Georgia Power Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 877-7279

J. T. Beckham, Jr.
Vice President - Nuclear
Hatch Project

Georgia Power
the southern electric system

February 18, 1993

Docket Nos. 50-321
50-366

HL-3143
004812

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant
Annual Operating Report for 1992

Gentlemen:

Enclosed is the 1992 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.

Sincerely,

J. T. Beckham, Jr.

OCV/cr

Enclosure: 1992 Annual Operating Report for Plant Hatch Units 1 and 2

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

010014

JE14 1/1

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
1992

EDWIN I. HATCH NUCLEAR PLANT - UNITS 1 AND 2
ANNUAL OPERATING REPORT
1992

TABLE OF CONTENTS

GLOSSARY

ACRONYMS AND ABBREVIATIONS

ABN	as-built notice
A/C	air conditioning
AC	alternating current
ADS	automatic depressurization system
AHU	air handling unit
A/E	architect/engineer
ALARA	as low as reasonably achievable
APRM	average power range monitor
ATTS	analog transmitter trip system
ATWS	anticipated transient without scram
ANSI	American National Standards Institute
AOV	air-operated valve
ASME	American Society of Mechanical Engineers
BOP	balance of plant
BWR	boiling water reactor
BWROG	Boiling Water Reactor Owners Group
CAD	containment atmosphere dilution
CAV	crack arrest verification
CFR	Code of Federal Regulations
CPIS	containment purge and inerting system
CRD	control rod drive
CRDA	control rod drop accident
CS	core spray
CST	condensate storage tank
DBA	design basis accident
DBE	design basis earthquake
DC	direct current
DCR	design change request
ECCS	emergency core cooling system
EQ	environmental qualification
FHA	fire hazards analysis
FSAR	final safety analysis report
GDC	general design criterion
GE	General Electric
GPC	Georgia Power Company

HELB	high energy line break
HNP	hatch nuclear plant
HPCI	high pressure coolant injection
HVAC	heating, ventilation, and air-conditioning
HWC	hydrogen water chemistry
I&C	instrumenation and control
IE	inspection and enforcement
IGSCC	intergranular stress corrosion cracking
ILRT	integrated leak rate test
ISI	inservice inspection
IST	inservice testing
LAR	licensing action request
LCO	limiting condition for operation
LDS	leak detection system
LED	light emitting diode
LLRT	local leak rate test
LLS	low-low set
LOCA	loss of coolant accident
LOSP	loss of offsite power
LPCI	low pressure coolant injection
LPRM	local power range monitor
MCC	motor control center
MCPR	minimum critical power ratio
MCR	main control room
MCRECS	main control room environmental control system
MG	motor generator
MOV	motor-operated valve
MPL	master parts list
MSL	main steam line
MSIV	main steam isolation valve
NPSH	net positive suction head
NRC	Nuclear Regulatory Commission
NSSS	nuclear steam supply system
PASS	post accident sampling system
PCIS	primary containment isolation system
PCIV	primary containment isolation valve
PCRS	process computer replacement system
P&ID	piping and instrumentation diagram
PRB	Plant Review Board
PSW	plant service water
QA	quality assurance

RBCCW	reactor building closed cooling water
RBM	rod block monitor
RCIC	reactor core isolation cooling
RFPT	reactor feed pump turbine
RHR	residual heat removal
RHRSW	residual heat removal service water
RPS	reactor protection system
RPV	reactor pressure vessel
RRS	reactor recirculation system
RWC	reactor water cleanup
RWCS	reactor water cleanup system
RWE	rod withdrawal error
RWM	rod worth minimizer
SBGT	standby gas treatment
SBLC	standby liquid control
SDV	scram discharge volume
SJAE	steam jet air ejector
SLCS	standby liquid control system
SNC	Southern Nuclear Operating Company
SPDS	safety parameter display system
SRV	safety relief valve
SW	service water
TBCCWS	turbine building closed cooling water system
TCV	turbine control valve
THV	torus hardened vent
TIP	traversing incore probe
TOL	thermal overload
TSV	turbine stop valve

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 1992 were 741 net MWe for Unit 1 and 765 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 1992

Unit 1

Date	Valves
08/27/92	1B21-F013A, B, C, F, G, H Scram occurred; pressure controlled by manually opening the B SRV which armed LLS and opened SRVs H, A, G, and C. The B SRV was closed approximately 3 seconds later and the LLS valves controlled pressure. The F SRV opened and closed concurrently with the B SRV.*

Unit 2

No SRV challenges occurred this year.

* This event is described in License Event Report 50-321/1992-021 submitted on September 25, 1992.

SAFETY EVALUATIONS FOR ALL SAFETY-RELATED DESIGN CHANGES, NONSAFETY-RELATED DESIGN CHANGES, AS-BUILT NOTICES, AND OTHER ACTIVITIES RESULTING IN FSAR/FHA UPDATES IN 1992

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 1992. 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 Technical Specifications is reduced.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

85-102 Rev 0 — Modify the existing 8 hour battery emergency lighting and install additional units in order to comply with Appendix R 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, because the modifications upgrade the plant safety per Appendix R requirements.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes upgrade the plant safety by providing additional lighting units needed in an event of loss of power.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the margin of safety as defined in the basis for Technical Specifications is not affected by the electrical or civil work involved in the modifications.

86-022 Rev 0 — Replace control rod assemblies with GE's modified "Duralife" control rod assemblies.

1. The 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 the modified control rods meet the original design intent of the existing control rods.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR does not result from this change because the structural margin, scram performance, reactivity worth and envelope dimensions of the control rods are unchanged.

3. The margin of safety as defined in the basis for Technical Specifications is not reduced because all criteria as evaluated in the Technical Specifications are unchanged.

88-206 Rev 0 — Provide more accurate high reactor water level indication during cold shutdown and reactor transients. Replace transmitters, an indicator, and a converter. Install instrument tubing, conduit, cable, and supports. This change requires a revision to 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, because the instruments and hardware provided perform no active safety function and are installed so that no adverse interaction with existing safety-related equipment can occur.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since no new safety function is performed by this equipment. Only greater accuracy is obtained in indication. The instruments, cable, and conduit are installed in accordance with applicable seismic, separation, and environmental criteria.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since this instrumentation is not included in the bases for Technical Specifications, and no limits which are included in the Technical Specification bases are affected by this modification.

88-303 Rev 0 Provide the design and location of a permanent cryogenic storage facility, underground piping, conduit, and isolation valve skids common for both units at Plant Hatch. This change to add a permanent hydrogen water chemistry (HWC) system requires a revision to 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, because an accident concerning the failure or rupture of the existing hydrogen bottle for the generator has been evaluated in Chapter 14 for Unit 1 and Chapter 15 for Unit 2 to not adversely affect any safety-related equipment. A mishap with any hydrogen, oxygen, or nitrogen facilities does not adversely affect 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. Although the consequences of rupture of an oxygen tank have not been previously evaluated in the FSAR, tank location complies with the separation criteria established in the EPRI Guidelines for permanent BWR HWC installations. The failure of the hydrogen, oxygen, or nitrogen tanks are of no consequence, since the failures do not adversely affect any safety-related equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced. Although this change does not affect any equipment defined in the Technical Specifications, it meets the criteria set forth by EPRI. No acceptance limits are increased, and no failure points are decreased.

88-304 Rev 0 Provide design for the Unit 1 permanent HWC system that interfaces with the DCR 88-303 design and addresses the operation and use of the injection equipment. This change requires a revision to 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, because an accident concerning the failure or rupture of the existing hydrogen bottle for the generator as evaluated in Chapter 14 does not adversely affect any safety-related equipment. A mishap with any hydrogen, oxygen, or nitrogen facility does not adversely affect any safety-related equipment. The use of the HWC system does not lead to any safety concerns related to fuel and core operations or to BWR plant structural materials.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Although the consequences of rupture of an oxygen tank have not been previously evaluated in the FSAR, tank location complies with the separation criteria established in the EPRI Guidelines for permanent BWR HWC installations. The failure of the hydrogen, oxygen, or nitrogen tanks does not adversely affect any safety-related equipment. The use of the HWC system does not lead to any safety concerns related to a LOCA in the containment. Explosive mixtures cannot be obtained with an inerted containment. Although this change increases radiation levels inside and outside the plant structures, the maximum worker exposure is well within the current 10 CFR 20 limits.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the HWC system is shut down at less than 30 percent reactor power. The Technical Specifications currently address the use of HWC and radiation monitor setpoint changes. No other parameter or setpoint discussed in the Technical Specifications is affected by this change.

89-129 Rev 0

Add a two-out-of-three pressure switch logic for the RFPT trip circuit on low suction pressure. Add control room annunciators for RFPT 1A and 1B, and condensate booster pump suction pressure low. Provide auto start circuitry on low RFPT suction pressure for standby condensate booster pump. Stagger time delays in trip circuits for reactor feed pumps and condensate booster pumps on detection of low suction pressure. Provide auto start circuitry on low condensate booster pump suction pressure for the standby condensate pump. This change requires a revision to 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, because this change reduces the probability of a low reactor level scram by making the trip of the feed pumps less likely. Other occurrences evaluated in the FSAR are not affected. This modification improves the performance of the feedwater system and reduces the probability of feedwater loss.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change does not alter or adversely affect any safety-related equipment or any equipment required to support the operation of safety-related equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the condensate and feedwater system is not addressed in the Technical Specifications. This modification reduces the probability of challenging the RPS due to a low RPV water level initiated by a feed pump trip. No failure points or acceptance limits of any equipment are altered by this change.

89-170 Rev 0

Provide a water treatment system to control biological fouling, corrosion, and silt deposition in the service water systems, including RHRSW and PSW systems of Units 1 and 2, by injecting a mixture of diluted sodium hypochlorite and sodium bromide into the intake structure forebays. Provide a water treatment system to control biological fouling of the circulating water systems of Units 1 and 2 by injecting diluted sodium hypochlorite to each circulating water pump forebay. This change requires a revision to 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, because this modification meets the requirements of existing design bases. No safety-related equipment 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, since this change does not modify the intended design function of any components or equipment important to safety. This modification enhances the performance of safety-related systems/heat exchangers served by the service water systems.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the water treatment system is nonsafety related and is not addressed in the Technical Specifications. This modification does not have any adverse impact on the original design intent.

<u>89-243</u> Rev 0 Add additional air handling units to MG set rooms A and B to decrease high ambient 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, because this design enables lower ambient temperatures to be maintained in the MG set rooms. No effects to safety-related equipment failures are introduced.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the design of the new equipment meets the existing design criteria. This change incorporates equivalent equipment features as compared to the existing system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change only increases cooling capacity in the MG set rooms to lower ambient room temperatures. It does not decrease any failure point or increase any acceptance limit of Technical Specifications required equipment.

89-252 Rev 0 Provide guidance and procedures for the selection and approval of replacement fuses for Class 1E safety related and non-Class 1E fuses outside the MCR.

1. The 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 the replacement fuses provide equivalent or better circuit/equipment protection and enhance system reliability. The replacement fuses are qualified to the applicable harsh environments.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the design, function, and response of systems associated with these fuses are not affected by this design change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not address fuse ratings or types. System function is not changed.

89-261 Rev 0 Replace existing emergency diesel generator batteries 1A and 1C with new higher capacity batteries and battery racks. Replace associated battery cables from the battery fuse boxes to the battery terminal plates. This change requires a revision to 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, because the new batteries and associated racks do not affect the function, operation, or response of any system required to mitigate any accidents.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the new batteries, racks, and cables meet all applicable seismic and environmental qualification requirements. Battery function is unchanged. The design change does not introduce any new modes of failure.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new batteries are of higher ampere-hour capacity and supply a given load for a longer period of time than the existing batteries.

89-264 Rev 0 Replace the existing 1B diesel generator battery chargers for battery 1R42-S002B. Add an alarm selector switch and nonsafety-related test receptacle. This change requires a revision to 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, because the replacement battery chargers are more reliable than the existing units and are functionally and operationally equivalent to the existing units. The replacement chargers meet all standards and codes for Class 1E service at Plant Hatch.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the replacement battery chargers are functionally and operationally equivalent to the existing chargers. No engineered safety feature response is changed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new battery chargers meet Technical Specifications requirements and do not change any acceptance or safety limits. No failure points are decreased, and no acceptance limits are increased.

90-043 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, because 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 showing 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, since 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. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety limits or setpoints of any safety equipment are affected. The Technical Specifications are unaffected.

<u>90-061</u> Rev 0 Add a temporary active General Electric Zinc Injection Passivation (GEZIP) system to the HNP-1 feedwater system to control radiation buildup within the reactor coolant pressure boundary.

1. The 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 system operation and safety limits are not affected by the addition of a temporary active GEZIP system. No adverse effect to any equipment important to safety is pustulated due to this temporary design change.

2. The possibility of an accident or malfunction of a differant type than any evaluated previously in the FSAR is not created, since the condensate and feedwater system function and operation remains the same by the addition of a temporary active GEZIP system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since there are no safety requirements introduced or changed due to this temporary modification. Zinc does not influence the reactor operating characteristics or operating variables.

90-180 Rev 0 Remove existing recirculation system loop select piping and associated electrical components. This piping was no longer needed upon removal of the LPCI loop select logic. Leave enough piping to provide injection points for future decontamination programs. Revise FSAR figure 4.3-2 and table 7.3-1.

1. The 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 this modification meets the design, material, and construction standards applicable to a safety-related component. No accident precursors are affected. Actions assumed to occur in previously analyzed accidents are not altered, degraded, or prevented.

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

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not introduce failure criteria, decrease any failure points, or change any acceptance limits. All design bases are unaffected.

90-194 Rev 0 Replace PSW pump motor P4I-C001D.

1. The 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 the function or operation of the PSW system under normal or accident conditions is unchanged. All existing accident and transient analyses remain unchanged. The PSW system continues to function and meet the same design standards as before.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the PSW system is functionally and structurally unaffected. No new types or functions of equipment are added. Interferences are reinstalled to meet the original design requirements.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the PSW system and all interferences meet the original design specifications. Safety functions are not degraded due to this modification. System pressure boundaries and function are unaffected.

90-256 Rev 0 Provide a permanent storage rack for the transfer canal seal backup nitrogen bottles on elevation 228 ft 0 in. of the Unit 1 reactor building refueling floor. Add a missile shield to mitigate the effects of a possible projectile resulting from a broken bottle valve stem.

1. The 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 the new bottle rack provides Seismic II/I protection and does not perform any safety-related function. The addition of the bottle rack does not affect the operation of equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the bottle rack does not make any physical contact with operational components in the local area. No changes to the operation of any equipment is made.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new rack supports the nitrogen bottles and prevents them from damaging components in the vicinity.

91-013 Rev 0 Modify the Unit 1 RHRSW pump/motor bearing oil drain 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, because the change meets the design, material, and construction standards applicable to a safety-related component. None of the accident precursors are affected by the change. The malfunction of the pipe/valve sample and drain assembly could only impact the RHRSW system by a loss of a pump motor which has been evaluated in the FSAR.

An evaluation of the potential impact to the seismic qualification of the affected motors determined that the motors' seismic integrity is not adversely affected by the addition of the oil reservoir drains and piping, and subject drain valves and piping are not adversely affected by seismic loads. The modifications do not change the response or increase the impact of a malfunction of safety-related components. System function and operation are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. System function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR; only pump/motor failure is included.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the safety design bases for the RHRSW system are not altered by the change. The system still provides cooling water for the required loads. No significant failure points are introduced; no acceptance limits are altered.

<u>91-015</u> Modify the Unit 1 RHR pump/motor bearing oil drain configurations.
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, because the change meets the design, material, and construction standards applicable to a safety-related component. None of the accident precursors are affected by the change. The malfunction of the pipe/valve sample and drain assembly could only impact the RHR system by a loss of a pump motor which has been evaluated in the FSAR. An evaluation of the potential impact to the seismic qualification of the affected motors determined that the motors' seismic integrity is not adversely affected by the addition of the oil reservoir drains and piping, and the subject drain valves and piping are not adversely affected by seismic loads. An evaluation of the potential impact to the environmental qualification of the RHR pump/motor determined that the nonmetallic materials used in the pressure boundary would remain serviceable at the operating and accident temperature and radiation levels for the RHR diagonal. These changes do not change the response or increase the impact of a malfunction of safety-related components. System function and operation are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. System function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR; only pump/motor failure is included.

3. The margin of safety as defined in the bases for Specifications is not reduced, since the system is not significantly altered due to the addition of the sample/drain valve on the pump motors. The addition is a negligible contributor to a pump/motor failure. No significant failure points are introduced; no acceptance limits are altered.

91-017 Modify the Unit 1 CS pump/motor bearing oil drain configurations.
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, because the change meets the design, material and construction standards applicable to a safety related component. None of the accident precursors are affected by the change. The malfunction of the pipe/valve sample and drain assembly could only impact the CS system by a loss of a pump motor which has been evaluated in the FSAR. An evaluation determined that the subject motors' seismic integrity is not adversely affected by the changes, and the subject drain valves and piping are not adversely affected by seismic loads. An evaluation of the potential impact to the environmental qualification of the CS pump/motor determined that the nonmetallic materials used in the pressure boundary would remain serviceable at the operating and accident temperature and radiation levels for the RHR diagonal. These changes do not alter the response or increase the impact of a malfunction of safety-related components. System function and operation are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. System function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR; only pump/motor failure is included.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since addition of the sample/drain valve on the pump/motors is a negligible contributor to pump/motor failure. No significant failure points are introduced and no acceptance limits are altered.

