044 Rev 0 Relocate the EHC pressure switches 2N32-N387, -N388, and -N389 to eliminate possible miscalibration resulting from the vibrating EHC skid. Mount new pressure gauge 2N32-R310 on a new instrument support installed near the EHC skid.

1. Relocating the EHC low pressure trip pressure switch, pressure indicator, and EHC pump start pressure switches away from the EHC skid does not change the function or operation of the EHC system and does not introduce any failure modes that would increase the probability of an accident already analyzed in the Unit 2 FSAR. The design and material associated with this modification are compatible with the original design specification of the EHC system. None of the equipment involved with this modification is safety related and the result of this modification will be to increase the reliability of the EHC system and avoid unnecessary plant trips. The new pressure gauge function will remain the same as the existing gauge.

2. The N32 nonsafety-related system design basis, function and operation remain unchanged, while reliability is enhanced.

3. The change is to a nonsafety-related system. The margin of safety as defined in the TS is not impacted.

91-068 Rev 0 Remove the CRD chute crosswalk in the Unit 2 drywell to enhance foot traffic in this area.

1. The crosswalk over the CRD chute is not safety related. Its purpose is to aid access across the CRD chute at El 127 ft 10-1/2 in. in the drywell. Due to congestion in the area, it is easier to step over the chute or step on a temporary floor which is removed at the end of the outage.

2. The crosswalk is nonsafety-related and does not affect any safety-related equipment or component.

3. Removing the crosswalk will not reduce the safety margin of the platform steel.

91-074 Rev 0 Modify the RWCU pump thrust clamp plate to accept a locking tab washer.

1. Adding locking tab washers will decrease the probability of an accident.

2. This modification will ensure design integrity is maintained.

3. All design and operational requirements will remain unchanged.

91-084 Rev 0 Replace 14 damaged cables in blocked conduit 2MT1261. Add five new conduits to allow rerouting of the cables to their original destinations. Splice new cables with existing cables near the turbine pedestal. Install 2100 ft of H01 cable, 1750 ft of K04 cable, and 1050 ft of N07 cable. Replacement of damaged cable and splicing of new cable allows turbine and MSR instrumentation to provide monitoring and annunciation for operation of the turbine.

1. This modification affects the turbine control and reheat systems 2N32 and 2N38 which are not safety related. No safety-related equipment or documents are affected.

2. This modification does not require a change to any system description as described in the FSAR.

3. The turbine control and reheat system are not discussed in the TS.

90-0375 Rev 0 Revise the circulating water system P&ID to show the installation of a pressure gauge and cap on circulating water and CST water sampling connection.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The probability of loss of feedwater or condenser circulating water piping failures is not increased. The consequences of loss of feedwater and piping failures in the vicinity of the condenser water boxes are not changed from those evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change does not affect reactor or radwaste system operations.

3. TS limits for liquid effluents to the environment are not affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0378 Rev 0 Revise the instrument air system P&ID to identify a drain valve on the air header.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The safety of the plant as analyzed in the FSAR is not impacted by the instrument air system drain valve which has no control function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The drain valve operational capability has no adverse effect on safety-related functions. The physical, functional, and operational aspects of existing plant equipment are unchanged. No new accident scenarios are introduced.

3. The identified drain valve has no impact on the TS. Limiting conditions of operation are not exceeded. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0387 Rev 0 Revise the primary containment purge and inerting system P&ID to change the valve designations from globe to gate valves. This change corrects a previous drafting error.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to the primary containment purge and inerting sysytem P&ID. This system is safety-related; however, no accident evaluation in the FSAR is affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change documents an existing plant configuration which has no impact on safety-related equipment. No new modes of failure are introduced.

3. No safety limits or failure points are involved in this change. There are no changes to any system equipment or documentation which could affect the TS margin of safety.

90-0404 Rev 0 Adds "dewatering and drying system" piping, and associated resin tanks to the radwaste system (2G12) P&ID.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a nonsafety-related radwaste solidification system P&ID.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a documentation change only. The function and operation of the system are not affected. This change was previously approved and documented by DCR 81-050.

3. This is a documentation change which does not affect the TS or ETS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0410 Rev 0 Revise the drywell pneumatic system P&ID to show proper valve positions and delete valves which do not exist.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change documents existing conditions; the drywell pneumatic compressors are not used. No changes affect actual system configuration.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a documentation of existing conditions. Operation or function of the drywell pneumatic system is not affected. No new modes of failure are introduced.

3. The portion of the drywell pneumatic system addressed by this change is not addressed by TS. No safety limits or failure points are affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0415 Rev 0 Revise the CRD system P&ID to describe the appropriate drawing layout of a CRD instrument signal.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The CRD component arrangement remains unaltered and functionally the same. The system design configuration is consistent with the FSAR description.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new system interfaces are generated by this revision.

3. This modification is in compliance with the Unit 1 TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0426 Rev 0 Revise the process radiation monitoring system P&ID to correct a mislabeled MPL number.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a safety-related P&ID. The change does not affect system operation physically, functionally, or operationally.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is an editorial drawing change that does not affect system operation or function. No new accident scenarios or modes of failure are created.

3. This is an editorial drawing change. TS operating conditions and surveillance requirements are not impacted. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0427 Rev 0 Revise demineralized water system P&ID to identify three valves as normally closed.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The demineralized water supply system is not safety related. The change does not affect safety-related systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new system operation or function is established.

3. The demineralized water supply system is not addressed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0434 Rev 0 Revise setpoint index to show IRMs measure power in units and not percent.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Equipment and system functions remain as previously evaluated and the operating conditions are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created by this change.

3. No logic, operating limit, or system function changes result from these changes. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0454 Rev 0 Revise the turbine building chilled water system P&ID (H-16327) to add vent/drain connections and remove the pressure test point and flow element.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The components being added and deleted are nonsafety-related and, therefore, cannot degrade the operation of any safety-related equipment. Sufficient instrumentation remains to allow the balancing of flow and the testing of system components.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The components being changed cannot cause reactor accidents or radioactive releases outside the turbine building.

3. TS limits on radioactive releases are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0456 Rev 0 Revise recirculation system P&ID to add existing orifice plates.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only. The added orifice plates are in the original design configuration.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a documentation change only; no new modes of failure are introduced.

3. The added orifices are per the original design configuration. The margin of safety as defined in TS is not affected.

90-0457 Rev 0 Revise the radwaste system P&ID to add a flow connection for the liquid radwaste system to the CST.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The original FSAR analysis included the interface between the liquid radwaste system and the CST.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Liquid radwaste system operations are independent of reactor operations. Condensate supply to the HPCI and RCIC systems is not affected.

3. TS limits for radioactive effluents, and HPCI and RCIC systems availability are not degraded by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0459 Rev 0 Revise the process radiation monitoring system P&ID to identify a sample inlet valve as normally open.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Functionally, the sample inlet valve is not safety related. The valve is automatically controlled to the open position when system operations are in progress. Monitoring of process radiation is achievable.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The valve's open position establishes no new modes of operation. The process radiation monitoring system operates and functions in accordance with its FSAR description.

3. TS for the process radiation monitoring system are maintained with the sample inlet valve in the open position. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0466 Rev 0 Revise the service air system P&ID to add illustration and identification of existing equipment, and relocate other equipment to more accurately represent the as-built condition.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change to improve information and provide a more accurate illustration of the as-built system configuration. The change does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0483 Rev 0. Revise the PSW system P&ID to document as-built PSW pipe routing.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Any possible flooding from the 1-in. lines is less probable and less severe than the flooding in the turbine building/control room previously evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The as-found pipe routing does not increase the possibility of any failure due to the loss of the condensate or condensate booster pump motors.

3. PSW availability and testing of equipment area coolers are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0484 Rev 0 Revise PSW system P&ID to correct suffix letters for two normally closed vent valves and change the header tap location for the flow element.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This drawing change corrects a typographical error and provides a more accurate representation of the PSW system as-built configuration. The change does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0485 Rev 0 Revise the PSW system P&ID to reflect actual piping configuration associated with the reactor building supply line and a drain connection at the inlet side of the 1B diesel.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a safety-related P&ID which does not affect the PSW system operation or function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This documentation change does not introduce any new accident scenarios or modes of failure.

3. TS operating conditions and surveillance requirements are not affected. No environmental concerns are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0486 Rev 0 Revise the PSW system P&ID to show correct piping configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a change to the P&ID only and does not affect system design criteria, operations, or any accident analysis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a document change only. No new modes of failure are introduced.

3. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0488 Rev 0 Revise PSW system P&ID to relocate the sample return taps on a service water header.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change to provide a accurate illustration of the system as-built configuration. The change does not affect PSW system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0491 Rev 0 Revise the PSW system P&ID to relocate an existing sensor tap for a differential pressure switch.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Clarification of the tap's location on existing piping does not affect any equipment. The PSW system is maintained within its FSAR description.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change creates no new accident scenarios and introduces no new failure modes of operation.

3. The TS are not affected by this change. No safety limits or limiting conditions of operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0498 Rev 0 Revise the PSW system P&ID to identify vent valves, an instrument sensor tap, and pipe configuration for interface with the turbine lube oil heat exchangers.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The turbine building portion of the PSW system is not safety related. Vent valves prevent air entrapment in the heat exchangers which would impede cooling and increase corrosion. Service water piping to the turbine building is isolated automatically upon a turbine building pipe rupture, thereby providing protection for the safety-related portions of the PSW system. There is no increase in the effects of flooding already postulated in the FSAR.

   The instrument sensor tap pertains to a flow element valve. Adding this sensor valve does not change the function or operation of the turbine lube oil heat exchangers.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not create any new accident scenarios or introduce any new failure modes of operation.

3. The TS are not affected by this change. No safety limits or limiting conditions for operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0507 Rev 0 Revise the FPCC system P&ID to show an existing alarm and correct an associated reference elevation in the notes section.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is strictly an editorial drawing change which does not affect FPCC system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0520 Rev 0 Revise the P&ID for air supply to CRD SDV vent and drain valve actuators.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The capability of the CRD system to terminate the fission process is not affected. The change does not affect the availability of the SDV to perform its intended function after a control rod withdrawal malfunction.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The instrument air supply to the CRD SDV vent and drain valves cannot cause accidents. Misoperation or failure of these valves will place the affected vent or drain valves in the fail safe position for availability of SDV.

3. TS limiting conditions for operation and surveillance requirements are not affected by this change. No safety limits or setpoints are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0526 Rev C — Revise the control building HVAC P&ID to modify the setpoint of a nonsafety-related differential pressure switch that senses pressure drop across the prefilters of an air handling unit.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. HVAC system operation and function are not affected by this change. The operation and function of any safety-related equipment or system are not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The system description, as contained in the FSAR, is not altered.

3. The referenced differential pressure switch setpoint is not listed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0528 Rev 0 — Revise the PSW system P&ID to change existing valves from gate to globe designations and correct drafting errors.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a safety-related P&ID which does not affect PSW system operation or function. No existing accident scenarios are affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This documentation change does not introduce any new accident scenarios or modes of failure. No equipment important to safety is affected by this change.

3. No safety limits or failure points are impacted by this editorial change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0529 Rev 0 — Revise the PSW system P&ID to eliminate duplicated MPL numbers on the pressure indicator isolation valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only. The assignment of a new MPL number to an existing isolation valve does not affect PSW system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0532 Rev 0 Revise the plant service air system P&ID to change valve position from normally closed to normally open.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a nonsafety-related portion of the plant service air P&ID. Neither the operation nor function of the system is impacted by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change agrees with the plant site service air system operation procedures. No new modes of failure are introduced.