91-095 Rev 0 Repair welds in the RRS and RHR system to insure structural integrity to the systems. Both systems are safety related.

1. The 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 the overlays adhere to the design, material, and construction standards applicable to the systems. Overall system performance is not affected by the changes. No new system interfaces are introduced. No system is operated outside its design or testing limits. The modification does not change, degrade, or prevent actions described or assumed in an accident discussed in the FSAR. No structure, system, or component reliability is degraded by the installation of overlays. The change does not increase the radiological consequences of a malfunction of equipment important to safety. The consequences of weld failure are unchanged as a result of the overlays.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since current analyses are valid. The possibility of a malfunction of equipment important to safety due to failure of the weld overlays is not different from the existing possibilities.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety requirements are introduced or changed due to the modification. No allowable limits or failure points of any component or system are affected by the change.

91-104 Rev 1 Install logic to control isolation of PSW system valves 1P41-F123 A and B.

1. The 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 no previously evaluated accident scenarios are affected. The change is designed to isolate the PSW to the On Shift Operation Supervisor office area condensing unit upon a high flow condition resulting from a postulated line break during a seismic event. The change improves the operability of the subject equipment. The consequences of a malfunction of safety-related equipment are not increased because the valves close upon loss of power, and the associated flow switches close upon a high flow condition.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since, the valves function as designed to provide the necessary isolation of PSW to the affected area. This change meets all existing design and construction requirements.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not affect any parameters discussed in the Technical Specifications.

<u>91-117</u>
Rev 0

Relocate the CAV system to minimize personnel man-rem exposure and provide for permanent installation. Monitoring equipment is installed at a sample connection on the RRS sample 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, because the change does not adversely affect the seismic analysis or operation of the interfaced systems. The function, operation, or reliability of any other equipment important to safety is not adversely affected by the modification. In case of a line break, the CAV system is isolated from the RRS and RWCS connections. The piping system, supports, and valves installed per the change are analyzed to ensure seismic integrity.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets the requirements of the necessary codes and standards to preclude the possibility of adversely affecting any other safety-related equipment. The enclosure wall is designed as a radiation shield to reduce personnel exposure.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since operability of the equipment defined by the Technical Specifications is not affected by the change. No acceptance limits and failure points are altered such that the margin of safety is reduced.

91-168 Rev 0 Replace SBLC injection line check valve 1C41-F007.

1. The 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 no previously evaluated accident precursors are affected by the change. The modification does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. Materials are provided in compliance with design and material standards and installed per the appropriate construction codes. The change has been seismically evaluated to be acceptable. The valve being spring loaded will close before flow reversal, thus water hammer is not a concern for the valve. The modification does not change the response or increase the impact of a malfunction of safety-related components.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since SBLC system function and operation are unchanged. No new system parameters or failure modes are introduced by the change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not change any failure points or acceptance limits.

91-181 Rev 0 Add an isolation valve in a nonsafety-related drain line off the recirculation system and revise FSAR figure 4.3-2 and table A.2-4.

1. The 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 no previously evaluated accident precursors are affected by the change. The modification does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. The change meets the design and material standards, and is

installed per the applicable construction codes. The change has been seismically evaluated and determined to be acceptable. The change does not affect the ability of any safety-related equipment to perform its safety function, nor will it add any safety-related components that could be affected by an equipment malfunction.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new system operating parameters or failure modes are introduced by this modification. System function and operation are unchanged. Failure of the new valve would not create any new accident mechanisms. The valve remains closed during plant operation as the two existing upstream valves are during plant operation.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not modify any failure points or acceptance limits.

91-194 Rev 0 Modify the automatic start logic for the "B" MCREC AHU to allow the unit to start on low air flow to the MCR.

1. The 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 the ability of the MCRECs to maintain adequate pressure in the MCR during normal and accident conditions is not affected by the change. The system is designed to mitigate the effects of an accident on the MCR occupants and has no affect on the probability of occurrence of any type of accident. The cooling capabilities of the system remain unchanged. Operation of the MCR HVAC system using one or two AHUs to provide cooling does not affect the operation of the filter/absorber equipment in the MCRECS. Operation of a single AHU is acceptable because the environmental conditions in the MCR are no more severe than that permitted if two units are in operation. The change ensures that with only AHU "A" or "C" in operation, standby unit "B" starts automatically if either "A" or "C" fails. Therefore, pressurization is possible at all times. The environmental parameters within which the MCRECS operates are not affected by the changes.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new failure modes are introduced. The functions of the system under accident conditions are not changed. The logic changes assure that the MCR can be pressurized within the Technical Specifications requirements with no manual operator action. This operation is consistent with the original design intent of the system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since analysis indicates that the condition of the air entering the HEPA/absorber unit serving the MCR remains within the acceptable limits. In a postulated accident, the Technical Specifications requirement for positive pressure in the MCR is satisfied by operating one AHU and the automatic actuation of one of the two 100 percent capacity filter booster fans.

92-036 Rev 0 Replace the existing six Class 1E and two non-Class 1E GE 2-pole, molded-case circuit breakers in the RPS with GE 3-pole molded-case circuit breakers.

1. The 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 no system operation, system integrity, or safety limit is affected by the modification. All new circuit breakers are similar in form, fit, and function to the existing circuit breakers, except they have 3 poles instead of 2 poles. The replacement circuit breakers for Class 1E breakers are qualified to IEEE's Class 1E applications. Operation of the new breakers is identical to the existing breakers. The seismic qualification of the existing RPS protection panels is not impacted by the modification. No function, response, or integrity of any equipment important to safety is affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no changes to the existing system logic or operation are made; and no new failure modes are introduced as a result of this modification. The replacements meet the qualification requirements for the application and are seismically installed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no changes to the Technical Specifications result from this modification. No setpoint, safety limit, plant response, or safety equipment is impacted by the change.

92-075 Rev 0 Restore certain MOVs to their condition as analyzed in their EQ test report.

1. The 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 availability of the equipment required to mitigate the consequences of an accident is ensured by the change. The integrity and design function of the emergency systems required for design basis accidents analyzed in the FSAR remain unchanged. Function of the safety-related components is not affected by the change. The modification ensures the design function of the selected MOVs is maintained by reducing the potential for inadvertent operation of the TOLs.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by the change, and therefore, the change does not create the possibility of any new accidents.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification restores the condition of the MOV trip function to that which is analyzed in the EQ test report, and ensures the availability of the MOVs when required. This ensures that the margin of safety as defined in the Technical Specifications is maintained.

92-116 Rev 1 Revise and coordinate the low voltage alarm setpoints for the Class 1E safety-related station service and diesel generator batteries and chargers. The new battery low voltage alarm setpoints provide an early warning of battery discharge to permit time for corrective actions before battery voltage violates the Technical Specifications limit.

1. The 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 they do not control any parameter which might contribute to the occurrence of any evaluated accident. The changes provide a better indication of the state of charge of the batteries. No alarm units or wiring is replaced. No change in operator response to the alarm is required by the modification. The alarms provide only a monitor function and do not control any safety-related equipment. The changes assure the "DC" systems support the analyzed responses to all previously evaluated accidents or transients.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the modification does not represent a change in function, operation, or any control parameter associated with safety-related equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are changed.

92-124 Rev 0 Restore certain MOVs to their condition as analyzed in their EQ test report. The change allows jumpering of the trip function of the TOLs for the subject MOVs.

1. The 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 the basic function and operation of the affected equipment/ systems, and operator's response to the analyzed accidents are unchanged. The change ensures the performance of the EQ motors for their intended functions. The modification meets the requirements of the tested configuration for EQ motors to ensure the motors perform their intended safety-related functions.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new equipment is added by the change and the basic function and operation of the existing equipment remains unchanged. The modification complies with the tested configuration for EQ motors, and ensures the motors perform their intended safety-related functions.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits are increased and no failure points are decreased. Jumpering of the TOLs is not addressed in the Technical Specifications. The modification ensures performance of the EQ motors for their intended functions.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

78-052 Rev 1 — Cap spare drywell penetration X-76. This peneration was originally intended to support installation of a fire suppression water system in the drywell, which was ultimately not 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 because inverting the drywell provides the fire protection for the drywell, and the containment penetration is returned to a qualified "spare" status.

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

3. The margin of safety as defined in the bases for Technical Specifications is not reduced due to this change because inserting provides the required primary containment fire protection.

84-183 Rev 0 — Replace the existing generator and transformer temperature recorder 2N40-R600 with a compatible 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, because the replacement is more reliable and fully compatible with existing systems. Function or operability of any other system is not adversely impacted.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new failure mechanisms or modes are introduced by the change. The replacement is seismically qualified, and the seismic integrity of the MCR panel in which the new recorder is installed is not adversely affected. The change has no impact on the function or operability of any system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the replacement is compatible with existing equipment, maintains the function and operation of the system as designed, and enhances the system reliability.

85-179 Rev 1 Remove existing Unit 2 offgas recombiner A and B inlet temperature indicators which are not thermocouple compensated and replace them with Dixon thermocouple compensated indicating switches. This change requires a revision to 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, because the operation or failure of the offgas system does not impact any safety-related system, structure, or component. The function, response, or integrity of any equipment important to safety is 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, since existing system logic and operation are unchanged. No new failure modes are introduced as a result of this modification.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no changes to the Unit 2 Technical Specifications result from this modification. No setpoints, safety limits, plant responses, or safety equipment are impacted by this change.

86-308 Rev 1 Modify safety-related pipe supports on the MSL and main steam relief valve discharge 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, because the modified supports comply with all piping and supports code requirements. Modifications to the MSL pipe supports assure safe plant operation during the Alternate Shutdown Cooling Mode of operation. The changes assure the piping in the affected systems functions as designed. All the piping and supports withstand all design basis loads. The changes assure the system meets the design bases and functions to mitigate the consequences of an accident.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the systems meet their design basis and functions per the accident analysis. The system components withstand all required loading combinations.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the piping and supports are not specifically addressed in the Technical Specifications bases. The modifications assure that the systems function within their safety design basis.

87-115 Rev 0 Replace existing station service battery chargers with functionally and operationally equivalent units. This change requires a revision to 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, because the replacement battery chargers are more reliable than the existing units and are functionally and operationally equivalent to the existing units. The replacement chargers meet all standards and codes for Class 1E service at Plant Hatch.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the additional charger alarms provide better monitoring of charger operation and do not introduce any new modes of failure.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new battery chargers meet Technical Specifications requirements and do not change any acceptance or safety limits. No failure points are decreased, and no acceptance limits are increased.

87-150 Rev 0 Add interposing auxiliary relays to the MCC starters and the local starter of LPCI MOVs and the standby diesel service water pump to reduce voltage drop in the control circuits during energization of the starters.

1. The 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 this design change reduces voltage drop in the starter control circuits which ensure that sufficient voltage is available across the relay and contactor coils for their safe operation. All other components operate per their original design intent.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new failure modes are being introduced. The limiting conditions described in the HNP-2 Technical Specifications are observed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this design change does not affect any system logic, setpoint, or response time. The Technical Specifications address the LPCI mode of RHR and the PSW system.

88-065 Rev 0 Replace existing Sigma temperature indicators and indicating switches in the CRD, RBCCW, and primary containment systems with Dixon Model SA 101 digital/barograph instruments. This change requires a revision to 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, because the new indicating switches have the same function as the previously evaluated indicators and indicating switches. Relocation of the indicating switches does not adversely 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, since, although the replacement instruments are not identical to the units replaced, they perform the same function, with an improvement in the detectability of a failure. No equipment important to safety is altered in function or operation by this modification.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no changes to the HNP-2 Technical Specifications result from this modification. No setpoints, safety limits, or plant responses are impacted by this modification.

88-174 Rev 0 Provide a support for the electrical junction box to PSW inlet valve 2P41-F037B.

1. The 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 adding the junction box support is evaluated in accordance with the existing design criteria and does not alter any system configurations or functions. Thus the components and systems associated with this support continue to perform their designed safety function.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created since, no new failure modes are introduced. The modification has been evaluated to ensure that Seismic Category I criteria are maintained. No adverse effects to system configuration or function result from this modification.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since this modification is performed in accordance with the limiting conditions for operation associated with the HNP-2 Technical Specifications to ensure safe operation of the plant is not compromised.

88-186
Rev 0

Replace existing emergency diesel generator batteries 2A and 2C with new higher capacity batteries and battery racks. Replace associated battery cables from the battery fuse boxes to the battery terminal plates. This change requires a revision to 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, because the new batteries and associated racks do not affect the function, operation, or response of any system required to mitigate an accident.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the new batteries, racks, and cables meet all applicable seismic and environmental qualification requirements. Battery function is unchanged. The design change does not introduce any new modes of failure.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new batteries are of higher ampere-hour capacity and supply a given load for a longer period of time than the existing batteries.

88-231 Rev 0 Replace the existing RWM for the plant process computer with a new RWM as a part of the Nuclear Measurement Analysis and Control (NUMAC) line of instrumentation. This change requires a revision to 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, because the NUMAC-RWM with its self-diagnostics capability is more reliable than the current process computer-based RWM. The probability of a rod drop accident, which depends on the potential for mechanical uncoupling of a control rod from its drive, is unaffected. The process computer, of which the RWM is a part, is a system not required for safety.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the computer-based NUMAC-RWM performs the same function as the current RWM. No new failure modes are introduced by the replacement equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the rod patterns allowed by the new system are unchanged. The margin of safety for the control rod drop accident is defined in terms of 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.

88-302 Rev 0 Provide design for the Unit 2 permanent HWC system that interfaces with the DCR 88-303 design and addresses the operation and use of the injection equipment. This change requires a revision to 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, because an accident concerning the failure or rupture of the existing hydrogen bottle for the generator as evaluated in Chapter 15 does not adversely affect any safety-related equipment. A mishap with any hydrogen, oxygen, or nitrogen facility does not adversely affect any safety-related equipment. The use of the HWC system does not lead to any safety concerns related to fuel and core operations or to BWR plant structural materials.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. Although the consequences of rupture of an oxygen tank have not been previously evaluated in the FSAR, the location of the tank complies with the separation criteria established in the EPRI Guidelines for permanent BWR HWC installations. The failure of the hydrogen, oxygen, or nitrogen tanks does not adversely affect any safety-related equipment. The use of the HWC system does not lead to any safety concerns related to a LOCA in the containment. Explosive mixtures cannot be obtained with an inerted containment. Although this change increases radiation levels inside and outside the plant structures, maximum worker exposure is well within the current 10 CFR 20 limits.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the HWC system is shut down at less than 30 percent reactor power. The Technical Specifications currently address the use of HWC and radiation monitor setpoint changes. No other parameters or setpoints discussed in the Technical Specifications are affected. Nor are any added that should be included.

89-175 Rev 1 Provide connections for removable instrumentation to monitor the flow rate and temperature of the PSW system supply to the ECCS equipment in the reactor building. Relocate the restricting orifice for the PSW discharge from RHR and CS pump room coolers 2T41-B002A and B. This change requires a revision to 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, because this design change meets the design, material, and construction standards applicable to the PSW system. No existing instrumentation is affected, and the system is not operated outside its design or testing limits. This change does not affect the accident response of any system or component important to safety or involve 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, since this modification to the PSW piping does not create any new failure modes of equipment important to safety. No functional, operational, or testing changes are being made to any system or component.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the function and operation of the PSW system and the systems it supports are not affected by this design change. No system is operated outside the boundaries specified in the Technical Specifications.

89-180 Rev 0 Replace the seal cooler on each of the four Unit 2 RHR pumps (2E11-C002A, B, C, and D). This change requires a revision to 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, because the replacement seal coolers are of the same size, type, and design as the existing coolers, except the shell is constructed of a higher strength material to withstand higher pressures. The function and operation of both the RHR and PSW systems and their equipment are not affected by 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, since the function of these systems remains unaffected by this design change. The RHR seal coolers act to cool the seal water to the RHR pump seal, which is a passive function. The seal coolers do not provide any control function for either the RHR or PSW systems.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not specifically address the existing RHR pump seal coolers. The associated RHR pump is taken out of service when implementing this design change.

89-213 Rev 1 Replace the solenoid valve and limit switch cables for MSIV outboard valves and check 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, because this design change does not introduce any new interfaces or adversely impact any system required to mitigate an accident. System function is unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the addition of qualified splices does not affect system operation. No new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the requirements for primary containment integrity are satisfied. The operation of the subject valves is covered in the Technical Specifications. However, the Technical Specifications do not discuss the cables. System function is unchanged.

89-253 Rev 0 Provide guidance and procedures for the selection and approval of replacement fuses for Class 1E safety related and non-Class 1E fuses outside the MCR.

1. The 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 the replacement fuses provide equivalent or better circuit/equipment protection and enhance system reliability. The replacement fuses are qualified to the applicable harsh environments.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the design, function, and response of systems associated with these fuses are not affected by this design change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not address fuse ratings or types. System function is not changed.