3. This is a change to a nonsafety-related component not addressed in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0537 Rev 0 Revise the SBGT system P&ID to show reactor building and refueling floor versus outside air differential alarms as alarm low instead of alarm high.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a safety-related P&ID. The drawing correction matches the as-built configuration and does not affect SBGT system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0544 Rev 0 Revise the PSW system P&ID to illustrate existing isolation valves not shown with existing pressure indicators.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change and does not impact PSW system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0545 Rev 0 Revise the PSW system P&ID to change a valve MPL number to agree with actual plant conditions.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a safety-related system P&ID which does not affect PSW system operation or function. No safety-related equipment is affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change is purely editorial. No safety-related equipment is affected by this change.

3. This is an editorial change to nonsafety-related equipment. TS operating conditions and surveillance requirements are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0547 Rev 0 Revise the condensate and feedwater P&ID to change valve position from normally open to normally closed.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a nonsafety-related P&ID. No safety-related systems, components, or accident scenarios are affected by this change.

2. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change agrees with plant site system operation procedures. No new modes of failure are introduced.

3. No safety limits or failure points are involved in this change. The system impacted by this change is not addressed in the TS. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.

90-0553 Rev 0 Revise the RWCU system P&ID to show sample panel filters and chiller arrangement.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is strictly an editorial change to improve information and provide a more accurate illustration of the system as-built configuration. The change does not affect system function and operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.

90-0555 Rev 0 Revise the P&ID for the nonsafety-related circulating water system to delete nonexistant 2-in. drain lines and valves.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Circulating water pump drain connection leaks cannot cause accidents not previously evaluated in the FSAR. The availability of the main condenser during loss of feedwater and reactor/turbine control transients is not affected. The availability of the main condenser after a feedwater or main steam control failure is not affected.

2. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Circulating water pump drain connection leaks cannot cause accidents not previously evaluated in the FSAR. This change is restricted to the circulating water pump structure; main condenser availability will not be affected.

3. TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are being introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0558 Rev 0 Revise the diesel generator P&ID to add an MPL number to an existing valve in the diesel starting air system.

1. The probability of occurrence or the consequences of an An accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This editorial change has no physical effect on any plant systems.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. ABN confirmation of an existing MPL number does not increase the possibility of misoperation or malfunction.

3. This editorial change does not reduce the reliability or availability of any system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0575 Rev 0 Revise the control building HVAC system P&ID to show temperature switch taps are located upstream of their respective cooling coils.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This drawing change shows the actual as-built condition of the existing equipment and does not affect the function or operation of the system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0580 Rev 0 Revise the CRD system P&ID to identify three isolation valves as part of the CRD mechanism.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All valves in the air supply lines of the CRD water system controls are isolation valves. The CRD maintains its capability of controlling the RPV's reactivity as previously analyzed in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new structural configurations or electrical interfaces different from the FSAR CRD description are incorporated. The valves have a nonsafety-related function that causes no CRD degradation.

3. The Unit 1 TS do not address any manually operated valves relative to the CRD mechanism. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0581 Rev 0 Revise the HVAC system P&ID to identify a temperature transmitter as part of the turbine building HVAC.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The transmitter is not safety related and does not functionally interface with the safety portions of the HVAC system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new system operation or function is established.

3. The function of the transmitter is not addressed by the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0583 Rev 0 Revise the moisture separator reheater drain system P&ID to add a 1-in. reheater drain connection in the clean radwaste sump within the moisture separator and heater drain system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification adds a 1-in. drain on a 12-in. line. The small size of the drain makes it highly unlikely that it could initiate or worsen a loss of feedwater event.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No credible reactor accident/malfunction can be initiated by the reheater drains.

3. No TS operating conditions, safety limits, or setpoints are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0585 Rev 0 Revise the process radiation monitoring system P&ID to assign MPL numbers to existing plant equipment associated with monitoring the reactor building and offgas ventilation exhaust.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a drawing documentation change to a safety-related system P&ID. No operational or functional changes are made to the process radiation monitoring system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change only documents existing plant equipment on the system P&ID; no new failure modes are introduced.

3. The TS operating conditions and surveillance requirements are not affected. No ETS concerns are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0588 Rev 0 Revise the process radiation monitoring system P&ID to reflect piping configuration and assign MPL numbers to existing equipment in the fission products monitoring system panels.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a P&ID drawing revision to a safety-related system. No functional or operational changes are made to the fission products monitoring system. The plant inspection, testing, calibration, and sampling procedures are not affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No other safety systems, equipment or documents are impacted by this change to the process radiation monitoring system P&ID. No new modes of failure are introduced.

3. TS operating conditions and surveillance requirements are not affected. No ETS concerns are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0601 Rev 0 Revise the PSW system P&ID to add a flange in the section of PSW piping that supplies cooling water to diesel generator 1B.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The flanged connection meets all requirements for this section of PSW piping as previously analyzed in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No plausible reactor accident/malfunction can be initiated by a failure in PSW piping in the diesel generator building. Loss of cooling water to diesel 1B was evaluated in the FSAR.

3. No TS operating conditions, safety limits, or setpoints are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0602 Rev 0 — Make an editorial change to indicate the Seismic Category 1 boundary and interface piping with the demineralized water system, and diesel generator and fuel oil system P&IDs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a drawing documentation change to show the existing interface piping configuration between the demineralized water system and diesel generator systems. The function, operation, and design of the demineralized water system are not changed. No existing accident scenarios in the FSAR are affected by the revision to any P&IDs.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This documentation change does not introduce any new modes of failure or accidents of a different type than any previously evaluated in the FSAR.

3. The TS operating limits and surveillance requirements are not affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0606 Rev 0 — Revise a nonsafety-related turbine building ventilation system P&ID to delete reference to nonexistent exhaust fans.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. No credit has ever been taken for these nonexistent fans; therefore, the consequences or probability of an accident previously evaluated in the FSAR is not impacted. The consequences or probability of a malfunction of equipment important to safety previously evaluated in the FSAR are not affected by this change.

2. The deletion of the reference to the nonexistent exhaust fans does not create the possibility of an accident of a different type or a malfunction of equipment important to safety of a different type.

3. The nonexistent fans are not referenced in the TS or ETS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0610 Rev 0 Revise single-line drawings and electrical load lists for panels 1R25-S001 and 1R25-S002.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Equipment and system functions remain as previously evaluated and the operating conditions are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. These changes do not create any new or unevaluated possibility of an accident or malfunction of equipment.

3. No logic, operating limit, or system function changes result from this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0613 Rev 0 Revise the circulating water system P&ID (H-11036) to delete a vent valve and bypass piping on the suction of the dilution pump in the hypochlorination system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The piping and components are not safety related and, therefore, cannot degrade the operation of any safety-related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The operation and location of the system preclude the possibility of the affected piping equipment causing an accident or malfunction.

3. The availability of the service water systems is not degraded by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0620 Rev 0 Revise the turbine building chilled water system P&ID to correct a switch isolation valve MPL number.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The reference MPL number correction for this nonsafety- related system does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation remain unchanged; no new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might impact the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0630 Rev 0 Revise the radwaste system P&ID to replace a leaking valve in the condensate supply line to the floor drain demineralizer outlet.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Radwaste system integrity is not affected because the replacement valve is the same rating and type as the existing valve. System configuration remains the same.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The material substitution for the replacement valve body is equivalent to the original valve; therefore, reliability is not changed.

3. Liquid waste treatment availability and radioactive effluents are not affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0635 Rev 0 Revise the turbine building chilled water system P&ID to change the configuration of the drain and make-up piping for the turbine building chilled water system expansion tank relief valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. During an accident this piping is isolated from the plant service water system. This change does not affect the operation of any safety-related equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The altered piping meets the original piping specifications. A failure of the drain or make-up piping in this vicinity will not affect any equipment important to safety.

3. PSW system availability is not degraded by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0640 Rev 0 Change the electrical load list to correct and/or add detail descriptions for five different electrical devices.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Equipment and system functions remain as previously evaluated and the operating conditions are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. These changes do not create any new or unevaluated possibility of an accident or equipment malfunction.

3. No logic, operating limit, or system function changes result from this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0642 Rev 0 Make an editorial change to the feedwater heater vents and drains system P&ID by adding an MOV designation to an existing valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a nonsafety-related system P&ID. The operation and function of the feedwater system are not affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is an editorial change to the feedwater system P&ID to reflect existing plant conditions. No new modes of failure are introduced.

3. No TS operating limits or surveillance requirements are affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0646 Rev 0 Revise the FPCC system P&ID to show the normal operating position of one of the system valves.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a partially safety-related system P&ID. The operation and function of the FPCC system are not affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The system P&ID is revised to agree with the plant site procedure for normal system operation.

3. No TS operating limits or surveillance requirements are affected by this change. This change does not impact the ETS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0668 Rev 0 Revise the PSW system P&ID to correct the tie-in point for the return line from the sample station chiller.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a safety-related P&ID and does not change system operation or function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change will not increase the probability or consequences of any safety-related equipment failure. No new accident scenarios are created.

3. This is a P&ID drawing change to document existing plant conditions. TS operating conditions and surveillance requirements are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0001 Rev 0 Revise the PSW P&ID to show the addition of a water regulating valve in the inlet to the sample chiller condenser.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The PSW piping in the turbine building, which is isolated in the event of an accident, does not affect equipment important to safety.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The valve being added can only affect sample chiller operation. No interface with equipment important to safety is established.

3. PSW availability is not affected by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0006 Rev 0 Add MPL numbers to an existing safety-related sampling hood.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change is for documentation only.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change is for documentation only.

3. This document change does not affect the TS. The inclusion of MPL numbers is not a TS requirement. The margin of safety as defined in the basis for any TS is not reduced.

91-0010 Rev 0 Revise the PSW system P&ID to reconfigure PSW returns from MCR air-conditioner B008C and the shift supervisor's air-conditioner.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This modification increases the reliability of the PSW system by allowing continued operation of the shift supervisor's air-conditioner when the control room air-conditioner is removed from service. This PSW piping change has no adverse effect on reactor operations.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The original piping specifications are unchanged. Existing automatic isolation provisions will continue to maintain independence of the control room air-conditioner from the shift supervisor's air-conditioner.

3. PSW availability for the control room air-conditioner is not degraded by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0015 Rev 0 Revise the CS system P&ID to delete caps on vents and drains that are not being replaced since they are removed frequently and are in a high radiation area.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The caps deleted from the P&ID are on vents and drains with normally closed valves. Removing the pipe caps does not affect system operation or function. No other systems or documents are affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Removing the vent and drain line caps from the P&ID does not affect system function or operation.

3. TS limiting conditions for operation or surveillance requirements are not affected by this change. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

9 -0018 Rev 0 Revise the offgas system P&ID to add a reference to an existing note.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change is strictly editorial.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change is strictly editorial. System configuration and operation are not affected. No new modes of failure are introduced.

3. This change is strictly editorial. The TS are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0040 Rev 0 Revise the PSW system P&ID to show the supply of bearing lubrications and seal water to the PSW and RHRSW pumps via the seal/lubrication header.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The PSW and RHRSW pumps may be operated for extended periods without seal water or external bearing lubrication water. Therefore, loss of this supply will not cause or aggravate any accident.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification only increases the reliability of the PSW and RHRSW pumps.

3. PSW and RHRSW availability is not reduced by this modification. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0049 Rev 0 Revise the PSW P&IDs to correct interfaces between the Unit 1 and Unit 2 Plant cross-tie configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. PSW piping on the control room roof cannot cause or aggravate any accident or malfunction evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Environmental control for equipment important to safety is not affected by this change.

3. PSW limiting conditions for operation and surveillance requirements are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0055 Rev 0 Revise the RHR service water system P&ID to correct mislabeled MPL numbers.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a safety-related P&ID which does not affect system operation or function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is an editorial change which does not affect system operation or function.