89-262 Rev 0 Replace existing emergency diesel generator battery 1B with a new higher capacity battery and battery racks. This change requires a revision to 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, because the new battery and associated racks do not affect the function, operation, or response of any system required to mitigate an accident.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the new battery, racks, and cables meet all applicable seismic and environmental qualification requirements. Battery function is unchanged. No new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new battery is of higher ampere-hour capacity and supplies a given load for a longer period of time than the existing battery.

89-267 Rev 0 Replace existing permanent and portable 2A and 2C diesel generator battery chargers with new chargers. Replace the alarm rcuit plug and receptacle for both battery systems with an alarm selector switch and nonsafety-related test receptacle. This change requires a revision to 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, because the replacement battery chargers are more reliable than the existing units and are functionally and operationally equivalent to the existing units. The replacement chargers meet all standards and codes for Plant Hatch including Seismic 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, since the replacement battery chargers are functionally and operationally equivalent to the existing chargers. No ESF response is changed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new battery chargers meet Technical Specifications and do not change any Technical Specifications acceptance or safety limits. No failure points are decreased, and no acceptance limits are increased.

89-282 Rev 0 Provide a torus hardened vent (THV) system around the SGTS filter trains to ensure a reliable reliable vent path is available in the event of a severe accident. This change requires a revision to 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, because the THV meets the design, material, and construction standards of the systems being modified. The THV is isolated from the PCIS and the SGTS by an 18-inch butterfly valve and an 18-inch rupture disc, both of which provide sufficient isolation to ensure the THV does not compromise the design basis safety function 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, since no changes to the existing containment isolation valve logic are required as a result of this modification. Changes to the existing piping and the impact of load changes on support design have been evaluated to ensure the original design basis is not invalidated. All new structures, piping, conduit, and associated supports are designed seismically to ensure no new hazards are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since installation of the THV is performed in accordance with the applicable Technical Specifications limiting conditions for operation. The THV has no adverse effect on the operability of the SGTS or PCIS, as described in the Technical Specifications.

<u>90-030</u> Rev 0 Add a passive General Electric Zinc Injection Passivation (GEZIP) system to the HNP-2 feedwater system to control radiation buildup within the reactor coolant pressure boundary.

1. The 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 system operation and safety limits are not affected by the addition of the passive GEZIP system. No adverse effect to 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, since the condensate and feedwater system function and operation remain the same by the addition of the passive GEZIP system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety requirements are introduced or changed due to this modification. Zinc does not influence any reactor operating characteristics or operating variables.

90-035 Rev 0 Change the "TURB CNTL VLV FAST CL & STOP VLV SCRAM BYP" annunciator to read "TCV FAST CL & STOP VLV SCRAM CH BYPASS" and add a new "TURB CNTL VLV FAST CL & STOP VLV SCRAM BYP" annunciator.

1. The 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 the trip function of the relays is not changed. The safety-related relays provide isolation from the nonsafety-related components. The scram bypass relays have previously been evaluated for their importance to safety.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the scram bypass relays have previously been evaluated for their possible contribution to an accident. The additional annunciator logic does not introduce any new failure modes to the equipment as no changes are made to the function or operation of the equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not affect any setpoints or parameters which provide the margin of safety in the Technical Specifications.

90-047 Rev 0 Remove the blind controller and the error signal limiting (ESL) network from the recirculation pump speed control system. Remove the feedback signals and install rate limiters.

1. The 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 this modification decreases the probability of a recirculation flow controller failure. Failure of this flow controller causing increased flow is evaluated in FSAR sections 15.1.24 and 15.1.25. The recirculation pump trip function is not impaired by this modification. No other malfunctions evaluated in the FSAR are related to this change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the revised reactor recirculation flow control system maintains the same function as prior to the modification and operates in a more conservative manner. No other plant responses are affected.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety limits or setpoints of any safety equipment are affected. No changes to the Technical Specifications are required.

<u>90-102</u> Rev 0 Replace the existing BWR/4 D-Lattice control rod blades for the Hatch Unit 2 reactor with GE Duralife-230 D-Lattice (D-230D) control rod blades. This change requires a revision to 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, because the mechanical and nuclear properties of the D-230D control rod assemblies do not differ from the existing control rods in a manner that impacts the operation of other safety-related equipment 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, since the original blade is replaced by a like-kind blade. Any difference in material, size, weight, and reactivity control has been evaluated with respect to the plant design basis and shown to be acceptable. No new failure modes are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the uncertainty in the ability to analytically determine the strongest rod for cold shutdown margin demonstrations is not increased. Any change in the calculated calories per gram that may result from the slightly higher cold rod worth of the D-230D control rods is bounded by the GE generic control rod drop accident analysis, which is applicable to Plant Hatch. Analysis and experiments have shown that the D-230D rod assemblies are sufficiently similar to existing equipment and their use does not affect the consequences of an accident.

90-103 Rev 0 Load GE-11 Lead Use Assemblies (LUA) into the Hatch Unit 2 reactor during Cycle 10 and future cycles.

1. The 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 the radionuclide inventory of a part-length rod will always be less than that of a full-length rod. Therefore, the radiological consequences of an accident are always less than for a full-length rod, even with complete failure of the fuel cladding; e.g., a fuel handling accident. The GE-11 LUAs have a higher discharge exposure capability than the GE-9 LUAs. This does not make a significant change, because the isotopes of concern (iodine and noble gases) reach equilibrium at exposures below the GE-9 discharge exposure. The LUAs are not operated at powers exceeding those of the GE-9. The other new hardware associated with this design change are designed and tested to the same criteria as the previous hardware.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the GE-11 fuel assemblies contain the same types of hardware as the GE-9 fuel assemblies. Each component, as well as the assembly as a whole, are operated in the same manner as the GE-9 assemblies.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since calculated operating limits or restrictions are imposed. All such calculations and evaluations for this modification are performed using NRC approved codes and methods.

90-104 Rev 0 Load GE-9 fuel bundles into the Hatch Unit 2 reactor for use during Cycle 10 and future cycles.

1. The 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 GE-9 fuel involves only minor changes to the existing fuel, is designed to have the same end-of-life fission gas inventory as the existing fuel, and is designed to meet the same acceptance criteria. Overall reactor performance is not degraded as a result of using this fuel.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since GE-9 fuel involves only small differences in the mechanical, thermal-hydraulic, and nuclear fuel design relative to existing Hatch reload assemblies. No other plant systems or equipment are affected by this change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the GE-9 bundle is used in reload core designs which satisfy at least 1% dk/k cold shutdown margin and conforms to the Technical Specifications limit for the MCPR safety limit. NRC-approved codes and methods are used to perform all analyses for the GE-9 fuel, and accident and transient analyses evaluated in the FSAR remain valid.

90-113 Rev 0 Rewire the limit switches of RCIC steam supply valve 2E51-F045 so that optimum equipment operation is achieved.

1. The 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 these changes do not adversely affect any precursors to accidents analyzed in the FSAR. The function and operation of the equipment are the same, with some improvement in the response time. The only difference is that the limit switch changes provide a greater assurance that the RCIC system responds within the limits specified 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, since the function and operation of the system are the same. The only difference is an improvement in the response time of the system. No new failure modes are being introduced due to the limit switch changes.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since rewiring the limit switches of the subject valve improves the response time of the RCIC system. No failure points are decreased, and no acceptance limits are increased as a result of this change.

90-132 Rev NA

Provide MSIV solenoid status monitoring for inboard and outboard main steam lines A, B, C, and D. Locate status monitoring LEDs on two control consoles in the MCR.

1. The 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 the placement of resistors and LED indicator lights improves the operator's ability to respond effectively during all modes of operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no equipment important to safety is altered in function, integrity, or operation by this modification. No new failure modes to equipment important to safety are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the placement of resistors and LED indicating lights is an enhancement of operator interface and response. No acceptance limits or failure points are affected by this change.

90-181 Rev 0

Reconnect the RPS normal-alternate and alternate-alternate power sources in order to improve the phase load balance of the essential transformers.

1. The 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 system logic or equipment operation is not adversely affected by the changes. They enhance the phase load balance of the essential transformers. FSAR is not impacted by the changes.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the phase load balance of the transformers is enhanced by the changes. No logic or function is affected so that any new accident mechanisms are created. No new modes of failure are introduced by the changes.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the logic and operation of the equipment is not changed. No acceptance limits are increased and no failure points are decreased.

90-211 Rev 0 Disconnect, remove, and spare the existing nonsafety-related Startrec system cables from safety-related electrical drywell Penetrations 2T52-X104A and 2T52-X104B.

1. The 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 no system or equipment operation is adversely affected by the changes. Since the cables are not used, there is no adverse affect on any plant system utilizing the penetrations. Sparing the cables does not adversely affect the penetrations' boundary. The changes are performed outside the penetrations' boundary and have no adverse affect on the containment integrity. Other system cables using these penetrations are unaffected because the spared cables are physically and electrically separated from them. The cables are not connected to any functioning equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no operating system or equipment changes to operating systems occur due to the modifications. The changes do not affect the penetrations' ability to provide containment integrity since the penetration boundary is not affected. No new equipment failures are possible since no new failure modes are introduced. The cables are not connected to any functional equipment and are not a part of any active system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the penetrations are not directly addressed in the Technical Specifications and the system is not included in the Technical Specifications. Containment integrity is not affected by the modification.

90-212 Rev 0 Disconnect and remove the existing nonsafety-related Startrec system cables from safety-related electrical drywell penetrations 2T52-X104F and 2T52-X104G.

1. The 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 no other system or equipment operation is adversely affected by the changes. Since the cables are not used, there is no adverse affect on any plant system utilizing the penetrations. Sparing the cables does not adversely affect the penetrations'

boundary. The changes are performed outside the penetrations' boundary and have no adverse affect on the containment integrity. Other system cables using these penetrations are unaffected since only the Startrec system cables are completely removed. The cables are completely removed from the plant.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no operating system or equipment changes to operating systems occur due to the modifications. The changes do not affect the penetrations' ability to provide containment integrity since the penetration boundary is not affected. No new equipment failures are possible since no new failure modes are introduced. The cables are not connected to any functional equipment and are not a part of any active system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the penetrations are not directly addressed in the Technical Specifications and the system is not included in the Technical Specifications. Containment integrity is not affected by the modification.

<u>90-236</u> Rev 0 Replace the operator and yoke assembly of HPCI steam isolation valve 2E41-F002 to comply with Generic Letter 89-10.

1. The 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 the change assures operation of the valve in accordance with the design requirements and improves the reliability of the valve. The response of the system and performance of the piping and other equipment important to safety are not affected by the change. The consequences of a failure of safety-related equipment due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all existing design and construction requirement. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. Valve design is now more conservative with respect to valve closure.

<u>90-237</u> Rev 0 Replace the motor and spring pack for the operator assembly of RCIC steam isolation valve 2E51-F007 to comply with Generic Letter 89-10.

1. The 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 no previously evaluated accident scenarios are affected by the changes. The changes improve the reliability of the valve. The response of the system and performance of the piping and other equipment important to safety are not affected by the changes. The consequences of a safety-related equipment failure due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all the existing design and construction requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. Valve design is now more conservative with respect to valve closure.

<u>90-238</u> Rev 0 Replace the motor and spring pack for the operator assembly of RCIC steam isolation valve 2E51-F008 to comply with Generic Letter 89-10.

1. The 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 no previously evaluated accident scenarios are affected by the changes. The changes improve the reliability of the valve.

The response of the system and performance of the piping and other equipment important to safety are not affected by the changes. The consequences of a safety-related equipment failure due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all the existing design and construction requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. Valve design is now more conservative with respect to valve closure.

90-239 Rev 0 Replace the operator and yoke assembly of RWCU inboard isolation valve 2G31-F001 in order to comply with Generic Letter 89-10 guidelines.

1. The 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 the change assures operation of the valve in accordance with the design requirements and improves the reliability of the valve. The response of the system and performance of the piping and other equipment important to safety are not affected by the change. Consequences of a failure of safety-related equipment due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all the existing design and construction requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. The valve design is now more conservative with respect to valve closure due to the modification.

<u>90-240</u> Rev 0 Replace the operator and yoke assembly of HPCI steam isolation valve 2E41-F003 in order to comply with Generic Letter 89-10 guidelines.

1. The 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 the change assures operation of the valve in accordance with the design requirements and improves the reliability of the valve. The response of the system and performance of the piping and other equipment important to safety are not affected by the change. Consequences of a failure of safety-related equipment due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all the existing design and construction requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. The valve design is now more conservative with respect to valve closure due to the modification.

<u>90-241</u> Rev 0 Replace the operator and yoke assembly of RWCU outboard isolation valve 2G31-F004 in order to comply with Generic Letter 89-10 guidelines.

1. The 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 the change assures operation of the valve in accordance with the design requirements and improves the reliability of the valve. The response of the system and performance of the piping and other equipment important to safety are not affected by the change. Consequences of a failure of safety-related equipment due to the valve malfunction remain the same as before the component replacement.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change meets all the existing design and construction requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. The change improves the safety factor of the valve; therefore, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. The valve design is now more conservative with respect to valve closure due to the modification.

<u>90-249</u>
Rev 0

Modify the RSCS such that the control function of the system for enforcing a preselected rod withdrawal and insertion sequence is defeated. The sequence enforcement function is now performed by the RWM 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, because changes in RSCS do not cause or increase the probability of any accident previously evaluated in the FSAR. A study determined that conservative probabilities for occurrence of a rod drop accident (RDA) and the associated events have a large margin and are within acceptable limits. No function related to safety is adversely modified or impacted. The RWM system is more reliable and contains self-testing and diagnostic features. No evaluated accident condition of a larger magnitude results from the modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since RSCS performs no direct actions which create or prevent the possibility of an accident. Removal of the control function from the RSCS does not affect the ability of the RWM to perform the function. Reliability of the RWM and other equipment important to safety is not affected. No new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits are increased and no failure points are decreased. The margin of safety is retained by the use of a more reliable and dependable rod sequence enforcement device.

91-002 Rev 0 Replace pressure switches 2C71-N003A, B, C, and D with pressure switches having a smaller dead band to minimize the 30 percent power TCV/TSV scram bypass differential on ascending and descending power, which these switches 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, because the new switches meet the same requirements as the old switches. No aspect of plant operation is affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since installation and configuration of the new switches are the same as that of the old switches. The failure mode is identical.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not affect any operational limit or setpoint.

91-014 Rev 0 Modify the RHRSW pump/motor bearing oil drain 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, because the change meets the design, material, and construction standards applicable to a safety-related component. None of the accident precursors are affected by the change.

The malfunction of the pipe/valve sample and drain assembly could only impact the RHRSW system by a loss of a pump motor which has been evaluated in the FSAR. An evaluation of the potential impact to the seismic qualification of the affected motors determined that the motors' seismic integrity is not adversely affected by the addition of the oil reservoir drains and piping, and the subject drain valves and piping are not adversely affected by seismic loads. The modifications do not change the response or increase the impact of a malfunction of safety-related components. System function and operation are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. System function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR; only pump/motor failure is included.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the safety design bases for the RHRSW system are not altered by the change. The system still provides cooling water for the required loads. No significant failure points are introduced; no acceptance limits are altered.

<u>91-016</u> Change the RHR pump/motor oil drain isolation configurations.
Rev 0

1. The change meets the design, material and construction standards applicable to a safety related component. None of the accident precursors are affected by the change. The malfunction of the pipe/valve sample and drain assembly could only impact the RHR system by a loss of a pump motor which has been evaluated in the FSAR. An evaluation of the potential impact to the seismic qualification of the affected motors determined that the motors' seismic integrity is not adversely affected by the addition of the oil reservoir drains and piping, and that the subject drain valves and piping is not adversely affected by seismic loads. An evaluation of the potential impact to the environmental qualification of the RHR pump/motor determined that the nonmetallic materials used in the pressure boundary would remain serviceable at the operating and accident temperature and radiation levels for the RHR diagonal. These changes do not change the response nor increase the impact of a malfunction of safety related components.

2. No new modes of failure are introduced by this modification. The system function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR, only the failure of pump/motor is included. Therefore, a different type of malfunction has not been introduced by this change.

3. The ability of the RHR pump/motors to function according to their design basis has not been altered. Therefore, no significant failure points are reduced, and no acceptance limits are altered.

91-018 Change the CS pump/motor oil drain isolation configuration.
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, because the change meets the design, material and construction standards applicable to a safety related component. None of the accident precursors are affected by the change. The malfunction of the pipe/valve sample and drain assembly could only impact the CS system by a loss of a pump motor which has been evaluated in the FSAR. An evaluation determined that the subject motors' seismic integrity is not adversely affected by the changes, and the subject drain valves and piping are not adversely affected by seismic loads. An evaluation of the potential impact to the environmental qualification of the CS pump/motor determined that the nonmetallic materials used in the pressure boundary would remain serviceable at the operating and accident temperature and radiation levels for the RHR/CS diagonal. These changes do not change the response nor increase the impact of a malfunction of safety-related components.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. The system function and operation are unchanged. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR; only the failure of the pump/motor is included. Therefore, a different type of malfunction has not been introduced by the changes.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, because the qualification of the pump/motor is not altered by the changes. The function of the CS pump/motors remains unchanged; therefore, no acceptance limits are altered or significant failure points reduced.

91-021 Rev 0 Permanently install a diode assembly across pins 10 and T of APRM/LPRM circuits to mitigate noise spikes caused by grounding problems. This design change was previously implemented by a temporary modification.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated is not increased, because this change holds the voltage to ground level (0 volts) and prevents spikes entering the APRM/LPRM page. The safety operation of the APRM channels is not affected. The consequences of a malfunction remain unchanged.

2. The possibility of an accident or malfunction of equipment of a different type than any previously evaluated is not increased, since this modification requires an outage for implementation of the diodes procured as safety related from GE. No signals are attenuated by the diode assemblies. Failure of either diode (open or closed) has no adverse effect on the system.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this design change does not alter any allowable limit or failure point of any system or equipment important to safety.

91-046 Rev 0 Modify the logic of solenoid valve 2E41-F053 such that its position is controlled by steam supply valve 2E41-F001 rather than level switch 2E41-N077. Remove isolation valves, a steam trap, a drain valve, and associated piping from the HPCI turbine exhaust drain line. Install piping in the place of the steam trap and the isolation valves. This change requires a revision to 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, because this design change meets or exceeds the design material and construction standards applicable to the portion of the HPCI system being modified. The function and operation of the HPCI 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, since no new modes of failure of equipment important to safety are introduced by this design change. This modification reduces the possibility of allowing steam to enter the HPCI barometric condenser, thus causing it to overpressurize.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect the limiting conditions for operation or surveillance requirements for the HPCI system, or any other systems important to safety. No acceptance limits are increased, and no failure points are decreased by this change.

91-052 Rev 0 Replace the feeder cables for valves 2E41-F006 and 2E41-F007 to improve voltage drop and increase the torque available to operate 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, because the cable upgrade does not affect system operation or function. This design change improves system voltage levels and provides more torque for the affected valves.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since upgrading the feeder cables improves voltage drop and increases the torque available to operate the valves. Valve operation is controlled by the torque switches, thus the increased torque does not change system configuration or logic but allows an increase in the torque margin of the valve operator.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this design does not affect the operation or response of the HPCI system. No acceptance limits are increased, and no failure points are decreased.

91-077 Rev 0 Replace the RHR pump "B" motor, and revise the FSAR text and tables accordingly.

1. The 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 no change in the operation of the motor or its associated pump or the total RHR system is caused by the modification. The pump motor, coupling, and supplemental oil reservoir sample/drain design meet or exceed the design basis requirements. The pump/motor system is determined to be seismically acceptable, and no anchorage component exceeds the acceptance criteria set forth in the FSAR. New conduit and conduit supports meet seismic design requirements. All existing accident and transient analyses remain unaffected by the change. The interfaces between the RHR system and other safety-related systems remain unchanged. An evaluation determined that the subject motor's seismic integrity is not adversely affected by the changes, and the subject drain valves and piping are not adversely affected by seismic loads. An evaluation also determined that the nonmetallic materials used in the pressure boundary would remain serviceable at the operating and accident temperature and radiation levels for the RHR diagonal. Failure of the RHR pump has previously been evaluated in the FSAR. Replacement of the motor does not introduce any new type of failure which has not been previously analyzed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the system is functionally and structurally unaffected by the changes. These changes meet the service requirements specified for the original design. Loss of lube oil to the pump/motor is not specifically addressed in the FSAR, only the failure of pump/motor is included.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no degradation of safety functions is caused by the modification. System pressure boundaries and functions are unaffected. No acceptance limits are increased and no failure points are decreased. Therefore, the margin of safety is not reduced.

91-094 Rev 0 Replace two Dresser stop check valves 2C11-F014A and B in the Unit 2 CRD pump discharge piping with check valves in series with globe valves. This change requires a revision to 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, because the response to this system is not affected by this change. The valve replacement does not affect the performance of the nonsafety-related CRD pumps or any equipment important to safety. This design change improves the reliability of the throttling and isolation process of the CRD water pumps.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since, this change meets all existing design and construction requirements of the CRD system. No new modes of failure or accident mechanisms are created by this design change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected by this change. The reliability and ability of the system to perform are not adversely affected by this modification.

<u>91-120</u> Rev 0 Implement the third phase of "process computer replacement system" and modify the computer room HVAC ductwork.

1. The 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 paralleling connections per this modification do not adversely affect the isolated safety-related instrument loops. Paralleling cables between the two affected cabinets are pulled in seismically supported cable trays, precluding any Seismic II/I concerns. The extension of the existing HVAC duct is a change to nonsafety-related ductwork. Modifications do not adversely affect the structural integrity of the existing Seismic Category I structures. No accidents previously evaluated in the FSAR can be initiated by the equipment in the computer room. All the equipment installed or connected by this change is nonsafety related. The modifications do not adversely affect any safety-related systems required to mitigate the consequences of an accident. The only safety-related equipment in the computer room are some cables, cable trays and conduits which were isolated before their interface in the existing nonsafety-related I/O cabinets.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no failure modes have been introduced. Paralleling connections do not adversely affect the isolated safety-related instrument loops. New nonsafety-related HVAC ductwork is located so that it does not affect the seismic integrity of existing safety-related equipment and structures. The new cables for paralleling connections are pulled in seismically supported cable trays. The process computer system has no safety design basis and does not initiate, or is not required to mitigate, any accidents.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since paralleling connections do not adversely affect the isolated safety-related instrument loops. None of the modifications adversely affect the seismic integrity of safety-related equipment or structures.

91-122 Rev 0 Replace the existing process computer system (2C91) at HNP with a new GE-supplied process computer. This DCR (Phase 4) installs, tests, and energizes the new process computer. This change requires a revision to 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, because all equipment installed or removed by this design change is nonsafety related. Changes in the isolated safety-related instrument loops at the computer end are consistent with the original isolation requirements of IEEE 384-1974. This modification does not affect the seismic integrity of the existing 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, since the process computer system has no safety design basis and does not initiate, or is not required to mitigate, any accidents.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the functions of the existing process computer system are taken over by the new process computer. The changes in the control room are implemented during a Unit 2 outage, although the changes could be implemented during any plant condition.

91-125 Rev 0 Change the diesel generator relay tap settings to improve the relay coordinator.

1. The 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 overall operation of the overcurrent relays for the diesel generators is unchanged by the modification. The change improves the relay coordination, and system response to an accident as designed is ensured. Operational reliability is increased, thus the probability of a malfunction of a 4160-V emergency bus and its supplied safety-related loads is reduced. Equipment function is not affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since only relay setting are being changed. No new accident mechanisms are being introduced. The change enhances breaker coordination. No new failures modes are being introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the relay setting being changed are not part of the Technical Specifications. The coordination margin is being increased. Limits bounding the applicable margin of safety are not being changed; i.e., no failure points are decreased and no acceptance limits are increased.

91-134 Rev 0 Add new sensor-initiated logic to actuate the nuclear boiler system SRV at, or slightly above, the respective mechanical setpoint. This change requires a revision to 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, because the new sensor-initiated logic is one-out-of-two-taken-twice. Therefore, a single failure cannot cause inadvertent SRV actuation. This modification mitigates SRV actuation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the new nonsafety-related SRV backup electrical actuation, is isolated from the existing ADS and LLS safety related-logic by fuses. The electrical actuation of the SRV is independent of the mechanical actuation; therefore, their function is unimpaired.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the function of the SRV, the ADS, and LLS remain unchanged. Adding the electrical actuation logic mitigates the occurrence of SRV mechanical setpoint drift.

91-138 Rev 0 Replace existing Barksdale turbine control valve fast closure pressure switches 2C71-N005A, B, C, and D with new qualified Static-O-Ring pressure switches. Install isolation valves and drain valves near the 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, because the function and operation of the RPS and all other systems remain the same. The new pressure switches are identical to the existing switches. This modification does not adversely affect the function, response, or integrity of any equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created since, there are no changes to existing system logic or operation as a result of this change. No new failure modes are introduced. The new components are Class 1E and seismically qualified and supported.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since no changes to the Unit 2 Technical Specifications result from this modification. No setpoints, safety limits, or safety equipment are impacted by this modification. The new pressure switch response time is within the existing Technical Specifications requirements.

91-147 Rev 0 Modify the fans on LPCI invertor room coolers 2Z41-B020A and B to allow the coolers to achieve their design flow rate of 9850 cfm.

1. The 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 the LPCI invertor room cooler fans are not the initiators of any accident identified in the FSAR. The modified fan rotors are designed and constructed equal to or better than the original standards.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since with the exception of the number of blades on the fan rotors, the modified fans are identical to the existing fans.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the LPCI invertor room coolers are not specifically discussed in the Technical Specification. The Technical Specifications clarification discussing the coolers is not affected by this modification. Only one room cooler fan is changed at a time, and the cooler is inoperable while its fan is being modified.

91-163 Rev 0 Replace existing Unit 2 HPCI test to CST valve 2E41-F008 with a new DRAG valve designed to resist cavitation. Provide local operation and indication for the new valve. This change requires a revision to the FSAR.

1. The probability of occurrence or the consquences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this modification does not affect the contribution the HPCI system has to any accident analysis and does not affect the consequences of an accident previously evaluated in the FSAR. Since the DRAG valve closure time does not meet the requirements of Technical Specifications Table 3.3.3-3, the HPCI system will be declared inoperable whenever this valve is open as required by Specification 3.3.3.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since failure of the replacement valve results in the same effects as failure of the existing valve. No new failure modes that can affect any equipment important to safety are introduced by this design change.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since this design change does not affect the Technical Specifications bases for 3/4.5.1. No acceptance limits are increased and no failure points are decreased.

91-182 Rev 0 Upgrade the chemistry counting computer system and detector peripherals of the PASS. Upgrade the health physics information system and whole-body counting system to improve capability, interconnectivity, and efficiency. This change requires a revision to 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, because, although this modification occurs in the control building, the changes do not include any safety-related systems or systems 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, since this modification has been analyzed to ensure safety systems/structures/components have not been degraded or their safety margins reduced. Failure modes of the new equipment cannot create an accident that might cause the release of radiation to the environment or threaten public safety.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification changes only one system referenced in the Technical Specifications. The portion of this system (2P33) being changed is not addressed by the Technical Specifications. Furthermore, this change does not increase any acceptance limits or decrease any failure points.

<u>91-187</u>
Rev 0

Replace the existing undervoltage alarm relays for the 4160-V essential buses with more accurate relays and time delay relays. The undervoltage relays are set to provide a degraded grid anticipatory alarm.

1. The 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 new relays and their installation comply with the Seismic II/I criteria. No functional changes to the protective relaying system is caused by the changes. The fuse replacement improves cable protection and isolation between nonsafety-related and safety-related equipment. The new relays installed provide only an alarm. They do not perform any active safety function during an accident event.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the function of the protective relaying system is unchanged by the modification. No new accident scenarios are introduced. Because of isolation of the nonsafety-related relays from the safety-related relays, no malfunction of equipment important to safety is created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no Technical Specifications parameters are affected. No acceptance limits are increased, and no failure points are decreased.

92-012 Rev 0 Add manual reset pushbuttons and seal-in contacts to the reactor building vent logic to comply with requirements of NRC IE Bulletin 80-06.

1. The 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 this change adds seal-in contacts to the logic of T41 system dampers to keep them in the emergency mode until they are reset by the manual pushbuttons added by this change. The function of the dampers unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since the pushbuttons are qualified and conform to applicable design requirements, such as separation criteria and seismic considerations. The dampers will remain in the emergency mode until they are reset manually.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since no acceptance limits or failure points are affected by this change.

92-016 Rev 0 Repair the leaking header flanges on Unit 2 drywell coolers 2T47-B007A and B.

1. The probability of occurrence or the consequence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the drywell coolers are not safety related; the piping is part of the PSW closed-loop boundary inside the primary containment as defined by the FSAR.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since the function and operation of the PSW system are unchanged and the seismic integrity is maintained. All modifications meet the code requirements and appropriate design criteria for the system affected.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since this design change does not affect any part of the Technical Specification . This change does not decrease any failure point or increase any acceptance limit of any Technical Specifcation required equipment.

92-024 Rev 0 Change the material in sections of the 2B21-D002 reference leg from carbon steel to stainless steel. This reference leg is a part of the safety-related reactor coolant pressure boundary.

1. The 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 the change removes the possibility of cracking due to corrosion and/or differential expansion of dissimilar metal welds in the reference leg pressure boundary. The reference leg layout and system operation are not changed. The probability of the reference leg failure due to any carbon steel left in the reference leg per the change is not increased. Appropriate examinations are required to demonstrate the integrity of the reference leg prior to its return to service. All components connected to the reference leg function the same as before. The basic design and function of the reference leg are not changed by the modification.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new accident types/equipment malfunction possibilities are created. The basic design and the intended design function of the reference leg are not changed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the material changes in the reactor coolant pressure boundary are not discussed in the Technical Specifications.

92-034 Rev 0 Remove the existing cap and flanged pipe from the spare torus penetration (2T23-X222A), and install a permanent seal at the location. The modification affects the suppression chamber which forms a part of primary containment.

1. The 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 the change does not affect the normal operating requirements of the suppression chamber, or introduce any detrimental loading conditions outside the design parameters of the structure. The existing pressure boundary is not degraded by the change. The design meets the appropriate seismic criteria to preclude unacceptable nozzle loads. The welds and material in the change meet the ASME codes and are acceptable for the operating pressures and temperatures. A failure mode of the change results in loss of the containment boundary. This failure has been previously analyzed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. A failure of the affected penetration results in the same type of accident as previously analyzed. No other safety-related equipment is affected. The material and weld size are adequate for the stress levels in the pressure boundary.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limit is increased nor is any failure point decreased such that the margin of safety is reduced. The pressure boundary of the penetration is maintained to the ASME code requirements.

<u>92-037</u> Rev 0 Replace the existing six Class 1E and two non-Class 1E GE 2-pole, molded-case circuit breakers in the RPS with GE 3-pole molded-case circuit breakers.

1. The 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 no system operation, system integrity, or safety limit is affected by the modification. All new circuit breakers are similar in form, fit, and function to the existing circuit breakers, except they have 3 poles instead of 2 poles. The replacement circuit breakers for Class 1E breakers are qualified to IEEE Class 1E applications. Operation of the new breakers is identical to the existing breakers. The seismic qualification of the existing RPS protection panels is not impacted by the modification. No function, response, or integrity of any equipment important to safety is affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no changes to the existing system logic or operation are made and no new failure modes are introduced as a result of this modification. The replacements meet the qualification requirements for the applications and are seismically installed.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since no changes to the Technical Specifications result from this modification. No setpoint, safety limit, plant response, or safety equipment is impacted by the change.

92-066 Rev 0 Rotate the HPCI steam supply MOV valve 2E41-F001 assembly on its central axis until the motor operator is in the vertical position. This takes the strain off the packing and prevents the valve from leaking.

1. The 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 the change ensures operation of the valve per the design. No previously evaluated accident scenarios are affected. The change improves the reliability of the valve. The change to the piping system does not increase the probability of occurrence of malfunction. The function and operation of the valve/system or any other equipment important to safety is not affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change complies with the existing design, construction, and inspection requirements of the system. No new modes of failure or new accident mechanisms are introduced by the change. Operation and function of the system is not altered. Since the change improves the operation of the valve, no new equipment malfunction possibilities are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are affected. Valve design with respect to valve closure is not changed.

92-068 Rev 0 Replace the existing isolation valves in the RCIC turbine inlet drain pot drain line with bellows sealed 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, because no credible failure modes of the subject drain valves which could result in an inadvertent actuation of the RCIC system are created by the modification. Accident contributions resulting from failure of the subject drain valves are limited to the system and are, therefore, bounded by the existing analysis. The valves are constructed and installed per the code requirements for the safety functions of the RCIC system, and their stress analysis confirms compliance with Seismic 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, since the replacement does not create any new modes of failure. No new safety-related systems are impacted by the modification.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no operating limits established by the Technical Specifications for the system are impacted by the modification. No acceptance limits are increased and no failure points are decreased such that the margin of safety is reduced.

92-074 Rev 01 Remove the source of the oil contamination from several of the containment isolation valves, replace solenoid valves with approved substitute solenoid valves and provide instructions for the alternate lubrication of the valve actuators using vendor directions and recommended lubricant.

1. The 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 the change ensures operation of the valves per the design requirements. No previously evaluated accident scenarios are affected. The change improves the reliability of the valves. The function and operation of the valves/systems are not affected by the change and the consequences of an accident are not increased. The change meets or exceeds the existing system design and inspection criteria such that the probability of safety-related equipment malfunction is not increased. The failure of the affected valves results in the same effects as 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, since operation and the function of the valves/systems are not affected. The change meets the requirements of the applicable codes and standards to preclude the possibility of introducing any new accidents. The reliability of the valves is improved. No new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the limitations described in the Technical Specifications are not affected. The design of the affected valves with respect to the valve closure is not changed.

92-084 Rev 0 Restore the condition of certain MOVs to that as analyzed in their EQ test report. The change allows jumpering of the trip function of the TOLs for the subject MOVs, and meets the MOV TOL contact wiring configuration commitments of the FSAR sections 7.4 and 8.3.