3. This is an editorial drawing change. TS operating conditions and surveillance requirements are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0057 Rev 0 Revise the process radiation monitoring system P&ID to provide MPL number identification for existing equipment.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change and does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged; no new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might impact the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0078 Rev 0 Revise the PSW system P&ID to correct a typographical error associated with the setpoint value of a PSW component.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The typographical correction defines the setpoint of PSW Division I diesel generator differential pressure switch and Division II pressure switch to be the same. This documentation change improves operator-drawing interface.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change creates no new accident scenarios and introduces no new failure modes of operation.

3. The TS are not affected by this change. No safety limits or limiting conditions of operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0084 Rev 0 Revise the reheat system P&ID to show a tap connection and reference for the turbine low load auto-dump pressure switches.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This drawing change reflects the as-built condition of existing nonsafety-related equipment. The change does not affect PSW system function or operation.

2 The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0094 Rev 0 Revise moisture separator and reheater drain system P&ID to add an existing drain valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only. No safety-related system, equipment, accident scenario or analysis is affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a documentation change only. No new modes of failure are introduced.

3. No TS operational or surveillance requirements, or limiting conditions for operation for the moisture separator reheater drain system are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0143 Rev 0 Revise diesel generator 1B P&ID (H-11638) to correct zone cross-references resulting from a drafting error.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This documentation change of correcting the present drawing zone references to match the diesel generator P&ID cannot reduce emergency diesel generator availability or reliability.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is strictly a documentation change to correct a drafting error.

3. This is strictly a documentation change to correct a drafting error. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0153 Rev 0 Revise the nonsafety-related portion of the condensate storage and transfer system P&ID to change the normal operating position of the condensate transfer heater isolation valves serving the liquid radwaste system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Piping downstream of the condensate transfer heater isolation valves is separated from the liquid radwaste system by normally closed isolation valves and check valves. Changes in position of the valves will not result in overpressure of liquid radwaste system tanks. Check valves will prevent contamination of condensate transfer piping if condensate transfer pressure is lost during radwaste flushing operations.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The changes in the operating position of these valves cannot adversely affect liquid radwaste system operations. Liquid system flushing operations are conducted in accordance with the process control program.

3. The TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are being introduced. Radiological effluents are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0158 Rev 0 Revise the interruptable instrument air system P&ID to identify an existing valve in the instrument air line to the (TIP) drive mechanism.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change is to a non-safety related portion of the instrument air system P&ID. The instrument air supply is not essential for TIP system operation. This documentation change does not change the function or operation of the TIP drive mechanism.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This documentation change does not introduce any new accident scenarios or modes of failure.

3. No TS operating conditions or surveillance requirements are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0168 Rev 0 Revise the P&ID for the safety-related nitrogen inerting system to reflect a change to the pressure control station which supplies nitrogen to various safety-related systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The pressure control station for the nitrogen make-up system cannot cause an accident previously evaluated in the FSAR. Nitrogen make-up used to prevent hydrogen combustion post LOCA and nitrogen make-up for the drywell pneumatic system and reactor building is not affected. The redundant features and overpressure protection of the pressure control station are being maintained.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No changes are being made to any valves or instruments. Operation is unchanged.

3. TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are being introduced. The limiting conditions for operation for containment systems are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0194 Revise the radwaste system P&ID to show correct valve positions.
Rev 0

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change affects a portion of the radwaste system which is not in service during normal plant operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Showing the normal position of radwaste system valves on the system P&ID does not introduce any new failure modes.

3. No TS operating conditions or surveillance requirements are affected by this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0064 Rev 0 Revise the Unit 2 RWCU system P&ID to show a Yarway globe valve replaced by an equivalent Vogt globe valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement valve is equivalent to the original and does not affect the original design intent of the system. The nonsafety-related valve is in a sample line.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement valve is equivalent to the original and does not introduce any new failure modes.

3. No TS operating or surveillance requirements are affected. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0065 Rev 0 Revise the Unit 2 RWCU system P&ID to show a Yarway globe valve replaced by an equivalent Vogt globe valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The replacement valve is equivalent to the original and does not affect the original design intent of the system. The nonsafety-related valve is in a sample line.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The replacement valve is equivalent to the original and does not introduce any new failure modes.

3. No TS operating or surveillance requirements are affected. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0368 Rev 0 Revise the chilled water system P&ID to identify the circulating water pump vent valves as part of the configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The affected system is not safety related. The safety of the plant as analyzed in the FSAR is not impacted by the chilled water system vent valves.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification does not change the function or operation of any safety-related equipment. Physical, functional, and operational aspects of existing plant equipment are unchanged.

3. The identified vent valves have no impact on the TS; limiting conditions of operation are not exceeded. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0405 Rev 0 Add "dewatering & drying system" piping and associated resin tanks to the radwaste system (2G12) P&ID.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a nonsafety-related radwaste solidification system P&ID.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a documentation change only. The function and operation of the system are not affected. This change was previously approved and documented by DCRs 81-50 and 81-51.

3. This documentation change does not affect the TS or ETS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0479 Rev 0 Revise the condensate and feedwater bypass and drain P&ID to correct a drawing error.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only. No changes to plant systems or equipment which could affect the probability or consequences of any accident or malfunction are involved.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced.

3. No requirements for the condensate and feedwater system bypass and drain are included in the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0499 Rev 0 Revise the PSW system P&ID to identify the instrument root valves as part of the PSW system.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The root valves do not alter the operation of any plant equipment. Operationally, the PSW system is in agreement with the FSAR system description.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The root valves' primary function is instrument isolation. No existing system operation is changed by this modification. The PSW system configuration remains unchanged.

3. No limiting conditions of operation are exceeded. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0502 Rev 0 Revise the sampling system P&ID to show the valve position for existing valves as closed.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a P&ID on a safety-related system. This change agrees with plant site procedures. No accidents evaluated in the FSAR are impacted by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No equipment required to operate or function in the event of malfunction of safety equipment are affected by this change.

3. The equipment affected by this change is not addressed in the TS. The TS and ETS are not affected. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.

90-0508 Rev 0 Revise FPCC system P&ID to show an existing alarm and a correct associated reference location elevation in the notes section.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change which does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0509 Rev 0 Revise the condensate storage and transfer P&ID to add existing isolation valves and MPL numbers to existing pressure indicators.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The drawing change to illustrate and identify existing equipment does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to any parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0612 Rev 0 Revise the turbine building service water system P&ID to show existing isolation valves for the flow indicator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change for a nonsafety-related component which does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0623 Rev 0 Revise the neutron monitoring system IED to correct a typographical error.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial drawing change which does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes re being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0641 Rev 0 Revise electrical drawings to show existing IRMs being fed from panels 2R25-S015 and 2R25-S016.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Equipment and system function remain as previously evaluated and the operating conditions are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change does not create any new or unevaluated possibility of an accident or malfunction.

3. No logic, operating limit, or system function changes result from this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0645 Rev 0 Revise the control building service air system P&ID to show the test taps replaced by pipe plugs.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Test taps are no longer required. System and function are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might impac the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

90-0650 Rev 0 Delete fuse ratings for electrical panels 2R22-S017 and 2R43-P001C.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Equipment and system functions remain as previously evaluated and the operating conditions are unchanged.

2. This change does not create any new or unevaluated possibility of an accident or malfunction.

3. No logic, operating limit, or system function changes result from this change. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0005 Rev 0 Revise the FPCC system P&ID to add an MPL identifier to an existing strainer.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only. No changes to any systems or equipment result from this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced.

3. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0047 Rev 0 Revise the condensate and feedwater P&ID to show existing vents and drains.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. All the vents and drains added on the P&ID have normally closed valves and caps, and do not affect the condensate and feedwater system or any other system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced.

3. No TS system requirements are associated with this change. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0054 Rev 0 Assign an MPL number to a filter in the service air system on the radwaste system P&ID.

1. The identification of a service air filter cannot increase the probability of or increase the consequences of any accident or malfunction previously evaluated in the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This modification makes no physical change to the service air system.

3. This modification does not affect the availability of the affected system. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0058 Rev 0 Revise the fission product monitoring panel system P&ID to assign MPL numbers to existing plant equipment.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is an editorial change to a safety-related P&ID. The function and operation of the fission product monitoring system is not changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is an editorial change only. No new accident modes are introduced.

3. The TS operating limits or surveillance requirements are not affected. No environmental concerns are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0092 Rev 0 Revise the condensate and feedwater system P&ID to add detail and show existing piping configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The changes to the P&ID show the actual configuration. There are no changes to plant systems or equipment. No other systems or documents are affected. No change to system operation, performance, or original design intent are associated with this change. No accident analysis is impacted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced by this drawing revision.

3. No TS requirements for the condensate and feedwater system are associated with this change. No safety limits or failure points are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0101 Rev 0 Revise the radwaste system P&ID to correct orientation of the valve and filter in the air line to a hopper.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change shows the valve and filter as originally installed. Orientation of the valve and filter does not affect hopper operation. No other systems or documents are affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No systems or equipment are affected by this change; therefore, no new modes of failure are introduced.

3. No TS operational limits or surveillance requirements for the radwaste system are affected by this change. No safety limits or failure points are changed. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0109 Rev 0 Revise the reactor building PSW P&ID to relocate a reducer.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change is to a safety-related part of the PSW system; System operation, function, and design basis are unchanged. The TS surveillance testing at the ECCS pump auxiliary coolers assures ECCS operation will not be affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced by this change.

3. No TS operating limits and surveillance requirements are affected and no changes to the ETS are being incorporated. No safety limits or failure points are involved. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0110 Rev 0 Revise the radwaste system P&ID to provide each component a system identification number.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Providing radwaste system devices with unique system numbers does not affect system function or operation. All safety-related functions associated with this system are maintained within the system's FSAR analysis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Assigning system numbers creates no new accident scenarios and does not introduce any new failure modes.

3. The TS are not affected by this change. No safety limits or limiting conditions for operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0112 Rev 0 Revise stress isometric drawing for the minimum flow and venting line for PSW pumps to show the correct elevation of an existing support and section of piping.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a drawing change to the 2P41 system isometric. The function, operation, and design of the PSW system piping are not impacted by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No unacceptable pipe stress conditions are introduced. These isometric changes do not introduce any new modes of failure.

3. TS operating conditions and surveillance requirements are not affected. No environmental impacts are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0115 Rev 0 Revise the condensate demineralizer system P&ID to remove a vent valve and show a cap on the line.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This nonsafety-related change corrects the condensate demineralizer system P&ID to show actual plant conditions. The change does not affect system operation, function, or design.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new modes of failure are introduced by this P&ID change.

3. No TS operating conditions and surveillance requirements are being affected and no potential environmental impacts are being introduced. No safety limits or failure points are involved. No equipment which could impact the margin of safety in the TS is affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0120 Rev 0 Change the neutron monitoring system IED to correct zone location.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is strictly an editorial change. No changes are made to the design or operation of the neutron monitoring system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new failure modes are introduced.

3. No TS operating conditions and surveillance requirements are affected and no potential environmental impacts are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0152 Rev 0 Revise the safety-related P&ID for the RBCCW system. Change the 1/2-in. MEE pipe to 1/2-in. stainless-steel tubing in a relief valve exhaust.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The RBCCW system cannot cause accidents evaluated in the FSAR and is not required to operate following a LOCA and the affected portion of this system is isolated following a LOSP. Stainless-steel tubing installed in the relief valve exhaust will support overpressure protection of the cooling side of the RWCU pump coolers, as well as stainless-steel pipe. Overpressure of the RWCU pump covers will not affect reactor recirculating pump seal and motor cooling.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This short length of tubing is designated to direct moderate energy demineralized water to an atmospheric drain only. RWCU pump cooler failure will result in demineralizer water leakage in the RWCU system and chemical radwaste system only.