1. The 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 the change conforms the wiring configuration of MOV TOLs to that described in the FSAR. The design function of the equipment involved or the systems of which they are a part are not affected by the modification. The design function is maintained by reducing the potential for inadvertent operation of TOL trips.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new equipment or new modes of failure are introduced by the change. Since the change conforms with the FSAR overload trip contact bypass commitments, a new type of equipment malfunction is not created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits are increased and no failure points are decreased. The modification restores conformance to the FSAR overload trip contact bypass commitments.

92-112 Rev 0 Prepare a seal weld around the RWCU regenerative heat exchanger head flange joints and allow injection of an approved leak repair sealant into the same flange joint.

1. The 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 an accident/malfunction involving failure of the heat exchangers is evaluated in the FSAR. The seal weld is part of the heat exchanger pressure boundary, and has been determined to be an acceptable addition by the stress/metallurgy group. The sealant is rated by vendor for conditions which exceed the system's operating conditions. The consequences of a seal weld or leak repair sealant failure are identical to the consequences of a heat exchanger pressure boundary failure.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since current analyses are still valid. Failure of the seal weld or leak repair sealant has the same impact as failure of the heat exchangers. The possibility of a malfunction of equipment important to safety due to failure of the seal weld or sealant is not different than the existing possibilities.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety requirements are changed due to this modification. The change does not affect the allowable limits or failure points of any component or system.

92-115 Rev 1 Revise and coordinate the low voltage alarm setpoints for the Class 1E safety-related station service and diesel generator batteries and chargers. The new battery low voltage alarm setpoints provide an early warning of battery discharge to permit time for corrective actions before battery voltage violates the Technical Specifications limit.

1. The 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 the alarm setpoints do not control any parameter which might contribute to the occurrence of any evaluated accident. The changes provide a better indication of the state of charge of the batteries. No alarm units or any wiring is replaced, and no change in operator response to the alarm is required by the modification. The changes assure that the "DC" systems support the analyzed responses to previously evaluated accidents or transients.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the modification does not represent a change in function, operation, or any control parameter associated with safety-related equipment. No new accident/malfunction type is created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or failure points are changed.

92-122 Rev 0 Replace the motor and operator for the RCIC pump minimum flow bypass valve in order to upgrade the valve to current environmental qualification criteria for containment isolation valves. The existing motor has class B insulation and the new motor will contain class RH insulation. The operator is also being replaced.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because the configuration, function, and operation of the RCIC system is not affected by replacement of the motor operator. Therefore, no previously evaluated accident scenarios are affected.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because the physical change will meet all existing design and construction requirements of the RCIC system.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because the change assures compliance with applicable standards for the valve containment isolation function.

92-123 Rev 0 Divide the Unit 2 reactor feedwater heater control system into two groups powered separately, to avoid a single failure mode. Plant Hatch Unit 2 reactor feedwater heater control power is fed from a single source of 120/208 VAC, SWGR Bus 2A (2R23-S201). Based on an analysis performed in support of REA-HT-92675, a single source failure of this control power could cause the reactor feedwater temperature to drop more than 200^{0}F. The FSAR has considered a drop of 100^{0}F to be the worst case.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because the power source supplied by vital AC is not safety related. This DCR does not introduce any new failure modes not previously evaluated in the FSAR.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because the changes introduced by this DCR have been analyzed to ensure safety systems/structures/components have not been degraded or their safety margins reduced.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced because this DCR does not include changes to systems referenced in the Technical Specifications.

92-131 Rev 0

Replace the existing Limitorque SMB-2-60 motor operator on reactor recirculation pump B suction isolation valve 2B31-F023B with a Limitorque SB-60. This replacement is required since the type motor on the existing operator is no longer available. Limitorque's solution was to replace the motor and operator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because the configuration, function, and operation of the reactor recirculation system is not affected by the replacement of the motor operator of 2B31-F023B. Therefore, no previously evaluated accident scenarios are affected.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created because the new motor operator meets all existing design and construction requirements of the reactor recirculation system. There is no change in how or when the valve or system is operated. No new modes of failure or new accident mechanisms are introduced by this design change.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because the change does not affect the safety function of the valve. No acceptance limits or failure points are affected; therefore, the margin of safety is not reduced.

92-143 Rev 0 Convert the Unit 2 main control valve scheme from full-arc admission (FAA) to partial-arc admission (PAA). Restore full lift to control valves 2N11-F011A,C,D and reinstall strainer 2N11-D346 in the 2N11-F011B steam lead.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because the plant was originally designed to use PAA. Failure of the Unit 2 main turbine control valves would result in the same effects as failures analyzed previously; therefore, the consequences would not change. GE has determined that the existing first stage buckets will operate until the 1994 outage with no reduction in performance or reliability due to the use of PAA.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because the failure mode of the Unit 2 main control valves with the FAA scheme was performed under the original analysis of the plant. Therefore, no new accident modes beyond the bounds of the original analysis are introduced.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because no acceptance limits are increased and no failure points are decreased by this change.

92-146 Rev 0 Provide a path into the drywell for IRM A by connecting the detector circuit to an IRM cable in penetration 2T52-X100B (approximately 2 feet further west). The cable in penetration 2T52-X100A for IRM A was open circuited. Further testing revealed that there were no acceptable spares in the penetration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because this change to the IRMs in the RPS will not prevent the reactor from being scrammed on appropriate RPS inputs. This change does increase the number of components that may be affected by a single failure in the penetration. However, these components are part of the fail-safe RPS. This change does not prevent the RPS from scramming the reactor on appropriate inputs.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this change does not introduce any new failure modes to the RPS or primary containment electrical penetrations. This change to the IRMs has been reviewed by the original equipment manufacturer and determined to be acceptable. The RPS will continue to be fail-safe. Therefore, no malfunction of equipment important to safety of a different type is introduced by this modification.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because IRM circuitry, which is part of the RPS, is designed as fail-safe. Reconnecting the detector circuit from penetration 2T52-X100A to 2T52-X100B will not alter the auto scram response.

92-147 Rev 0 Remove the existing unqualified test caps on 21 spare primary containment penetrations and install permanent qualified seals that meet ASME Code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR. This modification will not prevent the primary containment from maintaining integrity during accidents, since it will not degrade the existing pressure boundary. The modification will not contribute to accident mitigation that could alter the consequences of evaluated accidents.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this design change affects the configuration of 21 primary containment penetrations. No new modes of failure are introduced by this modification, since a failure of any of these penetrations will result in the same type of accident as previously analyzed.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced. This design will not prevent the primary containment from maintaining integrity required by Technical Specifications because the pressure boundary of the penetrations will be maintained to ASME Code requirements. No acceptance limit is increased nor is any failure point decreased such that the margin of safety is reduced.

UNIT 1/COMMON DESIGN CHANGES (NONSAFETY RELATED)

UNIT 1/COMMON DESIGN CHANGES (NONSAFETY RELATED)

88-185 Rev 0 Replace the HNP-1 cooling tower lead-antimony battery with a lead-calcium battery. Replace the associated battery racks.

1. The 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 the new battery and associated racks installed by this design package are nonsafety related. The battery does not provide power to any systems or components required to mitigate the consequences of an accident.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since the new battery is a direct functional replacement of the existing battery. The battery is sized to support the required loads for a duration of 2 hours without the battery chargers, which is the same as the original battery. Hydrogen evolution for the new battery, is less than that of the original battery and the short-circuit values of the new battery are well within all equipment ratings.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced since, the HNP-1 cooling tower battery is not addressed in the HNP-1 Technical Specifications.

88-205 Rev 0 Replace the existing redundant drum brake for the reactor building overhead crane with a caliper brake assembly. Replace the existing single flange bearing retainer for the overhead crane with a new double flange bearing retainer assembly. Replace the overspeed limit switch and the brake failure limit switch for the overhead crane with new switches. Repair welds along the box frame of the trolley assembly and the diaphragm stiffener plates.

1. The probability of occurrence of the consequences of an accident or malfunction of equipment to safety previously evaluated in the FSAR is not increased, because these modifications do not impact any safety systems or components as postulated in the accident analysis of HNP-1 FSAR section 14.0.

2. The possibility of an accident or malfunction of a different type than any evaluated previously is not created, since overall system functions are unchanged. Operation of the crane brake assembly, bearing retainer assembly, overspeed limit switch assembly, new brake failure limit switch, and trolley assembly remains unchanged. No new modes of failure are introduced.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since these changes have no adverse effect on system design and do not affect the Technical Specifications of either unit.

90-006 Rev 0 Add a humidistat control to the TSC HVAC system. Modify the system ductwork and install a ductmounted electric heater to provide humidity control and winter heat.

1. The 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 the TSC HVAC system is not safety-related and does not serve any safety-related purpose. The modifications to the equipment do not alter the system design intent or affect the capability of the TSC HVAC system to reduce radiation exposure to the TSC occupants.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the TSC HVAC system is not safety-related, and the modifications meeting existing design bases for the HVAC system have no adverse impact on any system function.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the TSC HVAC system is not addressed in the Technical Specifications.

90-029 Rev 0 Install one ion chromatograph (IC) in the turbine building to monitor a feedwater sample and install another IC in the reactor building to monitor a recirc/RWCS sample for zinc content. The ICs connect to existing sample lines.

1. The 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 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.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change only adds connections to the existing sample system to supply the new ICs. The function and operation of all other systems remain the same.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety requirements are introduced or changed due to this modification. The addition of the ICs does not affect the allowable limits or failure points of any component or system.

90-057 Rev 0 Modify portion of a 2 inch nonsafety-related drain line from the dryer/separator storage pool to the clean radwaste sump to reduce clogging. Provide a means to unclog the drain line if future clogging occurs.

1. The 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 this design change does not affect the operation of any safety related system. System reliability and operability are not degraded. Protection features are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change does not add or delete any interfaces with existing systems. Hazardous materials are not added or relocated, and the possibility of a new or different radioactive release event is not created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the existing limiting conditions for operation as described in the HNP-1 Technical Specifications are not affected by this design. During implementation these limiting conditions of operation are observed.

91-049 Rev 0 Add a new isolation valve in the auxiliary steam system and revise the FSAR accordingly. The auxiliary steam system is nonsafety related.

1. The 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 the change does not affect the design, material, and construction standards of the system. No accident precursors are affected by the change. The change does not alter, degrade, or prevent actions assumed to occur in a previously analyzed accident. The support configuration modification is adequate to restrain the system pipe due to a pipe failure for moderate energy line breaks. No safety-related component is adversely impacted by the change; therefore, accident response of safety-related equipment is not impacted in any manner. Seismic II/I analyses and the existing EQ evaluation show this modification to be acceptable.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced by this modification. The safety-related equipment previously analyzed in the FSAR is not impacted by the modification.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since no failure points or acceptance limits are altered. All design bases are unaffected by the modification.

91-078 Rev 0 Modify, replace, and add access doors for high radiation areas as described in the Technical Specifications, and revise FHA section 8.0 accordingly.

1. The 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 the design of the subject doors considered all seismic and HELB situations. High radiation area access barriers do not provide any shielding, thus, the consequences of an accident are not increased. The design of the replacement doors provides vent area for the rooms equivalent to that considered for the original HELB analysis. Therefore, there is no increase in the consequences of an accident previously evaluated in the FSAR. The controlled access barriers do not perform a safety-related function. No safety-related equipment failure is introduced by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since all mounting, seismic, stress, HELB, equipment qualification, and other design requirements continue to be met. No changes to the system, component functions, or operation which would create any new modes of failure are made.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since safety limits, setpoints, and tolerances are not affected by the changes. No failure points or acceptance limits are altered by the modification.

91-085 Rev 0 Add security grating to the nonsafety-related service water valve pits.

1. The 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 no safety-related equipment systems are affected by this change. The grating is secured to preclude failure during a seismic event.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new accident types are created by the change. This change does not affect any safety-related piece of equipment; thus, a malfunction of equipment not previously considered is not introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no equipment defined in the Technical Specification is affected by this change. No acceptance limits are increased, and no failure points are decreased for any safety-related equipment.

91-109 Install chemical cleaning connections to the PSW supply and return
Rev 0 for the computer room and the CO_2 storage tank room areas A/C 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, because only the nonsafety-related portions of the systems are affected by the change. In the event of an accident, the safety-related portion of the system required to mitigate the consequences of an accident is isolated from the non safety-related portion. The added chemical cleaning connections are passive components fabricated to the same codes and requirements as the original piping.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the worst-accident scenario of the piping added under this change is a 100 percent severance of a connection. This event has already been analyzed in the FSAR. The change does not affect any equipment important to safety during its normal operation or during the equipment malfunction. The modification complies with the same codes and standards as the existing PSW piping.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced. The change is neither addressed in the Technical Specifications nor required to be included in the Technical Specifications because only the nonsafety-related portion of the system is affected by the change.

UNIT 2 DESIGN CHANGES (NONSAFETY RELATED)

UNIT 2 DESIGN CHANGES (NONSAFETY RELATED)

86-438 Rev 0 Replace existing extension wire from 2P33 valves to the junction boxes with wire qualified to 200 degrees C.

1. The 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 this change does not affect the valve function or operation. Only the valve extension cables are being upgraded to enhance the temperature tolerance of existing valves. Plant responses to evaluated accidents 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, since the valve extension wire upgrade provides more reliable operation at high temperatures than does the existing wire. No new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification increases the reliability of the valves. No new failure modes are introduced. The new wires perform the required function.

89-064 Rev 0 Retrofill the Unit 2 cooling tower transformers containing PCBs to eliminate all possible hazards of PCB contamination. Deenergize, isolate, and retrofill the transformers before returning them to service. This change requires a revision to 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, because this modification is made during unit shutdown and does not affect any system required to maintain plant shutdown. Since the modified and derated transformers still adequately handle their current loads after cooling fans are installed, no system operation or accident response evaluated in the FSAR 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, since all equipment involved in this change has been evaluated for any malfunctions caused by loss of power to subsequent components. Since all subsequent components are not safety related, no new possibilities of failure due to loss of power are created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, 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 system or equipment important to safety is altered.

90-032 Rev 0 Install one ion chromatograph (IC) in the turbine building to monitor a feedwater sample and install another IC in the reactor building to monitor a recirc/RWCS sample for zinc content. The ICs connect to existing sample lines.

1. The 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 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.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change only adds connections to the existing sample system to supply the new ICs. The function and operation of all other systems remain the same.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety requirements are introduced or changed due to this modification. The addition of the ICs does not affect the allowable limits or failure points of any component or system.

90-058 Rev 0 Modify the portion of a 2-inch nonsafety-related drain line from the dryer/separator storage pool to the clean radwaste sump to reduce clogging.

1. The 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 this design change does not affect the operation of any safety-related system. System reliability and operability are not degraded. Protection features are unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change does not add or delete any interfaces with existing systems. Hazardous materials are not added or relocated, and the possibility of a new or different radioactive release event is not created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the existing limiting conditions for operation as described in the HNP-2 Technical Specifications are not affected by this design.

90-119 Rev 0 Provide a high and low level annunciation on diesel fuel day tanks A and C using existing level switches 2R43-N005 A and C.

1. The 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 the annunciator logic functions as previously accounted for in the FSAR and does not affect any safety equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification affects only nonsafety-related equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits are increased and no failure points are decreased.

90-143 Rev 0 Replace the existing SPDS graphics generator, remove the screen copier, and reroute the video printing capabilities to a more reliable version.

1. The 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 SPDS is not a safety-related system and has no effect on the design basis accidents. The changes upgrade the existing SPDS components. Operation or failure of the system affected by the changes does not increase the consequences of any previously evaluated accidents. System performance is not altered by the changes. No equipment important to safety is affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since upgrading the system per the changes does not create any new unanalyzed accident possibilities. Failure of the system does not affect safety-related equipment because the system is nonsafety related and has no direct physical connection to safety-related equipment.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since SPDS is not addressed in the Technical Specifications nor does the system affect any Technical Specifications requirements. Consequently, the design does not reduce the Technical Specifications safety margin.

90-163 Rev 0 Replace the original electronic controllers and manual/automatic stations for the feedwater and reactor recirculation systems with new controllers of a different type and 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, because the new controllers are more reliable. The systems affected by the changes are not required to mitigate consequences of an accident evaluated in the FSAR. The change decreases the probability of a failure of the controllers being replaced. Seismic integrity of the affected panels is not impacted by the changes. The replacement maintains the same functions as the original controllers. System response is not adversely affected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the systems continue to perform their original design functions with increased reliability of operation due to replacement of the controllers.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety limits or setpoints of any safety equipment are affected. No plant transient response is adversely affected. No acceptance limits are increased and no failure points are decreased such that the margin of safety is reduced.

91-086 Rev 0 Add security grating to the nonsafety related service water valve pits.

1. The 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 no safety-related equipment systems are affected by this change. The grating is secured to preclude failure during a seismic event.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new accident types are created by the change. This change does not affect any safety-related piece of equipment; thus, a malfunction of equipment not previously considered is not introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no equipment defined in the Technical Specifications is affected by this change. No acceptance limits are increased, and no failure points are decreased for any safety-related equipment.