3. The TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are introduced. Limiting conditions for operation and surveillance of reactor recirculating pumps, primary containment isolation, and liquid waste treatment are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0162 Rev 0 Revise the fission products monitoring system and process radiation monitoring system P&IDs to remove flex line at gas sampler and add a note to indicate gas sampler is only installed during sampling. Correct valve symbols and change low flow alarm for off-gas vent sample flow from "spare" to actual configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The monitoring and control of effluent releases to the environment are not affected by these changes. Instrumentation controls, control valves, remote isolation valves and vacuum pumps are not affected by these changes. The capability of the radiation monitoring system to detect abnormal conditions is not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The existing annunciator, valve types, and equipment are being documented only. These will not increase the possibility of equipment malfunctions.

3. The TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are introduced. Radiation monitoring system availability and effluent releases are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0163 Rev 0 Revise the process radiation monitoring system P&ID to add a note and show a hard pipe connection in the fission products sample panel.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change to a safety-related system P&ID. The monitoring and control of effluent releases to the environment are not affected by this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This change documents existing conditions which agree with site procedures. No new modes of failure are introduced.

3. TS operating conditions and surveillance requirements are not affected. No potential ETS concerns are introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0169 Rev 0 Revise the P&ID for the safety-related nitrogen inerting system to reflect a change to the pressure control station which supplies nitrogen to various safety-related systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The pressure control station for the nitrogen make-up system cannot cause an accident previously evaluated in the FSAR. Nitrogen make-up used to prevent hydrogen combustion post LOCA and nitrogen make-up for the drywell pneumatic system and reactor building air is not affected. The redundant features and overpressure protection of the pressure control station are being maintained.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No changes are being made to any valves or instruments. Operation is unchanged.

3. TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are introduced. The limiting conditions for operation for containment systems are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0172 Rev 0 Revise snubber detail drawings so snubber tags, pipe clamp elevations, and mounting-plate details in the containment purge and inerting system agree with detail and isometric drawings.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The results of the pipe stress analysis for the containment purge and inerting system, as well as the capabilities of this system to control containment pressure, are not affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. These snubbers can only affect containment purge and inerting system pipe stress. Elevation changes are within tolerance and in the conservative direction.

3. Snubber surveillance requirements are not affected. No acceptance limits are increased, and no failure points are decreased. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0175 Rev 0 Revise the radioactive equipment and floor drain sump P&ID to identify a control room annunciation as Hi-Hi-Hi.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This is a documentation change only and will not impact safety as evaluated in the FSAR. No changes to the function or operation of any existing equipment result from this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This is a document change only. The addition of the information to the drawing create no new accident scenarios or introduce any new failure modes.

3. The TS are not affected. No safety limits or limiting conditions for operation are affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0176 Rev 0 Revise the RBCCW system P&ID to show existing header vent and drain valves, and the as-built piping configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The piping configuration change, and the illustration and identification of the header vent and drain valves do not affect system function or operation. The changes are enhancements to more accurately depict the as-built system configuration.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System function and operation are unchanged. No new failure modes or accident scenarios are introduced.

3. No changes are being made to parameters which might affect the TS. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0177 Rev 0 Add a note to the isometric drawing for the torus water cleanup system and revise the system P&ID to document the nonsafety-related 4-in. pipe upstream of valve 2G51-F008 as schedule 40 instead of schedule 80.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The design features assuring this portion of the system cannot be operated during normal plant operation are not changed. Design features assuring this portion of the system cannot be pressurized remotely during plant shutdown operations are not being changed. This portion of the piping will not increase the consequences of a malfunction in the radwaste system.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The operation of this portion of the system during plant shutdown will be under administrative controls.

3. TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are introduced. Radioactive effluent limits are not affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0178 Rev 0 Revise the noninterruptible instrument air P&ID to correct a duplication of MPL numbers.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. This change does not affect system function or operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No new failure modes or accident scenarios are created or introduced by this change.

3. This change does not affect any TS failure points, safety limits, operating conditions, and surveillance requirements. No potential environmental impacts are being introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0184 Rev 0 Revise the P&ID for the primary containment purge and inerting system by adding a note to confirm the containment isolation valves are installed to minimize seal leakage, and allow seal leakage testing for seat leakage in the direction assumed for in an accident.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. Containment atmosphere control is not affected. Neither the affected containment isolation valves nor their associated instrumentation are being changed. The as-installed orientation of these containment isolation valves does not contribute to leakage. The redundant features of the valve designs are not affected by this note.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. This note confirms correct mechanical installation features for the containment isolation valves. The possibility of undetected containment isolation valve seat leakage is not increased by this change.

3. TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are being introduced. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

91-0207 Rev 0 Change the location of a piping restraint, snubber, and hanger in the ADS.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The lines discharging main steam safety relief valve exhaust cannot cause a reactor accident. The applicable stress calculation has been revised to ensure the acceptability of the relocation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. System operation remains the same, and the pressure integrity of the system is not reduced.

3. No acceptance limits are being increased, and no failure points are being decreased. The availability of the ADS will not be affected. Therefore, the margin of safety as defined in the basis for any TS is not reduced.

9B-028
Rev 0

Provide in the FSAR an alternate mode of operation for the refueling floor ventilation system in which the hot water heating coil and heating units, provided to avoid wall condensation, are not routinely used.

1. In the case of a refueling accident and high radiation levels in the reactor building exhaust plenum, the refueling floor ventilation system is isolated and the SGTS is actuated so that the operation of the refueling floor ventilation system is not a factor in the consequences of that accident. The hot water heating coil and unit heaters are provided to temper outside air to avoid condensation on the walls, and whether or not they are used has no effect on the malfunction of any equipment important to safety.

2. Not using heating or humidity control on the refueling floor does not introduce any new failure modes or accident precursors, or alter any existing failure modes. The change does not affect any other systems or operations.

3. Removing heating or humidity control on the refueling floor does not affect any acceptance limits or failure points of any equipment important to safety or addressed in the basis for any TS.

F6C-002
Rev 0

Revise tables included in FHA Section 9.2 to list only doors subject to the surveillance requirements of FHA Appendix B. Delete doors that do not separate safety-related areas as is the criteria for Appendix B. Modify tables to include information that helps define the surveillance requirements applicable to specific doors.

1. This change has no impact on any previous evaluation of containment or prevention of fire in areas important to safety. The doors eliminated from the tables have no impact on areas important to safety.

2. Safety-related area door surveillances remain unchanged. No system designs have changed as a result of this surveillance modification.

3. The TS or the ETS are not affected.

F6C-003 Rev 0 Remove an erroneous reference in FHA Section 10.1 that states RHR valve 2E11-F065B is equipped with a handwheel.

1. This is an AOV with no manual handwheel. Existing procedures describe the manual manipulation of the valve if necessary.

2. No physical modification will be made. The absence of a handwheel (which would have no association with the air operator of the valve) will not contribute to the malfunction of the valve.

3. This change does not question the ability of personnel to close the valve manually. Existing procedures provide for this action. Existing design is unaffected by this change and safety evaluations exist for the current design.

F6C-004 Rev 0 Add fire detection zones to the FHA Appendix B fire door tables.

1. This change improves the defined scope of FHA Appendix B and has no impact on any previous evaluation of containment or prevention of fire in areas important to safety.

2. This change clarifies which surveillance procedures apply to fire doors listed in Appendix B. Safety-related area door surveillances remain unchanged. No system designs will be changed, and no equipment will be affected.

3. The TS or the ETS are not affected.

F6C-006 Rev 0 Change FHA Section 5.6 from: "Authorization by the Plant General Manager, upon recommendation of the plant fire protection staff, must be obtained prior to exceeding the maximum permissible fire loading." to: "Authorization by the manager - engineering support upon recommendation of the plant fire protection staff, must be obtained prior to exceeding the maximum permissible fire loading."

1. This change is administrative and provides consistency in the FHA since the manager - engineering support is already delegated responsibility for the Fire Protection Program by the FHA.

2. This change is administrative and has no effect on any plant design or system operation.

3. This change is administrative and has no impact on any safety limits, failure points, or acceptance limits.

9C-010 Rev 0

Change the statement that pressure-retaining components meet the requirements of a quality assurance control program which conforms to certain ASME requirements from "except there is no requirement for third party inspection" to "except that there was no requirement for third party inspection during plant construction."

1. This revision does not affect the present inspection and examination requirements for pressure-retaining components. Current ISI requirements are documented in FSAR Appendix H.

2. This change does not affect the present inspection and examination requirements for pressure-retaining components.

3. No safety limits or failure points are involved.

9C-018 Rev 0

Remove statement in the FSAR that primary containment purge and inerting system nitrogen supply relief valve 1T48-F035 prevents overpressurization of the primary containment.

1. Relief valve 1T48-F035 is located in the piping to the primary containment used for inerting. In the event of an accident, the primary containment isolation system isolates this line. The isolation valves are downstream of the relief valve, therefore, the relief valve will not be exposed to containment pressure. The valve, which will be isolated from any safety-related system, is not located in a safety-related portion of the system and provides no safety function.

2. This is a nonsafety-related valve located in a nonsafety-related portion of the primary containment purge and inerting system. It will not affect the containment isolation function or the post-accident nitrogen make-up function. It does not affect any equipment important to safety.

3. No safety limits or failure points are involved.

9C-023 Rev 0

Update FSAR SRLS table to reflect fuel reload 12 (Cycle 13), consisting of use of GE8x8NB fuel, core loading pattern of Cycle 13, and use of GEXL-Plus critical power correlation Duralife-230 control rods.

GE8x8NB (GE9) FUEL

1. The NRC has generically approved the use of this fuel design. These bundles were specifically evaluated for use in Hatch 1 in the safety evaluation of the Cycle 13 COLR, where the power distribution limits are defined. Analysis performed by GE, using methods approved by the NRC, determined that all 10 CFR 50.46 requirements are met. Power distribution limits are also derived using NRC approved methods.

2. No change in plant design or operation is involved, except the changes associated with the GE8x8NB fuel which have either been generically approved by the NRC or evaluated for Cycle 13 using NRC-approved codes and methods.

3. Reload licensing transient analyses performed for Cycle 13 explicitly account for the presence of GE9B-P8DWB315-8G4.0-80M-150-T in the core.

CORE LOADING PATTERN FOR CYCLE 13

1. Cycle 13-specific analyses reported in the SRLS show the conclusions reached in the FSAR for the initial core remain valid for the final Cycle 13 core loading, provided power distribution limits as defined in the COLR are not violated. The radiological consequences of an accident as evaluated in the FSAR remain bounding relative to plant operation with the Cycle 13 fuel mix and loading pattern.

2. No change in plant design is involved, except the changes associated with the core loading which were explicitly modeled in the reload transient analysis.

3. Reload transient analyses performed for the reference loading pattern of Cycle 13 show MCPR and overpressurization safety limits are conservatively protected under all transient conditions. Channel bow effects are accounted for during operation by using appropriate R-factors in determining the operating MCPR.

GEXL-PLUS CRITICAL POWER CORRELATION

1. GE has demonstrated GEXL-Plus accurately correlates bundle power and transition boiling for 8x8 fuel. The NRC reviewed GE's data and correlation, and agreed GEXL-Plus is accurate in predicting transition boiling for the types of fuel loaded in Cycle 13.

2. Use of GEXL-Plus in the process computer does not constitute a change in plant hardware, design, or configuration. The operation of the process computer is not a TS requirement for compliance to power distribution limits, nor is it intended to mitigate the consequences of an accident.