92-119 Rev 0 Install three (3) access ports in the Control Building Exhaust Duct to provide the necessary vent area for natural convection.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. An evaluation of essential equipment for the temperatures resulting from a loss of control building HVAC is determined to be acceptable. The change limits the temperature in the control building following a loss of HVAC, thus limiting the consequences of a loss of control building HVAC. The malfunction probability for the system is not increased because the modification is only used after a loss of ventilation from other causes. The system functions as before during 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, since no seismic II/I concerns are created by the change. The new access doors added by the change are not used during normal operations. The change affects only the nonsafety-related portion of the system, therefore no new safety-related equipment malfunction possibilities are created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the portion of the system affected by the change is not safety-related, nor is it discussed in the Technical Specifications.

UNIT 1/COMMON AS-BUILT NOTICES

UNIT 1/COMMON AS-BUILT NOTICES

86-1016 Rev 0 — Add "control room communications" to the Unit 2 communication system drawings and revise Unit 2 FSAR Figure 9.5-3. This is a documentation change to nonsafety-related communication system 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 change does not impact any other system components, no system function is compromised, equipment operability is not affected, and no equipment important to safety is affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. No accident possibilities are created by the addition of the control room communication stations. No equipment important to safety is affected by the activity so no malfunction possibilities are created.

3. The margin of safety as defined in the basis for Technical Specifications is not reduced due to this change because no system logic changes occur as a result of the change.

92-152 Rev 0 — Revise design documents to reflect corrected refueling floor load weight data per the vendor's and other design documents.

1. The 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 this change corrects the floor loading weights for equipment on the refueling floor and does not entail any physical or operational modifications to the plant. The movement paths of refueling floor items are not changed by this ABN. The change does not increase the consequences or probability of an equipment drop accident as discussed 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, since no new accident scenarios are generated by this change which documents existing plant design conditions. No new modes of failure are created by the change.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the ABN does not modify or change Technical Specification safety limits or safety system settings. All Technical Specification limiting conditions for operation and surveillance requirements are maintained.

MM-079 Rev 0

Revise drawing H-16888 to address the correct stress analysis problem number. Revise drawing H-26919 to correct an erroneous column line designator.

1. The 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 the change in drawing H-16888 does not alter the design as shown on the drawing. The correction in drawing H-26919 does not alter the piping configuration as shown on the drawing.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes are editorial, and create no new accident scenarios and introduce no new failure modes of operation.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the changes are editorial, and therefore, do not affect the margin of safety as defined in the basis for any Technical Specifications.

UNIT 2 AS-BUILT NOTICES

UNIT 2 AS-BUILT NOTICES

91-188 REV 0 Revise the Unit 2 core spray system (E21) stress isometric piping drawing and FSAR Figure 3.9-34 to add a support number for an unidentified small bore pipe support in 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, because this change has no impact on the operability of the system, does not affect the components required for an accident mitigation, and does not affect any existing failure analysis 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, since the additional pipe support does not impact the performance or operation of the core spray system. The evaluation of the as-found pipe support was determined to have no significant impact on the piping system. Therefore, no new modes of failure are introduced by this ABN.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since because no failure points, safety limits, or surveillance requirements for operation of the core spray system are affected by this change.

91-299 Rev 0 Revise the Unit 2 torus water cleanup system drawings to reflect certain control valves in the system are normally closed and their associated solenoid valve is de-energized.

1. The 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 this change requires certain control valves to be normally closed and de-energized. The closed position is appropriate for an accident condition. The routine operation of the system is not required to ensure the function of any equipment important to safety. The only safety function of the system is isolation of the containment, which is assured by the valves being in a closed position. The ABN changes do not reflect an operational misuse of equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this ABN does not change any valve's interface with other plant equipment. Not routinely operating the torus purification system (plant operating) has no safety impact on any other system and does not introduce any new accident mechanisms. The ABN establishes no new failure modes.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the ABN indicates certain valves in the system are manually operated to the closed position. With the valves in the closed position, they are preset to mitigate a containment radiation leak. Therefore, no reduction in the margin of safety exists. No acceptance limits are increased, and no failure points are decreased.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATIONS

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATIONS

10B-016 Rev 0 Revise Unit 1 FSAR section 10.3 and Unit 2 FSAR sections 3.3, 9.1 and 12.2 addressing the spent fuel pool water level. Editorial changes are also made to enhance the clarity of the FSARs, achieve format consistency, and correct typographical errors.

1. The probability of occurrence or the consequences of an accident or malfuntion of equipment important to safety previously evaluated in th FSAR is not increased, because the revisions to the FSARs do not involve any changes to plant equipment or operation. Calculations of the radiological consequences of changing the minimum water depth covering irradiated fuel during storge show exposures are below the acceptance criteria for a postulated fuel handling accident. Calculations of a plank missile falling through a tornado roof vent and into the fuel pool show that missle impact load on the fuel racks is less than the specified design allowable load. The changes do not affect the physical configuration of the plant or alter the mode of operation of any plant equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since these changes do not introduce a new mode of operation and do not affect the operation of any equipment within the plant. Plant configuration is not altered by these changes.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since changing the minimum required water depth covering irradiated fuel assemblies seated in the fuel storage racks involves no significants increase in the amount, or change in the types, of any effluents that may be released offsite. There is no significant increase in individual or cumulative occupational radiation exposure. Therefore, a margin of safety is not affected by this change. The editorial changes do not affect the margin of safety. Equipment performance and safety analysis assumptions are not changed in any way.

10B-024 Rev 0 Revise the Unit 1 FSAR to address removal of the floor plugs located at 130 ft elevation to the torus on the west side of the 130 ft elevation on both units and to open the door to the elevator area vestibule on Unit 1.

1. The 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 the change establishes the vent flow paths between the torus room and reactor building 130 ft elevation rooms. The rooms have been evaluated for the same accidents, and the calculations show that the resulting environmental conditions are enveloped by the original analysis. No new mechanism for an accident is created in either room. The change does not affect the design, material, construction specifications, and standards of any system in the rooms. No accident affecting the 130 ft elevation will cause the torus room to exceed the accident conditions previously predicted for that area, and the safety-related equipment located in the reactor building on the 130 ft elevation is designed to withstand the accidents occurring in their corresponding rooms. This change does not affect environmental parameters. Therefore, the safety-related equipment required to mitigate an accident will function as designed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no change in environmental effects occurs from this FSAR revision. Potential impingement of any fluid leakage through the hatch will not damage safety-related equipment, because the torus room is designed to be flooded by a greater amount of fluid than is credible from any leak on the 130 ft elevation. The change does not add or delete any interface with any system or component important to safety, and no new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no existing LCOs in the Units 1 and 2 Technical Specifications are affected by this change. The changes to the environmental conditions of the subject rooms are enveloped by the design accident conditions.

<u>10C-009</u> Rev 0 Revise the Unit 1 FSAR to state that the commercial oxygen analyzers monitor oxygen content in the drywell rather than in the containment and the hydrogen/oxygen analyzers monitor oxygen in the torus.

1. The 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 the change only clarifies the FSAR text. Monitoring the containment oxygen concentrations or the operation and function of the CAD system following an accident, or due to any malfunction of equipment, is not affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change does not affect monitoring the containment oxygen concentrations, or operation and function of the CAD system. No new accident possibilities are created, and no new failure modes are introduced by this change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no LCOs or surveillance requirements in the Technical Specifications are affected by this change. Technical Specifications requirements are satisfied by existing plant procedures.

<u>10C-013</u> Revise the Unit 1 and Unit 2 FSARs to address the fuel pool
Rev 0 pool cooling system temperature 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, because no accident analysis in either FSAR is affected by fuel pool temperature. This change does not alter the design intent, function and operation of the fuel pool cooling system. No system, structure, or component required to mitigate the consequences of an accident, or due to any malfunction of equipment, is affected by this change. No change to any plant equipment is made, and no equipment important to safety is affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the design intent, function, and operation of the system is not affected by the change. No new accident possibilities or new modes of failure are introduced by the change.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because no safety limits or failure points are affected by the change.

<u>10C-028</u> Rev 0 Update a listing in the Unit 1 FSAR of radioactive sources used by plant personnel for sample analysis of instrument calibration.

1. The 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 the change does not affect any safety system. The equipment concerned is not included in any accidents previously evaluated in the FSAR and does not play a role in mitigating the consequences of these accidents. This change has no effect on the design, function, operation, or reliability of any equipment important to safety or any nonsafety-related equipment which interfaces with 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, since the change does not alter the design or method of operation of any plant safety system or component as evaluated in the FSAR. It does not introduce any new accident scenarios or mechanisms. The new sources are controlled by procedures in the same manner as previous sources such that no new accident possibilities are created. No new failure modes are created by the change. The new sources would fail in like manner as previous sources such that no new malfunction possibilities of equipment important to safety are created.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since no failure points are decreased and no acceptance limits are increased as a result of this change. No safety settings or LCOs are exceeded due to the change. The calibration equipment affected by this change is not contained in the Technical Specifications.

11A-002 Update Unit 1 FSAR tables and add a table to show the location
Rev 0 of the highest stress points on the main steam piping.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those evaluated previously in the FSAR. The stress levels and fatigue usage factors associated with this change are shown to be within allowable limits.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this change does not involve any equipment. The change involves revised stresses in the main steam piping, which are within allowable limits.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because the Technical Specifications do not specifically address main steam line stresses. The revised main steam piping stresses are within ASME Code allowable limits.

11A-008 Change the battery discharge limit stated in Unit 1 FSAR sections
Rev 0 8.5.3 and 8.6.3 from "1.75-V final cell voltage" to "1.75-V per cell average," consistent with ANSI/IEEE Standard 450-1987, section 6.4, and Unit 1 SED.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those evaluated previously in the FSAR, because this change is a clarification to the FSAR consistent with the equipment design requirements. No physical change is made to any equipment.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this change to the FSAR documents equipment design requirements which are still met.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because this change supports the design basis for battery system (R42). The design, operation, and function of battery system (R42) are maintained.

11A-026 Rev 0 Revise both units FSARs to clarify statements describing when the FPCC system is in operation. Add descriptions of provisions made for temporary fuel pool monitoring.

1. The 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 no accident analysis in the FSARs is affected by the fuel pool temperature. Procedural controls for temporary instrumentation and temperature limits assure temperature limits are maintained. No system, structure or component required to mitigate the consequences of any accident or malfunction of equipment is affected. The design intent, function and operation of the system are not affected by the changes.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes do not affect the design intent, function or operation of the system. No new modes of failure are introduced by the changes.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no safety limits or failure points are affected. No system design described in the Technical Specifications is impacted by the changes.

F8A-005 Rev 0 Revise FHA to correct erroneous combustibility information for the Unit 1 frisker building and address a separate fire area for the calibration room and respirator decontamination room.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR did not increase, because the change reduces the combustible loading for the subject area, thus reducing the consequences of a fire in that area. The area has been reorganized per FHA standards. No equipment important to safety is located in or near the subject fire area.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change reduces the combustible loading for the subject fire area. Since there is no equipment important to safety in the fire area, the possibility of a malfunction of such equipment due to combustibility modification in the area does not exist.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the reduction in combustible loading in the subject area has no impact on the margin of safety defined in the Technical Specifications.

UNIT 2 10 CFR 50.59 SAFETY EVALUATIONS

UNIT 2 CFR 50.59 SAFETY EVALUATIONS

10B-011 Rev 0 Revise the Unit 2 FSAR section 8.3.1 to agree with figure 8.3-2. This change takes credit for the plant procedural requirement of keeping at least one of the two removable links feeding a 600-V bus open to prevent parallel feeds.

1. The 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 the number of operator errors required to occur to allow feeding a single 600-V emergency bus from multiple 4-kV buses has not decreased from that previously evaluated. The equipment lineup under normal conditions is unchanged.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the number of operator errors required to occur to allow feeding a single 600-V emergency bus from multiple 4-kV buses has not decreasd from that previously evaluated. The equipment lineup under normal operating conditions is unchanged.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the number of operator errors required to occur to allow feeding a single 600-V emergency bus from multiple 4-kV buses has not decreased from that previously evaluated.

10B-012 Rev 0 Add FSAR figure references to FSAR text, correct typographical errors, and change the verb tenses to be consistent with the status of the plant.

1. The 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 the subject changes do not affect any equipment function or mode of operation. These changes are editorial in nature and only clarify and enhance the existing text.

2. The possibility of an accident or malfunction of a different type than evaluated previously in the FSAR is not created, since the subject changes do not affect any equipment function or mode of operation. These changes are editorial in nature and only clarify and enhance the existing text.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the subject changes do not affect any equipment function or mode of operation. These changes are editorial in nature and only clarify and enhance the existing text. None of the changes affect the Technical Specifications.

10B-016 Rev 0 Revise Unit 1 FSAR section 10.3 and Unit 2 FSAR sections 3.3, 9.1 and 12.2 addressing the spent fuel pool water level. Editorial changes are also made to enhance the clarity of the FSARs, achieve format consistency, and correct typographical errors.

1. The probability of occurrence or the consequences of an accident or malfuntion of equipment important to safety previously evaluated in th FSAR is not increased, because the revisions to the FSARs do not involve any changes to plant equipment or operation. Calculations of the radiological consequences of changing the minimum water depth covering irradiated fuel during storge show exposures are below the acceptance criteria for a postulated fuel handling accident. Calculations of a plank missile falling through a tornado roof vent and into the fuel pool show that missle impact load on the fuel racks is less than the specified design allowable load. The changes do not affect the physical configuration of the plant or alter the mode of operation of any plant equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since these changes do not introduce a new mode of operation and do not affect the operation of any equipment within the plant. Plant configuration is not altered by these changes.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since changing the minimum required water depth covering irradiated fuel assemblies seated in the fuel storage racks involves no significants increase in the amount, or change in the types, of any effluents that may be released offsite. There is no significant increase in individual or cumulative occupational radiation exposure. Therefore, a margin of safety is not affected by this change. The editorial changes do not affect the margin of safety. Equipment performance and safety analysis assumptions are not changed in any way.

10B-025 Revise the Unit 2 FSAR to address removal of the floor plugs
Rev 0 located at 130 ft elevation to the torus on the west side of the 130 ft elevation on both units and to open the door to the elevator area vestibule on Unit 1.

1. The 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 the change establishes the vent flow paths between the torus room and reactor building 130 ft elevation rooms. The rooms have been evaluated for the same accidents and the calculations show that the resulting environmental conditions are enveloped by the original analysis. No new mechanism for an accident is created in either room. The change does not affect the design, material, construction specifications, and standards of any system in the rooms. No accident affecting the 130 ft elevation will cause the torus room to exceed the accident conditions previously predicted for that area, and the safety-related equipment located in the reactor building on the 130 ft elevation is designed to withstand the accidents occurring in their corresponding rooms. This change does not affect environmental parameters. Therefore, the safety-related equipment required to mitigate an accident will function as designed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no change in environmental effects occurs from this FSAR revision. Potential impingement of any fluid leakage through the hatch will not damage safety-related equipment, because the torus room is designed to be flooded by a greater amount of fluid than is credible from any leak on the 130 foot elevation. The change does not add or delete any interface with any system or component important to safety, and no new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no existing LCOs in either unit's Technical Specifications are affected by this change. The changes to the environmental conditions of the subject rooms are enveloped by the design accident conditions.

10C-004 Rev 0 Revise the Unit 2 FSAR table 8.3-15 to document the correct emergency bus number for the possible load distribution on buses.

1. The 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 the editorial change corrects a bus number to bring the affected table into agreement with other plant design documents. The loads identified in the FSAR table have not been changed.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the editorial change corrects a bus number to bring the affected table into agreement with other plant design documents. The loads identified in the FSAR table have not been changed.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced because the change is editorial and thus Technical Specifications is not affected.

10C-011 Rev 0 Part 1 Update (in the Unit 2 FSAR) listings of radioactive sources which are used for sample analysis or instrument calibration by plant personnel.

1. The 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 the change does not affect any safety systems. The equipment concerned is not included in any accidents previously evaluated in the FSAR. The sources involved in this change do not play a role in mitigating the consequences of an accident previously evaluated in the FSAR. The change does not affect the design, function, operation, or reliability of any equipment important to safety. No nonsafety-related equipment which interfaces with equipment important to safety 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, since no new accidents scenarios or mechanisms are introduced by this change. The new sources added by this change are controlled by procedures in the same manner as previous sources such that no new accident possibilities are created.
The change in calibration sources under consideration does not affect on the function, operation, or reliability of any equipment important to safety. The new sources would fail in like manner as previous sources such that no new malfunction possibilities of equipment important to safety are created.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no failure points are decreased and no acceptance limits are increased as a result of this change. No safety settings or LCOs are exceeded.

<u>10C-011</u> Rev 0 Part 2 Revise the Unit 2 FSAR to address plant health physics program administrative changes to reflect current plant procedures and department organization. Incorporate editorial changes.

1. The 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 the changes are administrative and editorial in nature and do not involve any changes to plant equipment or operation. These changes do not affect the physical configuration of the plant or alter the mode of operation of any plant equipment.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes do not introduce a new mode of operation and do not affect the operation of any equipment within the plant. Plant configuration is not being altered by these changes.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the changes are administrative and editorial in nature and make the FSAR consistent with approved plant procedures. The level of compliance with licensing commitments is not affected by the changes. The level of management oversight activities is not reduced.