3. GEXL-Plus is a more accurate correlation of boiling transition as a function of bundle power for 8x8 fuel.

DURALIFE-230 CONTROL RODS

1. The blade is mechanically and neutronically equal to previous blade designs. The slightly higher cold rod worth of the D-230 blade has an insignificant effect on the CRDA.

2. The mechanical performance of the D-230 is equal to or better than previous types.

3. The D-230s do not adversely affect scram performance, and the uncertainty in determining rod worths for the shutdown margin demonstration is not increased. The slightly higher cold rod worth has an insignificant effect on the CRDA.

9D-009 Rev 0 Reflect in the FSAR the separation of the ISI and IST programs into independent documents. Reference the latest ISI and IST program submittal.

1. The separation of the ISI and IST program documents is entirely an editorial change.

2. The separation of the ISI and IST programs is entirely an editorial change.

3. This change does not impair the operability of any item or system required by the TS. No TS acceptance limits or failure points are affected.

9D-012 Rev 0 Document in the Unit 1 FSAR the completion of GPC's compliance with NRC IEB 79-14, which requires an evaluation of as-built safety-related piping systems.

1. Including the IEB 79-14 program in the FSAR is an administrative change. The completion of the program ensures any postulated cracks or breaks will not affect safety-related equipment or structures so the reactor could not be brought to and maintained in a safe shutdown condition.

2. This change is administrative, and completion of the IEB 79-14 program ensures safety-related equipment will function as originally analyzed.

3. Completion of the IEB 79-14 program ensures safety-related equipment will function and respond to accidents as originally analyzed. No acceptance limits or failure points are affected.

9D-013 Rev 0 Delete the word "minimum" from the FSAR description of the RRS valve closure time and add a reference to another section in which a footnote is also added to the maximum travel times in the SAFER/GESTR-LOCA analysis for the LPCI and RRS valves.

1. This change does not physically alter the RRS and does not impact valves as currently evaluated. Travel times are supported by the SAFER/GESTR-LOCA analysis referenced in the FSAR. Deleting "minimum" does not increase the probability of water hammer since this is not a fast acting valve.

2. This change only clarifies the references of the RRS discharge and LPCI valve closure times. No physical changes are involved.

3. The specific closure times added are justified by the SAFER/GESTR-LOCA analysis. The word "minimum" is deleted to provide consistency in two FSAR sections. There is no change to any component or system design, or in any acceptance limit or failure point.

9D-019 Rev 0 Add a table to the HNP-1 FSAR to include conformance to RG 1.97, Revision 2. Add drywell pressure to the Type A Category I variables list previously defined and approved, and add valve position indication for several containment isolation valves.

1. RG 1.97, Revision 2, describes instrumentation to assess conditions during and following an accident. These instruments are provided to monitor and aid in the mitigation of an accident and have no effect on the occurrence or consequences of an accident. This change documents regulatory compliance and has no physical effect on the instrumentation. The variable-type change and addition of containment isolation valve position indication improve the operators' ability to assess and monitor accident conditions as well as perform manual actions, and ensure regulatory recommendations are followed. There is no physical change to the plant.

2. The instrumentation to be added to the FSAR was reviewed and approved by the NRC. The variable-type change and the addition of containment isolation valve position indication improve the operators' ability to assess and monitor accident conditions as well as perform required manual actions, and ensure regulatory recommendations are followed.

3. This documentation change has no effect on systems addressed in the TS.

9D-030 MM-004 Revise the RWCU system P&ID to add an "A" to a valve number to clearly distinguish it from the "B" valve.

1. This is strictly an editorial document change. No plant systems, equipment, or original design information are affected

2. This is strictly an editorial document change.

3. No RWCU system requirements are included in the TS. No safety limits or failure points are affected.

10A-002 Rev 0 Revise the FSAR description of the auxiliary electrical power system to indicate breaker 135718 to the 1CD transformer is normally open.

1. Leaving this breaker in the open position decreases the probability of an accident or malfunction since one more operator error will have to occur to allow feeding a single 600V emergency bus from multiple 4kV buses. The power distribution system is not altered; only the position of a breaker feeding standby power to the emergency 600V buses is changed to the open position. The equipment lineup under normal operating conditions is unchanged.

2. This change adds an extra degree of safety to prevent parallel feeding of a 600V bus by two 4kV buses. No new power feeds are added and the system is unchanged.

3. No acceptance limits or failure points are changed.

10A-014 Rev 0 Update the FSAR to accurately describe the current operation and configuration of the drywell pneumatic system and the purge and inerting system. Indicate the nitrogen supply from the purge and inerting system is the normal mode of operation for the drywell pneumatic system and the compressors are no longer in service.

1. The likelihood of the rupture of either pneumatic header inside containment is not increased by changing the supply of motive gas. The supply of motive gas to the drywell pneumatic system during an accident remains unchanged. The emergency nitrogen supply from cylinders is not changed. The motive [illegible]ied by the purge and inerting system is the same [illegible]y and pressure as that supplied by the compressors.

2. The supply gas to safety-related components in the drywell pneumatic system will be identical, and the equipment will function identically.

3. This change will not impair the operability of any item or system required by the TS.

10A-024 Rev 0 — Revise the FSAR to indicate fuel pool cooling water conductivity is not routinely used, and alternately, the conductivity can be monitored by the use of laboratory samples.

1. The reliability of the FPCC system is not adversely affected by this change. There are no RG 1.25 chemistry restrictions on the fuel pool water. FPCC system function and reliability are maintained by use of this alternate methodology.

2. This change provides an alternate methodology for monitoring and determining operational requirements of the FPCC demineralizer; the proper function of the FPCC system and systems with which it interacts are not adversely affected. The methodology does not affect the function of any equipment. The alternate methodology of collecting and analyzing water samples is an established HNP activity.

3. No acceptance limit or failure point is affected.

10A-030 MM-002 — Revise the reactor building ventilation system P&ID to correct a mislabeled MPL identification number for a sample panel.

1. This is a purely editorial drawing change. Plant systems and equipment are not affected.

2. This is a purely editorial drawing change.

3. This is a purely editorial drawing change. The TS are not affected. No safety limits or failure points are affected.

10A-030 MM-008 Rev 0 — Revise the turbine building chilled water system P&ID to correct a mislabeled valve number.

1. This is strictly an editorial drawing change. No plant systems, equipment, or any other documentation are affected.

2. This is strictly an editorial drawing change. System operation and function are not affected.

3. The margin of safety as defined in the TS is not changed as a result of this editorial revision.

10A-030 MM-013 Rev 0 Revise the Unit 1 HPCI system P&ID to show proper orientation of the branch lines to the RHR heat exchangers.

1. This is a drawing change to the P&ID only. No operational or functional modification to the HPCI system is involved.

2. No other documents or equipment are affected by this change. No new failure modes are introduced.

3. TS operating conditions and surveillance requirements are not affected. No safety limits or failure points are involved.

10A-030 MM-021 Rev 0 Supersede duplicated information on two separate P&ID drawings. The condensate backwash system P&ID and a D-size format are superseded by sheet 4 of 7 of the (1G11) radwaste system P&ID.

1. This is a documentation change to a nonsafety-related system. No safety related equipment or documents are impacted.

2. No new accident modes are introduced by this change.

3. No safety limits or failure points are involved. TS operating limits and surveillance requirements are not affected.

10A-030 MM-028 Rev 0 Revise the post-accident sampling PASS P&ID to correct a duplication of valve MPL numbers.

1. This is an editorial change to correct a duplication of valve MPL numbers. System function or operation is not affected. The only physical change to the system is the switching out of the equipment tag numbers. No accident scenarios or safety-related equipment are affected.

2. This is strictly an editorial change; neither system operation or function is affected.

3. The TS operating conditions and surveillance requirements are not affected. No potential environmental impacts are introduced and no safety limits or failure points are involved.

10A-031 Rev 0 Revise the descriptions of the testing of certain safety-related components and systems to make them consistent with the current IST program.

1. These changes do not affect the operation of any safety-related component or overall system response to any accident scenario. All testing is performed in accordance with approved site testing procedures which ensures all TS and system safety parameters are complied with. Testing per the IST program will continue to ensure the operability of the individual components affected. The IST program utilizes techniques proven efficient in detecting component degradation, thus helping to maintain component operability.

2. None of the changes affect the operability of any component or system important to safety. The changes affect only the type of testing applicable to certain safety-related components, and do not alter the components, system design, or mode of operation.

3. Testing which satisfies the requirements of ASME Code Section XI enhances the ability to maintain the margin of safety.

10A-035 Rev 0 Clarify the test methods described in the FSAR for testing ESF instrumentation and control equipment in conformance with IEEE 279 by stating that, where practicable, testing is accomplished without disturbing the existing wiring or components, and the use of clip-leads is avoided.

1. This change is compatible with the intent of IEEE 279 and consistent with the GPC response to NRC Question 7.1.1.11 in the original HNP-1 FSAR. This change represents a clarification of existing methodology which is not changed.

2. This change only clarifies existing testing methodology.

3. This change only clarifies existing testing methodology. The failure point or acceptance limit for any system or component in the TS is not affected by this change.

9B-010 Rev 0

Change in the FSAR the method of manufacturers' testing of the safety-related prefilters, which are components within the SGTS and MCREC system safety-related filter units, to require prefilter testing in accordance with ASHRAE Standard 52-76.

1. The construction, operation, and performance of the prefilters will not change. Prefilter testing will conform to NRC RG 1.52. The revised testing standard will not degrade the quality of the prefilters. No credit is taken for the prefilters in reducing accident radiation doses.

2. The specification change revises the standard used to establish prefilter performance. The construction of the prefilters and their operation are not changed.

3. The prefilters are not addressed in the TS. Changing the test specification will have no effect on the SGTS or the MCRECS performance. No credit is taken for the prefilters in reducing onsite or offsite radiation doses.

9B-014 Rev 0

Remove specific numerical design criteria of the TSC HVAC system to clarify system requirements.

1. Neither the TSC HVAC system or its operation is being changed. This change is not safety related. This change in its FSAR description will have no effect on the function or malfunction of any equipment important to safety.

2. Neither the TSC HVAC system or its operation is changed.

3. No equipment or manner of operation is changed. This system is not safety related and is not addressed in the TS.

9B-018 Rev 0 — Revise test and inspection portion of the diesel generator cooling water system FSAR section to show "pressures and temperatures" rather than "flow rates and temperatures" are monitored.

1. Diesel generator coolant is monitored to assure heat exchangers, pumps, and valves are functioning properly. Monitoring pressure and temperature will accomplish this task as well as monitoring flow rate and temperature. Monitoring pressure and temperature versus flow rate and temperature in no way affects the performance, response, reliability or operation of the diesel generators.

2. This change does not affect the performance, response, reliability, or operation of the diesel generators.

3. This change does not affect the performance, response, reliability, or operation of the diesel generators.

F6C-005 Rev 0 — Remove the "ST" designation (indicating spot thermal detector) from the detection type column for SWGR RM 2E (diesel generator building) in FHA Section 9.2, Table 1.2-2.

1. This change is editorial and is not a deviation from original design. The detection system will continue to function as originally designed. There is no change to any previously evaluated impact on local equipment.

2. No functional modifications are being made. No design criteria are being modified.

3. No functional deviations are being made.

9C-007 Rev 0 — Modify the description of the nonconformance and corrective action programs in FSAR sections regarding quality assurance. Add the explanation that quality control inspection deficiencies are identified and dispositioned in accordance with approved procedures rather than a deficiency card.

1. These changes are administrative in nature and do not affect the operation or description of any plant system or component.