10C-012 Rev 0 Revise Unit 2 FSAR section 9.5.6.4 to address the diesel-generator starting air receiver tank design pressure and the test pressure to be consistent with the plant procedure and the vendor manuals.

1. The 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 the change addresses the actual operating pressure values which are more conservative than the value addressed in the FSAR. The revised test procedure is still within 1.5 times the unchanged design pressure as required by the ASME Code. This change does not require any physical change to equipment and does not affect the 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, since no physical change to any equipment is made. The operation of no system or component is not affected by this change.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no failure points or acceptance limits are affected. The change does not affect the operation of any system or component. No physical change to equipment is made by this change.

10C-016 Rev 0 Reword the Unit 2 FSAR text to clarify the operation of the turbine building PSW isolation valve logic.

1. The 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 the rewording does not increase the probability of an accident previously evaluated. The design intent remains unchanged, and no equipment function, requirement, or demand is affected by the change.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change does not introduce new single failures or a change that would potentially create a scenario not considered in the FSAR. System logic remains unchanged.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change has no impact on physical parameters or conditions such that a reduction in margin of safety would occur.

10C-019 Revise the Unit 2 FSAR text addressing the MCRECS to: reflect the
Rev 0 exhaust fans are not normally operated; address isolation and purge modes of the MCRECS; and make editorial changes.

1. The 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 removing the MCR exhaust fans from operation does not adversely affect the pressurization of the MCR in the normal mode. During the pressurization mode, the exhaust fans are not operated to ensure required positive pressure is maintained. Operation of the system using only one AHU is acceptable, because the air-conditioning subsystem is designed for personnel comfort, and the required positive pressure will still be maintained in the MCR during the normal and pressurization modes. Addition of the isolation and purge modes in the text describes methods of operation within the design of the MCRECS accounted for in plant procedures but not listed in the FSAR text. The editorial changes do not affect system operation.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes clarify the operating modes of the MCRECS. The functions of the system under accident conditions are not changed. The revisions to the operation of the MCRECS do not create any new modes of failure. The environment within the MCR remains within acceptable temperature and RH limits.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the required positive pressure for the MCRECS following an accident is provided by one of the two 100% capacity filter train booster fans. The condition of air entering the HEPA filter carbon adsorber remains within acceptable limits.

10C-023 Revise the Unit 2 FSAR text to specify the removal of the kitchen
Rev 0 from the area serviced by the MCRECS and to state that a 30-day supply of food is not kept in the control 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, because these changes do not affect the operation of the MCRECS.

None of the systems or equipment necessary to prevent an accident is affected by the changes. Under accident conditions, the system is automatically transferred to the pressurization mode. All MCR actions necessary to mitigate an accident are taken in the areas serviced by the MCRECS. The changes do not affect the consequences in case the control room becomes uninhabitable due to malfunction of an MCRECS component.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the changes do not affect the function or operation of the MCRECS or other system necessary for the prevention or mitigation of an accident. Operation of system components outside their design is unchanged.

3. The margin of safety as defined in the bases for Specifications is not reduced, since MCR temperature has been maintained well below Technical Specifications temperature limits since implementation of these changes. Surveillance tests have shown adequate pressurization per Technical Specifications requirements.

10C-024 Rev 0 Revise the Unit 2 FSAR text to reflect current RPV surveillance sampling test results, new limits, and methods used. Incorporate the Technical Specifications table specifying the RPV material surveillance schedule into the FSAR. The new limits and relocation of the table have been approved by the NRC.

1. The 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 test results show that the probability of occurrence of an accident previously evaluated is not increased. New pressure/temperature limits generated from these test results ensure the RPV will not experience brittle fracture. The consequences of such a failure are unaffected. Relocation of a table for the RPV material surveillance schedule to the FSAR from the Unit 2 Technical Specifications, together with the Technical Specifications requirement that the specimen be removed and examined to determine changes in the material properties, is sufficient to ensure the schedule adheres to 10 CFR 50 requirements.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the new limits were calculated using methods per the approved codes and standards. Therefore, the possibility of vessel failure due to incorrect operating limits is not introduced. The only equipment affected by this change is the RPV. No new modes of operation are introduced for any other equipment.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the new limits are based on recent RPV material specimen and approved methodology for analysis of the specimen. Adherence to the limits will prevent brittle feature of the RPV. Relocation of the surveillance schedule to the FSAR will not reduce the margin of safety, because the evaluation of the RPV material is not altered by this change.

11A-004 Rev 0 Revise the Unit 2 FSAR text, section 6.3.2.2.5, per Licensing Action Request 92-023. The identified change pertains to a switch setpoint that monitors the discharge pressure of the ECCS jockey pump and alarms in the control room upon pressure reaching a defined low value below the pump setpoint.

1. The probability of occurrence or the consequences of an an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because this change is to the switch identified in the SED as nonsafety related. This change documents the function of the switch which is unchanged.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because the switch referred to in this change is not modified. Only the setpoint is changed. The functional requirements of the system are still met.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because this change consists of a setpoint change to a nonsafety-related system and component for which no credit is taken in the accident analysis or safety evaluation.

11A-005 Rev 0 Delete reactor feedwater check valves 2B21-F010A, F010B, F077A and F077B; torus drainage and purification effluent valves 2G51-F011 and F012; and recirculating pump sprinkler supply valves 2T43-F159 and F160 from Unit 2 FSAR section 6.2.1.2.2 and table 6.2-6 as sources of bypass leakage. These valves are not contributors to the primary containment leakage as previously documented in Technical Specifications Amendment 101 and DCR 2-78-52. Additional editorial changes are also made.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because no changes to equipment important to safety were made.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change reflects previously approved revisions to the Unit 2 Technical Specifications. No new modes of operation are introduced; plant configuration is not affected.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because this change was made to establish consistency with the Technical Specifications which Technical Specifications are not affected by this change.

11A-009 Rev 0 Upgrade the Unit 2 FSAR to include the latest system information and electrical grid stability study. Update and improve the wording of section 8.2.2.3 to reflect criteria and FSAR interpretations that must be used in analyses and calculations for grid stability.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because the criteria of GDC 17 and 18, Regulatory Guide 1.6, the safety evaluation report (NUREG-0411), and the NRC generic letter dated August 8, 1979, continue to be met.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this is an update to the FSAR to incorporate more recent system information and stability study results. There is no physical change to the plant and thus, no degradation of onsite power supply to equipment important to safety.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because the bases for Unit 1 Technical Specification 3.9.A.1 and Unit 2 Technical Specification 3/4.8.1, regarding grid stability, continue to be met.

11A-017 Rev 0 Revise Unit 2 FSAR section 10.2A.7 to clarify the context of applicable steam valves by adding "EHC controlled" between "all" and "steam valves."

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because this is an editorial change which provides consistency between this subsection and the remainder of section 10.2A of the Unit 2 FSAR (affecting the nonsafety 2N32 turbine overspeed protection system). No safety-related system or equipment is affected by this change.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this is an editorial change to the FSAR and does not introduce or affect the operation of any equipment.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because this is an editorial change to the FSAR which does not affect the Technical Specifications.

11A-018 Rev 0 Correct the Units 1 and 2 FSARs to reflect the existing plant configuration consistent with existing elementary drawings. Section 4.6.3 of the Unit 1 FSAR and section 5.5.5.2 of the Unit 2 FSAR state that "switches at 90 percent open position turn off the open light for valve testing (MSIV)." Units 1 and 2 design drawings show the limit switch development at 90 percent open position turns on the close light, while the open light stays on.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased above those previously evaluated in the FSAR, because this ADIF corrects the Units 1 and 2 FSARs to reflect the existing plant configuration and design documentation.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, because this ADIF clarifies the FSAR description of MSIV position indicating signals consistent with existing design documentation and plant configuration.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, because the FSAR changes which affect the description of control panel light indication for MSIV valve operational testing are not covered in the Technical Specifications.

F8A-006 Rev 0 Revise the FHA to correct erroneous combustibility information and modify the description of the Unit 2 frisker 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, because the change reduces the combustible loading for the subject area, thus reducing the consequences of a fire in that area, with no impact on the occurrence of a fire. No equipment important to safety is located in or near the subject fire area.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the change reduces the combustible loading for the subject fire area. Since there is no equipment important to safety in the fire area, the possibility of a malfunction of such equipment due to combustibility modification in the area does not exist.

3. The margin of safety as defined in the bases for Technical Specifications is not reduced, since the reduction in combustible loading in the subject area has no impact on the margin of safety defined in the Technical Specifications.

UNIT 1 TEST OR EXPERIMENT REQUESTS

91-008 Rev. 0 Determine the location of failed fuel in the Unit 2 core using flux tilt techniques.

1. The 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 the only accident analysis identified in the FSAR that directly involves control rods at greater than 30 percent power is "Continuous Control Rod Withdrawal During Power Range Operation." The initiating cause of this event is a procedural violation whereby the operator continuously withdraws the highest worth control rod until further withdrawal is inhibited by the RBM. The procedure governing this activity provides specific directions for which control rods are to be inserted and withdrawn. Deviations from that sequence are not permitted, and control rods are not to be withdrawn beyond their pretest position.

   The consequences of an RWE were analyzed by GE as part of the ARTS Program to determine the appropriate RBM settings. The RBM is a plant system designed to prevent rod withdrawals at high powers which could result in failure of the fuel cladding. Thus, it mitigates the consequences of an RWE at core thermal power greater than 30 percent. Both channels of the RBM will be operable during the flux tilt test; therefore, the radiological consequences on an RWE will be no worse than those analyzed for the ARTS Program and referenced in the FSAR. The safety limit MCPR will remain unchanged and the steady state Operating Limit MCPR will be at least 0.05 greater than assumed in the ARTS analysis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since fuel cladding failures are not explicitly described in the FSAR as a malfunction of equipment important to safety; however, the FSAR does describe plant systems designed for the sole purpose of detecting and mitigating the consequences of fuel failure during an operating cycle. Flux tilting testing involves control rod movement, which is similar to rod movement for sequence exchanges, and the monitoring of offgas activity. Additional deterioration of a failed fuel rod resulting from this activity will be small compared to other normal operational events, since the power changes associated with flux tilt testing will be smaller and less sudden.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since fuel assemblies near the control rods that are inserted and withdrawn will undergo a mild xenon transient. A 3D simulator code, which can model this transient, will be used to analyze the expected sequence and duration of rod moves to ensure compliance with thermal limits throughout this activity. Systems which control, monitor, or minimize the release of radioactive effluents to unrestricted areas will remain operable as required by the Technical Specifications.

92-001 Rev 0 Determine the ability of the MCRECS to achieve and maintain Technical Specifications requirements (0.1 inches positive pressure-water gauge) with respect to the outside atmosphere during the pressurization mode of operation with no air handling units in 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, because the MCRECS performs no preventative function for any kind of design basis event. This test does not involve any activity which increases the likelihood of occurrence of a radiological event. The MCRECS will be operable immediately prior to the performance of this activity and unit operators made aware that, during the performance of this test, no air handling units will be running. Operators will be instructed to start one or more of the air handling units should the need arise to ensure design functions are met.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the MCRECS performs no preventative function for any kind of design basis event. This test does not involve any activity which increases the likelihood of occurrence of a radiological event. The modes of operation of the MCRECS and the manual starting and stopping of the units is within the design basis of the system. The failure of an air handling unit to manually start is covered by existing analysis.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specification basis for the MCRECS deals with the ability of the system to maintain control room ambient air temperature within maximum allowable limits for equipment (less than 105 degrees F) and to maintain the control room habitable for personnel under accident conditions. Operators will be made aware that no air handling units will be running during the performance of this test and instructed to place the air handling units in service should the control room air temperature increase to 95 degrees F.

92-002 Rev 0 Evaluate the validity of high level alarms for the HPCI system's inlet and exhaust drain pots by installing temporary sight gauges and monitoring the drain pot levels during system operation.

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this activity is accomplished by connecting suitable sight gauges to the existing drain and vent valves for the applicable drain pots. The HPCI system will then be operated in the Test mode per approved plant procedures. The sight gauges will be monitored while the system is in operation, thus allowing for an evaluation of any alarms which might come in during the run. The sight gauges will be removed when the run is complete and HPCI restored to standby configuration per approved plant procedures. Trips and initiations are unaffected by this activity. Operability will be determined by existing surveillances.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the sight gauges are designed to withstand the existing operating characteristics of the HPCI system; therefore, no new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no operating limits described in the Technical Specifications are affected by this activity.

92-003 Rev 0 Determine the acceptability of installing permanent prefilters in the control room return air system by performing an air flow test with temporary prefilters 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, because the addition of filter material to the suction of air handling units 1Z41-B003A, B, and C will cause a small increase in the pressure drop at the suction vents but not prevent the MCREC system from performing its design functions. Changes in air flow and fan power consumption will be recorded and provided to the AE for use in developing a permanent design.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the small increase is pressure drop at the suction vents will have no effect on system operation in the shot term. Should the pressure drop be too high, the life of the fan motors for the air handling units will decrease from long-term use of the filters. This activity will not affect the design functions of the MCREC system.

3. The margin of safety as described in the Technical Specifications will be maintained as all applicable statements will be adhered to.

92-005 Rev 0 Determine the optimum liquid level for the feedwater heaters by adjusting the internal liquid level so as to maximize feedwater heating with minimum usage of extraction steam.

1. The 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 the feedwater heaters have two means of internal level control, a normal (low) level controller and a high level controller. Qualified site technicians will make the level adjustments using the low level controller which provides the standard means of heater level control. Level adjustments will be made in small increments with a stabilization period between each adjustment. Should the low level control valve fail closed or the upper operating limit of the low level controller be exceeded by an adjustment, the high level control valve will

open to maintain liquid level. Should the high level control valve fail to open, the heater will isolate on high level via turbine water induction logic and procedures governing the loss of a feedwater heater and/or feedwater heating entered as applicable. Loss of feedwater heating is a DBA and has been fully 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, since the low and high level controllers are located in close proximity to each other so the operation of both controllers can be monitored simultaneously as level adjustments are made by qualified site technicians. Should level fluctuations occur within the heater, the technician can take manual control of level through the appropriate annunciator response procedures and minimize the perturbation.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not address the control or maintenance of the internal liquid level of the feedwater heaters.

92-007 Rev 0 Determine the unit's gross heat rates and corrected gross heat rate with data acquired using test instrumentation under controlled operating 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, because test instrumentation will be installed in parallel with existing plant instrumentation. Most of these instruments provide no active function, only indication signals to control room recorders. However, three of these instruments, the feedwater flow transmitters and the control rod drive flow transmitter, provide inputs to the process computer for the calculation of rated thermal power. The installation and removal of test instrumentation will interrupt the signal to the computer for a short period of time. The temporary loss of input will be minimized by working with only one transmitter at a time, coordinating the activity with shift personnel so that average values can be substituted into the heat balance. Each of these values can be substituted into the heat balance. Each of the parameters can be monitored by use of alternate indications which are available in the control room.

This activity required the unit be operated as close to design conditions as possible. Condenser vacuum will be set as close to 3.5 inches Hg as possible by turning cooling tower fans on and off to raise or lower circulating water temperatures as needed. Identified cycle steam and feedwater losses will be isolated where possible, and the level in the condenser hotwell will be set at the maximum level that can be monitored from the control room with condensate makeup isolated.

The raising of hotwell level and isolating of condensate makeup allows the quantification of unidentified losses by measuring the change in hotwell level during the course of the test run. It poses no threat to unit operation as operator intervention can restore makeup from remote locations should the need arise.

The isolation of identified cycle losses may mean the closure of some auxiliary and/or drain valves to obtain the most leaktight configuration possible. Closure of some of the valves may prevent some automatic functions intended for equipment protection from occurring. Those posing the greatest concern are the motor-operated isolation valves for feedwater heater high level control. Should it be necessary to close one or more of these valves, failure of the low level control valve to the closed position would cause the heater to isolate on high level. The worst-case scenario is that the associated level transient may cause several other heaters to isolate, resulting in a loss of feedwater heating. This type of even is fully analyzed by the FSAR, and the accident analysis is unaffected.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since contingencies to be provided to prevent possible isolation of feedwater heaters and minimize potential level transients include stationing an I&C technician at the heater panel to take manual control of the heater, using annunciator response procedures, and an operator to return the high level control line to service should conditions warrant. Test activities will be terminated in such an event. Should a heater isolate the unit, operators would respond according to procedures governing the loss of feedwater heating. The posting of technicians and operators at the heater panel decreases the possibility and consequences of a malfunction by providing immediate intervention capability which is not available under normal operating conditions

3. The margin of safety is not reduced, since the instrumentation paralleled are not associated with the Technical Specifications. The closure of auxiliary valves for cycle isolation is not addressed in the Technical Specifications.