2. The changes are purely administrative in nature.

3. Only the description of the nonconformance and corrective action program, as defined in the FSAR, is affected. There is no change to any limiting condition for operation, surveillance requirement, trip setpoint, allowable value, limiting safety system setting, safety limit, or definition.

9C-016 Rev 0 Revise FSAR to reflect that County Road 451 lies within the Plant Hatch exclusion area as a result of the transfer of land by GPC to Appling County for road improvements; add the GPC Recreation Center to the site characteristics.

1. The deed transfer does not involve plant equipment, structures, or components.

2. There is no correlation between the deed transfer and the occurrence of an accident.

3. Plant structures, systems, and components are not involved in the deed transfer.

9C-019 Rev 0 Revise the FSAR radiological analysis summary of liquid process samples table to reflect the TS reactor coolant sampling and analysis requirements.

1. This change reflects the TS reactor coolant sampling and analysis requirements. No potential accidents are affected, and the sampling frequency is acceptable to maintain accident consequences within the limits as explained in the bases to the TS. Reducing the usage of the sampling system will reduce the probability of failure in that system. No equipment important to safety is affected.

2. This change reflects the TS reactor coolant sampling and analysis requirements. No potential accidents are affected, and the sampling frequency is acceptable to maintain accident probabilities within the limits as explained in the TS. No equipment important to safety is affected.

3. This change reflects the actual TS reactor coolant sampling and analysis requirements.

9C-022 Rev 0 Modify the FSAR to reflect the correct (normally open) position, as shown by the master single line drawing, for a safety-related breaker off of emergency 4kV bus 2F.

1. Leaving this breaker in the open position decreases the probability that an accident or malfunction will occur, since one more operator error will have to occur to allow feeding a single 600V emergency bus from multiple 4kV buses. The power distribution system is not altered; only the position of a breaker feeding standby power to the emergency 600V buses is changed to the open position. The power system will function as before when energized.

2. This change adds an extra degree of safety to prevent parallel feeding of a 600V bus by two 4kV buses. No power feeds are added or deleted; no equipment is added. The system continues to supply power as before.

3. No acceptance limits or failure points are changed.

9C-023 Rev 0

Update FSAR SRLS table to reflect fuel reload 8 (Cycle 9) consisting of the fuel loading configuration of the Cycle 9 core, increased operating flexibility (extended operating domain), and the use of GEXL-Plus critical power correlation.

FUEL LOADING CONFIGURATION OF THE CYCLE 9 CORE

1. Cycle 9-specific analyses reported in the SRLS show the conclusions reached in the FSAR for the initial core concerning the consequences of anticipated operational occurrences remain valid for final Cycle 9 core loading, as long as TS limits governing operating limits MCPRs are not violated.

2. There were no changes in plant design, except for minor changes in core loading which were explicitly modeled in the reload transient analysis.

3. Reload transient analyses based on a reference loading pattern for Cycle 9 show as long as the plant is operated in conformance with the Hatch 2 TS, MCPR and overpressurization safety limits will be conservatively protected under all transient conditions.

INCREASED OPERATING FLEXIBILITY (EXTENDED OPERATING DOMAIN)

1. NRC-approved codes and methods were used to determine the MCPR Operating Limit for operation in this domain. The GE analysis demonstrated the consequence of a transient while operating with feedwater temperature reduction and/or single-loop operation above the load line or past the nominal end of cycle will be less severe than operation without them. There are no plant design changes or changes in plant equipment associated with the use of either feedwater temperature reduction or single-loop operation.

2. There are no changes in plant design.

3. The analysis defined the appropriate MCPR operating limit for operation in this domain which will maintain the same MCPR safety limit.

GEXL-PLUS CRITICAL POWER CORRELATION

1. GE thoroughly analyzed an expanded 8x8 database to determine the appropriate (GEXL-Plus) correlation to account for factors that could affect the relationship between bundle power and transition boiling. The NRC reviewed GE's data and correlation and agreed GEXL-Plus accurately predicts boiling transition for the types of fuel loaded into Cycle 9.

2. Use of GEXL-Plus in the process computer is not a change in plant hardware design or configuration. The function of the process computer is not required for compliance with TS requirements or to mitigate the consequences of an accident.

3. GEXL-Plus is a more accurate correlation between bundle power and onset of boiling transition for 8x8 fuel designs.

9C-029 Rev 0 — Reflect, in the FSAR, organizational changes due to the incorporation of the SNC. Clarify the Vice President - Plant Hatch is an officer of both GPC and SNC. Update resumes of key plant management personnel. Revise quality assurance audit frequencies to reflect audit intervals specified in the TS. Revise the quality assurance section to reflect the reclassification of procurement levels from seven to four.

1. This change is administrative in nature and does not affect the operation or description of any plant system or component.

2. This change is purely administrative.

3. This change does not affect any limiting condition for operation, surveillance requirement, trip setpoint, allowable value, limiting safety system setting, safety limit, or definition.

9C-031 DOCR 88-28 Rev 0 — Revise the FSAR sections concerning the PRB to reflect current board operations and management titles. This safety evaluation was written to support changes to the ETS and is used by reference to support the FSAR change.

1. This change is to the ETS only. No design or operation change is involved.

2. This change is to the ETS only. No design or operation change is involved.

3. This administrative change affects only the ETS.

9C-031
DOCR
88-29
Rev 1

Revise FSAR sections concerning the PRB to reflect current board operations and management titles.

1. This change is administrative only and will not affect the operation or design of any system or component.

2. This change is administrative only and will not affect the operation or design of any system or component.

3. No changes are made to any safety limits, limiting safety system settings, limiting conditions for operation, surveillance requirements or definitions.

9D-004
Rev 0

Change the fuel pool water chemistry parameters to allow a wider range of pH values and add a maximum conductivity limit.

1. Conductivity and pH are not parameters of concern in RG 1.25 or in the fuel handling accident analyses. The revised limits are in accordance with industry standards for BWRs and are not a factor in analyses regarding performance of the fuel pool cooling and filtering system. This change will not adversely affect piping, pumps, or liner plates.

2. Changing the fuel pool water chemistry parameters does not add any condition to the plant outside the ranges of acceptable standards or previously analyzed conditions.

3. Changing water chemistry requirements has no effect on the TS requirement for the SFP water level or RG 1.25 requirements.

9D-022
Rev 0

Add table to HNP-2 FSAR to include conformance to RG 1.97, Rev. 2. Add valve position indication for several containment isolation valves.

1. RG 1.97, Revision 2, describes instrumentation to assess conditions during and following an accident. These instruments are provided to monitor and aid in the mitigation of an accident and have no effect on the occurrence or consequences of an accident. This change documents regulatory compliance and has no physical effect on the instrumentation. Adding containment isolation valve position indication improves the operators' ability to assess and monitor accident conditions, as well as perform manual actions, and ensures the regulatory recommendations are followed. There is no physical change to the plant.

2. There is no physical change to involved instruments. Added instrumentation has been approved by the NRC.

3. This documentation change has no effect on the TS.

9D-029 Rev 0 Revise the License Requalification Program in the Unit 2 FSAR and describe the current systems approach to training.

1. This change is administrative and does not affect the operation or description of any plant component or system. The revisions more accurately reflect the current Plant Hatch requalification program which was approved by the NRC.

2. This change is purely administrative and does not affect the operation or description of any system or component.

3. This change does not modify any limiting conditions for operation, surveillance requirements, trip setpoints, allowable values, limiting safety system settings, safety limits, or definitions.

9D-030 MM-001 Rev 0 Revise the condensate and feedwater system P&ID to correct a mislabeled MPL identification number.

1. This change corrects a drafting error and does not affect any plant system or equipment.

2. This change only corrects a drafting error.

3. No TS requirements are affected by this change. No safety limits or failure points are affected.

9D-033 Rev 0 Delete the Corporate Nuclear Security organization from the FSAR figure which shows the security organization for Plant Hatch.

1. This change is administrative and does not affect the operation or description of any plant component or system. SNC corporate security is no longer affiliated with Plant Hatch security; this change is a result of SNC formation which was reviewed and approved by the NRC.

2. This change is purely administrative and does not affect the operation or description of any system or component.

3. This change does not modify any limiting conditions for operation, surveillance requirements, trip setpoints, allowable values, limiting safety system settings, safety limits, or definitions.

10A-003 Rev 0 Revise the allowable repair time statements in the FSAR to be consistent with the TS.

1. All out-of-service times are within the limits specified by the TS. The NSOA was never a plant-unique document in the sense of specific equipment requirements. The NRC Standard TS (NUREG-0123) and NRC-issued plant-specific TS were developed subsequent to the NSOA stipulated component/system requirements.

2. All out-of-service times are within the limits specified by the TS. The NSOA was never a plant unique document in the sense of specific equipment requirements. The NRC Standard TS (NUREG-0123) and NRC-issued plant-specific TS were developed subsequent to the NSOA stipulated component/system requirements.

3. All out-of-service times are within TS limits.

10A-005 Rev 0 Revise FSAR methodology to utilize the built-in circuitry test capability of the main turbine backup overspeed trip system using a dedicated pushbutton and backlight.

1. This altered methodology will not result in a challenge to or affect the operation of any safety system or system assumed to respond in any previously evaluated accident, or involve any of the precursors to any previously evaluated accident.

2. The test circuitry has always been in the system design. No new components are being added.

3. No failure points are reduced or acceptance limits increased by this change.

10A-030 MM-011 Rev 0 Revise the turbine building condensate and feedwater bypass and drain system P&ID to remove a "B" designation from a valve identifier shown as "A&B."

1. This is an editorial drawing change only. No system or equipment is affected by this change.

2. This change is strictly editorial.

3. No TS operational or surveillance requirements are affected by this change.

10A-030 MM-012 Rev 0 Revise the SJAE P&ID to add a subscript to solenoid valve numbers to distinguish them from AOVs having the same numbers.

1. This is an editorial drawing change only. No plant operations, systems, or equipment are affected.

2. This is an editorial drawing change only.

3. No TS operational surveillance requirements are associated with this change.

10A-031 Rev 0 Revise the FSAR descriptions of the testing of certain safety-related components and systems to make them consistent with the current IST program.

1. These changes do not affect the operation of any safety-related components or overall system responses to any accident scenario. All testing is performed in accordance with approved site testing procedures. Testing per the IST Program ensures the operability of the individual components affected. The IST Program utilizes techniques proven efficient in detecting component degradation and thus, helps to maintain component operability.

2. This change does not affect the operability of any component or system important to safety. The change affects only the type of testing applicable to certain safety-related components.

3. Testing which satisfies the requirements of the ASME Section XI Code helps maintain the margin of safety.

10A-034 Rev 0 Revise the FSAR to indicate the fuel pool cooling water conductivity is not routinely used and alternately, the conductivity can be monitored by the use of laboratory samples.

1. By plant procedure the sampling frequency for conductivity monitoring is within the FPCC system demineralizer manufacturer's recommendations. The reliability of the FPCC system is not adversely affected by this change. There are no RG 1.25 chemistry restrictions on the fuel pool water. The function and reliability of the FPCC system is maintained by use of this alternate methodology.

2. This change provides an alternate methodology for monitoring and determining operational requirements of the FPCC demineralizer; the proper function of the FPCC system and systems with which it interacts are not adversely affected. The methodology does not affect the function of any equipment. The alternate methodology of collecting and analyzing water samples is an established HNP activity.

3. No acceptance limit or failure point is affected.

90-007
Rev 0

Determine how various flow rates affect the temperature and humidity in the HVAC system for the TSC.

1. The TSC is not a safety-related structure and does not affect any accident scenario previously evaluated in the FSAR.

2. Determining the effects of various flow rates on the TSC's temperature and humidity control system does not alter any of the accident scenarios previously evaluated in the FSAR.

3. Environmental control for the TSC is not addressed in the TS.

90-008
Rev 0

Perform radiation surveys to determine the changes in area dose rates for a given rate of hydrogen injection.

1. Fuel inspection and operating experience at sites using HWC have shown no detrimental effects of fuel and core operation, with the possible exception of an increase in cladding corrosion. The additional cladding corrosion does not violate assumptions made about fuel material properties and performance in analyses of transients and DBAs. The low amounts of hydrogen injected do not pose a concern with hydrogen embrittlement of the fuel clad or the structural materials in the affected systems. Hydrogen injection does increase area radiation levels and dose rates; however, the use of current plant radiation control practices ensures 10 CFR 20 limits are not exceeded.

   The increase in radiation levels requires the setpoints on the MSL radiation monitors be increased. This setpoint is used in mitigating the consequences of a CRDA, which is applicable at less than 20-percent power per the FSAR. This does not lead to any safety concern as the HWC system is operated only when power levels are greater than 30 percent. The slight increase in off-gas flow is not a concern as the increase is well within the system's design capacity.

   The possibility of hydrogen concentration in the off-gas system exceeding 5 percent while injection is in progress is minimized by injecting oxygen upstream from the recombiner. The oxygen concentration is manually maintained at 21 percent downstream of the recombiner. The system provides for automatic isolation of hydrogen should the oxygen levels fall below 5 percent and a system alarm should the oxygen concentration exceed 30 percent.

2. The installation of hydrogen and oxygen storage tanks and the associated transfer system pose no safety-related concerns as they are designed in accordance with the appropriate codes and standards and constructed in accordance with acceptable industry practices. All storage and gas handling equipment is located in areas where hydrogen- and oxygen-assisted fires cannot impact the operation of safety-related equipment.

3. The connection of piping and the storage of hydrogen and oxygen on site do not affect the operation of systems required by the TS. Changing the MSL radiation monitor setpoints is required due to the carryover of Nitrogen 16. The only DBA that takes credit for the setpoints is the CRDA, which is applicable at less than 20-percent power. Because termination of hydrogen injection is required when reactor power level decreases below 30 percent, the margin of safety is not reduced.

91-003 Rev 0

Determine the leakage past the inboard and outboard steam supply PCIVs 1E41-F002 and -F003 for the HPCI system by measuring the pressure increase, with respect to time, between the steam supply valves and turbine steam inlet/isolation valve 1E41-F001.

1. The HPCI system will be inoperable during the performance of this test; however, availability of the RCIC system ensures a continued source of high pressure feedwater makeup. The availability of the ADS provides a means for reactor depressurization, thereby allowing low pressure feedwater makeup systems to be used if needed. The design criteria of preventing peak clad temperatures of greater than 2200°F are satisfied for all postulated transients and accidents in the FSAR.

2. No permanent changes to the HPCI system or the other ECCSs are made by this test. Plant operation with the HPCI system in an inoperable status has been previously analyzed.

3. The bases for TS Section 3.5.D address normal system availability, as well as operation with inoperable components. This test is to be performed in accordance with the appropriate limiting conditions for operation and bases, and will not alter any acceptance limits or failure points.

91-004 Rev 0

Individually quantify the leakage past inboard and outboard steam supply PCIVs 1E41-F002 and -F003 for the HPCI system by measuring the pressure increase, with respect to time, between each of the steam supply valves and turbine steam inlet/isolation valve 1E41-F001.

1. The HPCI system will be inoperable during the performance of this test; however, availability of the RCIC system ensures a continued source of high pressure feedwater makeup. The availability of the ADS provides a means for reactor depressurization, thereby allowing low pressure feedwater makeup systems to be used if needed. The design criteria of preventing peak clad temperatures of greater then 2200°F are satisfied for all postulated transients and accidents in the FSAR.

2. No permanent changes to the HPCI system or the other ECCSs are made by this test. The operation of the plant with the HPCI system in an inoperable status has been previously analyzed.

3. The bases for TS Section 3.5.D address normal system availability, as well as operation with inoperable components. This test is to be performed in accordance with the appropriate limiting conditions for operation and bases, and does not alter any acceptance limits or failure points.

91-005 Rev 0

Independently determine the amount of feedwater passing through feedwater venturies 1C32-N001A and -N001B, using a chemical tracer (radioactive Sodium-24).

1. The conditions required for and created by this test are within the bounds of current analysis for plant operation and accident mitigation. Design changes required for this test were implemented and evaluated separately under DCR 91-031. The chemical tracer used for this test, sodium nitrate ($NaNO_3$), consists of ions which are normally found in the feedwater at Plant Hatch. The increase in the concentration of these ions in the feedwater poses no potential threats to the coolant chemistry and fuel cladding due to the small amounts of tracer injected. The increased concentrations are well within acceptable chemistry limits as described in the FSAR.

2. The small amounts of chemicals used in this test do not exceed any limiting values when the tracer and existing ions are combined. This ensures the bounds of current analysis remain valid.

3. All chemistry and conductivity limits remain within the bounds specified in the TS; therefore, the margin of safety is not reduced.

91-007
Rev 0

Perform radiation surveys to determine the changes in area dose rate for a given rate of hydrogen injection on one unit while maintaining a given rate of hydrogen injection on the other unit.

1. Fuel inspection and operating experience at sites using HWC have shown no detrimental effects of fuel and core operation, with the possible exception of an increase in cladding corrosion. The additional cladding corrosion does not violate assumptions made about fuel material properties and performance in analyses of transients and DBAs. The low amounts of hydrogen injected do not pose a concern with hydrogen embrittlement of the fuel clad or the structural materials in the affected systems. Hydrogen injection does increase the area radiation levels and dose rates, but the use of current plant radiation control practices ensures 10 CFR 20 limits are not exceeded. This test documents how well these limits are maintained with hydrogen injection occurring on both units.

   The increase in radiation levels requires that the setpoints on the MSL radiation monitors be increased. This setpoint is used in mitigating the consequences of a rod drop accident, which is applicable at less than 20-percent power per the FSAR. This does not lead to any safety concern, as the HWC stem is operated only when power levels are greater than 30 percent.

2. The installation of hydrogen and oxygen storage tanks and the associated transfer system poses no safety-related concerns as they are designed in accordance with appropriate codes and standards, and constructed in accordance with acceptable industry practices. All storage and gas handling equipment is located in areas where hydrogen- and oxygen-assisted fires cannot impact the operation of safety-related equipment.

3. The connection of piping and the storage of hydrogen and oxygen on site do not affect the operation of systems required by the TS. Changing the MSL radiation monitors setpoints is required due to the carryover of Nitrogen 16. The only DBA which takes credit for these setpoints is the CRDA, which is applicable at less than 20-percent power. Since the termination of hydrogen injection is required when reactor power level decreases below 30 percent, the margin of safety is not reduced.

91-009
Rev 0

Determine if the MCREC system can pressurize the MCR to 0.1 in. of water above the turbine building atmosphere using one air handling unit and one booster fan.

1. This test identifies whether single-failure protection is lost should two of three available trains fail to operate. Current plant procedures use two air handling units and one booster fan to pressurize the atmosphere of the MCR. The air handling units not used in this test are to be kept in an operable condition so if the operating unit should fail during the test, a redundant unit can be manually placed in service. Should an auto initiation signal occur, the affected equipment can be returned to the lineup required by current plant procedures. This assures system availability if needed.

2. The air handling units not used in this test are to be kept in an operable condition so that, if the operating unit should fail during the test, a redundant unit can be manually placed in service. Additionally, this test is not to be performed during the summer so the operating booster fan will provide relatively cool air until an air handling unit is placed in service. These precautions ensure minimum heating of the MCR should the operating air handling unit fail. No other systems or equipment necessary for the prevention or mitigation of accidents are affected by this test.

3. Adherence to the applicable TS is maintained.

91-005
Rev 0

Independently determine the amount of feedwater passing through feedwater venturies 2C32-N001A and -N001B using a chemical tracer (radioactive Sodium-24).

1. The conditions required for and created by this test are within the bounds of current analysis for plant operation and accident mitigation. Design changes required for this test were implemented and evaluated separately under DCR 91-031. The chemical tracer used for this test, sodium nitrate ($NaNO_3$), consists of ions which are normally found in the feedwater at Plant Hatch. The increase in the concentration of these ions in the feedwater poses no potential threats to the coolant chemistry and fuel cladding due to the small amounts of tracer injected. The increased concentrations are well within acceptable chemistry limits.

2. The small amounts of chemical used in this test do not exceed any limiting values when the tracer and existing ions are combined. This ensures the bounds of current analysis remain valid.

3. All chemistry and conductivity limits remain within the bounds specified in the TS.

91-006
Rev 0

Operate the zinc injection passivation system over a range of injection rates to determine the optimum level of injection for Plant Hatch.

1. The system is designed to inject zinc ions into the reactor via the feedwater so as to reduce the corrosion of stainless steel surfaces in the primary system. This is expected to reduce the radiation levels by minimizing the amount of cobalt deposition on these surfaces. GE has concluded from operating data and extensive laboratory testing that the presence of zinc in oxide films formed on piping and structural alloys in BWRs does not degrade the resistance to intragranular stress corrosion cracking and is not detrimental to reactor materials.

2. The function and operation of the condensate and feedwater system are not affected by this test. Analyses show no detrimental effects on fuel or reactor materials.

3. The presence of small amounts of zinc does not adversely influence reactor operating characteristics or variables and does not introduce new operating parameters which require monitoring. Therefore, the margin of safety is maintained.

91-007
Rev 0

Perform radiation surveys to determine the changes in area dose rate for a given rate of hydrogen injection on one unit while maintaining a given rate of hydrogen injection on the other unit.

1. Fuel inspection and operating experience at sites using HWC have shown no detrimental effects on fuel and core operation, with the possible exception of an increase in cladding corrosion. The additional cladding corrosion does not violate assumptions made about fuel material properties and performance in analyses of transients and DBAs. The low amounts of hydrogen injected do not pose a concern with hydrogen embrittlement of the fuel clad or the structural materials in the affected systems. Hydrogen injection increases the area radiation levels and dose rates, but the use of current plant radiation control practices ensures 10 CFR 20 limits are not exceeded. This test documents how well these limits are maintained with hydrogen injection occurring on both units.

   The increase in radiation levels requires that the setpoints on the MSL radiation monitors be increased. These setpoints are used in mitigating the consequences of a rod drop accident, which is applicable at less than 20-percent power per the FSAR. This does not lead to any safety concern as the HWC system is operated only when power levels are greater than 30 percent.

2. The installation of hydrogen and oxygen storage tanks and the associated transfer system poses no safety-related concerns, as they are designed in accordance with appropriate codes and standards and constructed in accordance with acceptable industry practices. All storage and gas handling equipment is located in areas where hydrogen- and oxygen-assisted fires cannot impact the operation of safety-related equipment.

3. The connection of piping and the storage of hydrogen and oxygen on site do not affect the operation of systems required by the TS. Changing the MSL radiation monitors setpoints is required due to the carryover of Nitrogen 16. The only DBA which takes credit for these setpoints is the CRDA, which is applicable at less than 20-percent power. Since the termination of hydrogen injection is required when reactor power level decreases below 30 percent, the margin of safety is not reduced.

DATA TABULATIONS AND UNIQUE REPORTING REQUIREMENTS

OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 1991

This section was compiled to satisfy the requirement of E. I. Hatch Unit 1 and Unit 2 TS Section 6.9.1.5 and assure compliance with the Code of Federal Regulations as set forth in pertinent sections of Title 10. Special attention was afforded to the methods prescribed by the Commission in RG 1.16 in order that the intent, as well as the letter of these laws, might be fulfilled with providing meaningful information as to the degree and circumstances of all exposure of personnel at this facility. An indication of the effectiveness of the plant radiation program may be inferred from the large number of individuals with no measurable exposure or minimal dose.

The time period covered by this tabulation extended from January 1, 1991, through December 31, 1991. All monitored personnel were included in the summary, as provided under 10 CFR 20.407.(a)(2). Individual exposures, as indicated by self-reading pocket ion chambers, were recorded daily with the use of an ALARA computer system. The exposures, along with the difference between these readings and the most restrictive exposure limit,were tabulated and printed in hard copy on a weekly basis,. The corresponding ion chamber results, as recorded on the disc dosimetry files, were supplanted by thermoluminescent dosimeter measurements made over a period of approximately 1 month as the data became available from a vendor.

Each person listed in the dosimetry disc files was assigned a usual job category based on his daily activities. The six job categories of this nature are identified in the following table. Running totals of dose acquired in each category were maintained for each person in his/her dosimetry file. Each dosimeter reading, in addition to being retained for individual exposure records, is added for individual exposure records and to the total representing the cumulative dose in the appropriate job category.

The implicit assumption involved in this method of accounting for exposure in different tasks is that all exposure acquired in job categories, other than the usual, will be documented by a radiation work permit. This circumstance should prevail in all significant cases.

Further delineation to the number of persons and amount of exposure of people in different job categories by various personnel categories is indicated by the standard reporting format of RG 1.16. Each personnel dosimetry disc file contains the personnel category information required to accomplish this. The individual running dose totals for each

job were used by the ALARA computer to compute the number of man-rem indicated in each group. Backup disc files were maintained for redundancy in the case of destruction or temporary inaccessibility suffered by the main files. Hard-copy records as printed by the ALARA computer were also maintained.

Through use of the ALARA computer system, dosimetry information was compiled, retained, and tabulated in such a manner as to satisfy the pertinent Federal Regulations and plant TS. The system was organized to provide this information in the format specified by these requirements and the suggestions of the RGs.

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LICENSE: DPR-57
LICENSE: NPF- 5

REGULATORY GUIDE 1.16 INFORMATION
END OF YEAR REPORT 1991

WORK & JOB FUNCTION	# PERSONNEL (>100 MREM) STATION	UTILITY	CONTRCT	TOTAL MAN-REM STATION	UTILITY	CONTRCT
Reactor Operations & Surveillance						
Maintenance & Construction	67	2	152	40.659	1.229	61.256
Operations	51	0	1	27.057	.043	.181
Health Physics & Lab	41	0	43	22.078	.091	17.314
Supervisory & Office Staff	29	0	7	10.947	.256	3.686
Engineering Staff	19	0	7	6.440	.095	4.442
Routine Plant Maintenance						
Maintenance & Construction	133	2	211	61.941	1.612	82.166
Operations	35	1	0	12.170	.941	.006
Health Physics & Lab	30	1	46	17.147	.129	25.150
Supervisory & Office Staff	13	0	8	6.464	.030	3.394
Engineering Staff	7	0	11	4.787	.141	5.557
Inservice Inspection						
Maintenance & Construction	23	1	284	10.477	.168	137.179
Operations	3	0	0	.507	0.000	.006
Health Physics & Lab	5	0	27	2.491	.002	11.696
Supervisory & Office Staff	2	0	2	.596	.011	1.384
Engineering Staff	3	0	9	.936	.122	3.095
Special Plant Maintenance						
Maintenance & Construction	117	3	493	72.100	1.439	243.318
Operations	27	1	1	14.606	.470	1.368
Health Physics & Lab	22	0	61	11.618	.081	35.572
Supervisory & Office Staff	13	2	12	2.999	.880	4.401
Engineering Staff	16	1	29	5.354	.216	17.393
Waste Processing						
Maintenance & Construction	20	0	93	9.239	.005	31.647
Operations	3	0	0	.988	0.000	.006
Health Physics & Lab	4	0	16	2.102	.002	7.626
Supervisory & Office Staff	0	0	1	.117	.011	1.066
Engineering Staff	0	0	1	.056	.014	.712
Refueling						
Maintenance & Construction	20	1	190	6.123	.168	87.532
Operations	7	0	1	2.473	0.000	.167
Health Physics & Lab	3	0	23	1.554	.002	6.807
Supervisory & Office Staff	1	0	3	.423	.011	1.580
Engineering Staff	1	0	7	.296	.014	2.934
Totals						
Maintenance & Construction	380	9	1423	200.539	4.622	643.099
Operations	126	2	3	57.801	1.454	1.734
Health Physics & Lab	105	1	216	56.989	.306	104.165
Supervisory & Office Staff	58	2	33	21.546	1.199	15.511
Engineering Staff	46	1	64	17.870	.602	34.133
Grand Totals	715	15	1739	354.745	8.183	798.642

TOTAL: 1161.570 ManRem

Summary of personnel monitoring ending Dec 31, 1991

GEORGIA POWER COMPANY - NUCLEAR GENERATION
PLANT E.I.HATCH
P.O.BOX 439,
BAXLEY, GA 31513

DPR-57
NPF- 5

Estimated whole body exposure range (rems)	Number of individuals in each range
No measurable exposure	1167
Measurable exposure less than 0.1	792
0.1 to 0.25	438
0.25 to 0.5	395
0.5 to 0.75	302
0.75 to 1.0	202
1.0 to 2.0	343
2.0 to 3.0	34
3.0 to 4.0	2
4.0 to 5.0	0
5.0 to 6.0	0
6.0 to 7.0	0
7.0 to 8.0	0
8.0 to 9.0	0
9.0 to 10.0	0
10.0 to 11.0	0
11.0 to 12.0	0
12 +	0

Total number of personel monitored = 3675

This report is submitted in accordance with paragraph (a)(2) of 10CFR20.407.

REACTOR COOLANT CHEMISTRY

Tabulations on a monthly basis of values of SJAE isotopics and reactor coolant parameters, as required by Section 4.6.F.1 of the Unit 1 TS, are found in the following tables. Unit 2 values are also shown, although it is not required they be reported. Isotopic values listed as "0" are less than the low-level density limit of the counting system.

Unit 1
1991
SJAE Isotopics
uCi/SEC

DATE 1991	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	6
Jan. 7	2436	7.15E0	1.17E2	3.09E3	2.58E1	2.24E2	8.59E1	3.54E3
Feb. 4	2436	8.61E0	8.30E1	2.27E3	1.66E1	1.50E2	5.76E1	2.59E3
Mar. 4	2436	6.65E0	1.07E2	2.93E3	2.15E1	1.92E2	7.43E1	3.33E3
Apr. 1	2436	8.16E0	8.41E1	2.33E3	1.65E1	1.55E2	6.14E1	2.66E3
May 6	2436	7.48E0	1.06E2	2.73E3	2.09E1	1.94E2	8.24E1	3.14E3
Jun. 5	2436	7.66E0	8.49E1	2.31E3	1.74E1	1.58E2	6.44E1	2.64E3
Jul. 1	2436	8.42E0	1.08E2	2.58E3	1.89E1	1.72E2	7.10E1	2.96E3
Aug. 5	2436	7.90E0	1.03E2	2.72E3	2.11E1	1.89E2	7.02E1	3.11E3
Sept.2	2436	5.43E0	8.29E1	2.10E3	1.72E1	1.45E2	6.12E1	2.41E3
Oct. 1	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0/00E0	0.00E0
Nov. 4	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Dec. 9	2436	3.27E0	5.02E1	1.74E3	8.64E0	9.17E1	2.86E1	1.92E3

REACTOR CHEMISTRY

		IODINES uCi/ml					
DATE 1991	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan. 7	2436	5.68E-5	1.69E-3	6.26E-4	7.21E-3	1.64E-3	5.46E-4
Feb. 4	2436	3.17E-5	1.50E-3	6.24E-4	6.38E-3	1.70E-3	5.05E-4
Mar. 4	2436	3.33E-5	1.61E-3	7.03E-4	7.50E-3	1.95E-3	5.71E-4
Apr. 1	2436	3.32E-5	1.91E-3	7.15E-4	8.05E-3	1.79E-3	5.81E-4
May 6	2436	3.28E-5	1.50E-3	5.60E-4	6.78E-3	1.57E-3	4.84E-4
Jun. 5	2436	3.22E-5	1.24E-3	5.19E-4	4.70E-3	1.33E-3	4.08E-4
Jul. 1	2436	3.45E-5	1.32E-3	5.21E-4	5.53E-3	1.35E-3	4.29E-4
Aug. 5	2436	3.38E-5	1.63E-3	5.08E-4	5.67E-3	1.35E-3	4.39E-4
Sept.2	2436	1.63E-5	1.60E-3	4.75E-4	5.96E-3	1.39E-3	4.19E-4
Oct. 1	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Nov. 4	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Dec. 9	2430	1.63E-5	8.52E-4	2.92E-4	2.91E-3	8.94E-4	2.50E-4

Unit 2
1991
SJAE Isotopics
uCi/SEC

DATE 1991	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	6
Jan. 8	2430	2.98E0	4.48E1	1.12E3	1.17E1	8.05E1	2.92E1	1.29E3
Feb. 5	2436	3.50E0	5.44E1	1.33E3	1.30E1	8.92E1	4.41E1	1.54E3
Mar. 5	2392	9.68E-1	1.41E1	3.92E2	3.50E0	2.65E1	9.40E0	4.46E2
Apr. 2	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
May 7	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Jun. 11	2436	1.14E0	1.55E1	4.60E2	4.64E0	3.29E1	1.38E1	5.28E2
Jul. 2	2436	1.25E0	2.06E1	5.45E2	4.20E0	3.53E1	2.15E1	6.27E2
Aug. 6	2436	1.02E0	1.81E1	4.39E2	3.78E0	2.83E1	1.34E1	5.03E2
Sept.3	2436	1.40E0	1.97E1	4.70E2	4.09E0	3.58E1	1.34E1	5.44E2
Oct. 1	2436	1.59E0	2.10E1	5.00E2	5.84E0	3.84E1	1.45E1	5.81E2
Nov. 5	2436	7.58E2	1.21E3	5.00E3	1.65E2	7.04E2	5.20E2	8.36E3
Dec. 3	2436	3.02E2	1.08E3	5.93E3	2.41E2	9.72E2	7.97E2	9.33E3

REACTOR CHEMISTRY

		IODINES uCi/ml					
DATE 1991	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan. 8	2430	3.15E-6	1.55E-4	5.59E-5	5.07E-4	1.55E-4	4.54E-5
Feb. 5	2436	9.40E-6	6.74E-4	2.01E-4	2.27E-3	5.81E-4	1.75E-4
Mar. 5	2392	1.25E-5	5.86E-4	1.39E-4	2.30E-3	6.44E-4	1.64E-4
Apr. 2	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
May 7	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Jun. 11	2436	0.00E0	3.24E-4	1.41E-4	1.07E-3	3.51E-4	9.73E-5
Jul. 2	2436	6.02E-6	3.04E-4	1.08E-4	9.75E-4	2.89E-4	8.69E-5
Aug. 6	2436	3.68E-6	2.86E-4	9.46E-5	8.49E-4	2.40E-4	7.40E-5
Sept.3	2436	0.00E0	2.47E-4	8.03E-5	8.37E-4	2.04E-4	6.18E-5
Oct. 1	2436	3.61E-6	2.11E-4	7.55E-5	7.32E-4	2.15E-4	6.20E-5
Nov. 5	2436	8.70E-6	3.00E-4	1.09E-4	1.13E-3	3.16E-4	9.45E-5
Dec. 3	2436	3.30E-5	3.76E-4	1.38E-4	1.43E-3	3.09E-4	1.34E-4