UNIT 2 TEST/EXPERIMENT REQUESTS

UNIT 2 TEST/EXPERIMENT REQUESTS

92-001 Rev 0 Determine the ability of the MCRECS to achieve and maintain Technical Specifications requirements (0.1 inches positive pressure-water gauge) with respect to the outside atmosphere during the pressurization mode of operation with no air handling units in 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, because the MCRECS performs no preventative function for any kind of design basis event. This test does not involve any activity which increases the likelihood of occurrence of a radiological event. The MCRECS will be operable immediately prior to the performance of this activity and unit operators made aware that, during the performance of this test, no air handling units will be running. Operators will be instructed to start one or more of the air handling units should the need arise to ensure design functions are met.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the MCRECS performs no preventative function for any kind of design basis event. This test does not involve any activity which increases the likelihood of occurrence of a radiological event. The modes of operation of the MCRECS and the manual starting and stopping of the units is within the design basis of the system. The failure of an air handling unit to manually start is covered by existing analysis.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specification basis for the MCRECS deals with the ability of the system to maintain control room ambient air temperature within maximum allowable limits for equipment (less than 105 degrees F) and to maintain the control room habitable for personnel under accident conditions. Operators will be made aware that no air handling units will be running during the performance of this test and instructed to place the air handling units in service should the control room air temperature increase to 95 degrees F.

92-002 Rev 0 Evaluate the validity of high level alarms for the HPCI system's inlet and exhaust drain pots by installing temporary sight gauges and monitoring the drain pot levels during system operation.

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this activity is accomplished by connecting suitable sight gauges to the existing drain and vent valves for the applicable drain pots. The HPCI system will then be operated in the Test mode per approved plant procedures. The sight gauges will be monitored while the system is in operation, thus allowing for an evaluation of any alarms which might come in during the run. The sight gauges will be removed when the run is complete and HPCI restored to standby configuration per approved plant procedures. Trips and initiations are unaffected by this activity. Operability will be determined by existing surveillances.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the sight gauges are designed to withstand the existing operating characteristics of the HPCI system; therefore, no new modes of failure are introduced.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no operating limits described in the Technical Specifications are affected by this activity.

92-003 Rev 0 Determine the acceptability of installing permanent prefilters in the control room return air system by performing an air flow test with temporary prefilters 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, because the addition of filter material to the suction of air handling units 1Z41-B003A, B, and C will cause a small increase in the pressure drop at the suction vents but not prevent the MCREC system from performing its design functions. Changes in air flow and fan power consumption will be recorded and provided to the AE for use in developing a permanent design.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the small increase is pressure drop at the suction vents will have no effect on system operation in the shot term. Should the pressure drop be too high, the life of the fan motors for the air handling units will decrease from long-term use of the filters. This activity will not affect the design functions of the MCREC system.

3. The margin of safety as described in the Technical Specifications will be maintained as all applicable statements will be adhered to.

92-004 Rev 0 Use flux tilt testing techniques to determine if the leaking fuel can be suppressed through the use of adjacent control rods.

1. The 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 the only accident analysis identified in the FSAR that directly involves control rods at greater than 30 percent power is "Continuous Control Rod Withdrawal During Power Range Operation." The initiating cause of this event is a procedural violation whereby the operator continuously withdraws the highest worth control rod until further withdrawal is inhibited by the RBM. The procedure governing this activity provides specific directions for which control rods are to be inserted and withdrawn. Deviations from that sequence are not permitted, and control rods are not to be withdrawn beyond their pretest position.

   The consequences of an RWE were analyzed by GE as part of the ARTS Program to determine the appropriate RBM settings. The RBM is a plant system designed to prevent rod withdrawals at high powers which could result in failure of the fuel cladding. Thus, it mitigates the consequences of an RWE at core thermal power greater than 30 percent. Both channels of the RBM will be operable during the flux tilt test; therefore, the radiological consequences on an RWE will be no worse than those analyzed for the ARTS Program and referenced in the FSAR. The safety limit MCPR will remain unchanged and the steady state Operating Limit MCPR will be at least 0.05 greater than assumed in the ARTS analysis.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since fuel cladding failures are not explicitly described in the FSAR as a malfunction of equipment important to safety; however, the FSAR does describe plant systems designed for the sole purpose of detecting and mitigating the consequences of fuel failure during an operating cycle. Flux tilting testing involves control rod movement, which is similar to rod movement for sequence exchanges, and the monitoring of offgas activity. Additional deterioration of a failed fuel rod resulting from this activity will be small compared to other normal operational events, since the power changes associated with flux tilt testing will be smaller and less sudden.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since fuel assemblies near the control rods that are inserted and withdrawn will undergo a mild xenon transient. A 3D simulator code, which can model this transient, will be used to analyze the expected sequence and duration of rod moves to ensure compliance with thermal limits throughout this activity. Systems which control, monitor, or minimize the release of radioactive effluents to unrestricted areas will remain operable as required by the Technical Specifications.

<u>92-005</u> Rev 0 Determine the optimum liquid level for the feedwater heaters by adjusting the internal liquid level so as to maximize feedwater heating with minimum usage of extraction steam.

1. The 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 the feedwater heaters have two means of internal level control, a normal (low) level controller and a high level controller. Qualified site technicians will make the level adjustments using the low level controller which provides the standard means of heater level control. Level adjustments will be made in small increments with a stabilization period between each adjustment. Should the low level control valve fail closed or the upper operating limit of the low level controller be exceeded by an adjustment, the high level control valve will open to maintain liquid level. Should the high level control valve fail to open, the heater will isolate on high level via turbine water induction logic and procedures governing the loss of a feedwater heater and/or feedwater heating entered as applicable. Loss of feedwater heating is a DBA and has been fully 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, since the low and high level controllers are located in close proximity to each other so the operation of both controllers can be monitored simultaneously as level adjustments are made by qualified site technicians. Should level fluctuations occur within the heater, the technician can take manual control of level through the appropriate annunciator response procedures and minimize the perturbation.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not address the control or maintenance of the internal liquid level of the feedwater heaters.

92-009 Rev 0

Evaluate the need for modification to the ventilation system temperature control logic at the intake structure by measuring the time required for the structure's internal ambient temperature to reach 130°F when running 6 PSW pumps and 2 RHRSW pumps with the ventilation fans not operating and the intake and exhaust louvers blocked 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, because the PSW systems will not be available to perform as designed during and following this activity. The only event to which performance of this activity could contribute is the loss of PSW and RHRSW. This activity will shutdown the ventilation system and be terminated and all systems returned to normal when (if any) measured temperature reaches 130°F. The safety-related equipment at the intake structure has been evaluated for operation at an ambient temperature of 135°F for 31 days, with no impact on normal system operation following restoration of normal temperatures. The required equipment can operate up to and at 176°F for the short term. The allowed duration of operation at this temperature has not been specifically evaluated; however, based on previous analysis of similar equipment, it is expected that the required equipment can still operate for 31 days without impacting operability during that time.

2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the required equipment will be operated within design parameters using existing control methods (switches). The procedural limit of 130°F ensures the operating characteristics of required equipment are not degraded.

3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the equipment within the intake structure will continue to be operated, maintained, and surveilled as required by the Technical Specifications.

OCCUPATIONAL PERSONNEL
RADIATION EXPOSURE

OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 1992

This section has been complied to satisfy the requirement of E. I. Hatch Nuclear Plant Units 1 and 2 Technical Specifications section 6.9.1.5 and to 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 Regulatory Guide 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 circumstance 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, 1992 through December 31, 1992. All monitored personnel were included in summary as provided under 10CFR20.407(a)(2). Individual exposures as indicated by self-reading pocket ion chambers were recorded daily with use of an ALARA computer system. The exposures were tabulated and printed in hard copy on a weekly basis and when required, along with the difference between these readings and the most restrictive exposure limits. 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 on his/her daily activities. There are six job categories of this nature and they are identified in the following table. Running totals of doses acquired in each of these categories were maintained for each person in his/her dosimetry file. Each dosimeter reading, in addition to being retained for exposure records, is added for individual exposure records, and is added 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 as 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 Regulatory Guide 1.16. Each personnel dosimetry disc file contains the required personnel category information. 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 of temporary inaccessibility suffered by the files. Hard-copy records printed by the ALARA computer were also maintained.

OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 1992

Through use of the ALARA computer system, dosimetry information has been complied, retained, and tabulated in such a manner as to satisfy the pertinent Federal regulations and plant Technical Specifications. The system has been organized to provide this information in the format specified by these requirements and the suggestions of the Regulatory Guides.

SUMMARY OF PERSONNEL MONITORING ENDING DECEMBER 30, 1992

GEORGIA POWER COMPANY - NUCLEAR GENERATION
PLANT E. I. HATCH
P. O. BOX 439
BAXLEY, GEORGIA 31513

DPR-57
NPF-5

Estimated whole body exposure range (rems)	Number of Individuals in each range
No measurable exposure	1166
Measurable exposure less than 0.1	602
0.1 to 0.25	283
0.25 to 0.5	296
0.5 to 0.75	207
0.75 to 1.0	117
1.0 to 2.0	108
2.0 to 3.0	1
3.0 to 4.0	1
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 personnel monitored 2781

This report is submitted in accordance with paragraph (a)(2) of 10CFR20.407

GEORGIA POWER COMPANY - NUCLEAR GENERATION
PLANT E. I. HATCH
P. O. BOX 439
BAXLEY, GEORGIA 31513

LICENSE: DPR-57
LICENSE: NPF-5

REGULATORY GUIDE 1.16 INFORMATION
END OF YEAR REPORT 1992

WORK & JOB FUNCTION	# PERSONNEL (>100 mrem) STA	UTILITY	CONTRCT	TOTAL MAN-REM STA	UTILITY	CONTRCT
Reactor Operations & Surveillance						
Maintenance & Construction	67	2	44	33.613	.680	17.801
Operations	45	1	1	25.890	.185	.230
Health Physics & Lab	43	1	21	17.372	.206	8.145
Supervisory & Office Staff	17	0	3	6.379	.089	1.763
Engineering Staff	15	0	3	4.905	.150	1.648
Routine Plant Maintenance						
Maintenance & Construction	105	3	119	40.590	.946	44.943
Operations	34	1	1	16.077	.929	.216
Health Physics & Lab	23	2	22	12.777	.348	10.762
Supervisory & Office Staff	9	0	4	2.823	.048	1.638
Engineering Staff	5	1	9	2.287	.455	4.185
Inservice Inspection						
Maintenance & Construction	8	0	98	4.661	.026	36.845
Operations	2	0	1	.584	0.000	.216
Health Physics & Lab	4	1	6	1.584	.339	1.811
Supervisory & Office Staff	2	0	2	.388	.002	.511
Engineering Staff	4	0	12	1.239	.055	4.381
Special Plant Maintenance						
Maintenance & Construction	99	2	187	41.304	.463	86.654
Operations	6	0	1	2.183	0.000	.216
Health Physics & Lab	23	2	12	11.328	.442	6.300
Supervisory & Office Staff	8	0	3	3.081	.002	1.246
Engineering Staff	4	0	5	1.281	.178	2.276
Waste Processing						
Maintenance & Construction	13	0	46	6.003	.026	15.460
Operations	3	0	1	.789	0.000	.216
Health Physics & Lab	6	0	7	2.235	0.000	2.249
Supervisory & Office Staff	3	0	1	.643	.002	.686
Engineering Staff	0	0	2	.050	.005	.618
Refueling						
Maintenance & Construction	13	0	102	4.312	.026	37.558
Operations	9	0	1	3.292	0.000	.216
Health Physics & Lab	2	0	10	.990	0.000	3.056
Supervisory & Office Staff	3	0	0	1.175	.002	.224
Engineering Staff	0	0	7	.141	.028	2.060
Totals						
Maintenance & Construction	305	7	596	130.483	2.167	239.262
Operations	99	2	6	48.815	1.114	1.308
Health Physics & Lab	101	6	78	46.287	1.336	32.324
Supervisory & Office Staff	42	0	13	14.488	.145	6.068
Engineering Staff	28	1	38	9.903	.871	15.167
Grand Totals	575	16	731	249.976	5.633	294.129

Total MREM 549.738

REACTOR COOLANT CHEMISTRY

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 Technical Specifications, 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 lower limit of detection of the counting system.

Unit 1
1992
SJAE Isotopics
uCi/SEC

DATE 1992	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	≤ 6
Jan. 27	2436	3.35E0	4.84E1	1.22E3	8.27E0	8.05E1	3.20E1	1.39E3
Feb. 24	2436	4.70E0	4.76E1	1.14E3	9.59E0	7.60E1	3.21E1	1.31E3
Mar. 23	2436	4.71E0	4.26E1	1.12E3	7.92E0	7.76E1	3.00E1	1.28E3
Apr. 27	2436	6.99E0	3.67E1	9.64E2	7.72E0	7.00E1	2.19E1	1.11E3
May 18	2436	1.88E0	3.40E1	8.04E2	6.79E0	5.56E1	2.09E1	9.23E2
Jun. 22	2436	2.21E0	3.93E1	1.02E3	8.02E0	6.82E1	2.68E1	5.18E3
Jul. 27	2436	1.87E0	4.79E1	8.79E2	7.70E0	5.57E1	2.66E1	1.02E3
Aug. 31	2420	1.29E0	3.33E1	9.55E2	6.67E0	6.65E1	2.62E1	1.09E3
Sept.28	2434	1.30E0	2.15E1	6.10E2	4.88E0	3.11E1	1.50E1	6.84E2
Oct. 26	2436	1.47E0	2.42E1	5.85E2	5.53E0	3.77E1	1.89E1	6.73E2
Nov. 30	2436	1.52E0	2.28E1	5.29E2	3.63E0	3.66E1	1.48E1	6.08E2
Dec. 31	2436	1.71E0	2.47E1	5.69E2	3.96E0	3.70E1	1.48E1	6.52E2

REACTOR CHEMISTRY

IODINES uCi/ml

DATE 1992	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan. 27	2436	4.07E-6	2.80E-4	9.09E-5	1.27E-3	2.63E-4	8.22E-5
Feb. 24	2436	2.24E-5	6.16E-4	2.08E-4	2.70E-3	5.72E-4	1.94E-4
Mar. 23	2436	9.84E-6	4.50E-4	1.61E-4	1.84E-3	4.41E-4	1.38E-4
Apr. 27	2436	1.41E-5	6.55E-4	2.63E-4	2.58E-3	6.84E-4	2.10E-4
May 18	2436	0.00E0	6.15E-4	1.80E-4	2.60E-3	4.89E-4	1.56E-4
Jun. 22	2436	1.62E-5	6.18E-4	2.17E-4	2.04E-3	6.07E-4	1.83E-4
Jul. 27	2436	1.82E-5	5.18E-4	2.29E-4	1.72E-3	6.20E-4	1.80E-4
Aug. 31	2420	1.87E-5	4.60E-4	3.22E-4	2.51E-3	8.43E-4	2.35E-4
Sept.28	2434	8.09E-6	4.73E-4	1.71E-4	2.13E-3	5.05E-4	1.50E-4
Oct. 26	2436	1.12E-5	2.02E-4	1.60E-4	6.63E-4	3.10E-4	9.87E-5
Nov. 30	2436	4.89E-5	2.62E-3	8.31E-4	9.74E-3	2.30E-3	7.25E-4
Dec. 31	2436	1.04E-5	4.73E-4	1.64E-4	1.62E-3	4.65E-4	1.38E-4

Unit 2
1992
SJAE Isotopics
uCi/SEC

DATE 1992	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	ξ 6
Jan. 21	2432	2.50E2	8.61E2	5.98E3	1.87E2	8.36E2	6.54E2	8.77E3
Feb. 21	2425	4.06E2	1.44E3	8.35E3	2.68E2	1.19E3	8.02E2	1.24E4
Mar. 20	2436	9.14E1	5.81E2	7.40E3	1.14E2	6.92E2	4.01E2	9.28E3
Apr. 21	2436	1.45E2	1.13E3	1.83E4	2.21E2	1.58E3	7.87E2	2.22E4
May 22	2436	8.67E1	7.67E2	1.42E4	1.49E2	1.12E3	5.91E2	1.69E4
Jun. 23	2436	6.67E1	7.31E2	1.49E4	1.49E2	1.11E3	5.49E2	1.75E4
Jul. 21	2373	7.37E1	8.80E2	1.88E4	1.80E2	1.34E3	6.74E2	2.20E4
Aug. 25	1823	9.90E1	1.18E3	2.46E4	2.31E2	1.78E3	8.43E2	2.87E4
Sept.15	1654	2.50E2	1.10E3	2.04E4	2.30E2	1.41E3	6.42E2	2.41E4
Oct.	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Nov.	0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
Dec. 22	2436	4.83E1	4.48E2	1.16E4	1.06E2	8.23E2	3.22E2	1.34E4

REACTOR CHEMISTRY

		IODINES uCi/ml					
DATE 1992	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan. 21	2432	3.67E-5	3.91E-4	1.66E-4	1.73E-3	4.55E-4	1.63E-4
Feb. 21	2425	9.25E-4	1.21E-2	3.58E-3	1.33E-2	5.66E-3	3.03E-3
Mar. 20	2436	6.48E-5	2.10E-3	7.49E-4	9.68E-3	2.00E-3	6.74E-4
Apr. 21	2436	1.85E-4	4.33E-3	1.56E-3	2.20E-2	4.46E-3	1.51E-3
May 22	2436	2.13E-4	6.99E-3	2.75E-3	3.67E-2	7.52E-3	2.46E-3
Jun. 23	2436	2.58E-4	7.73E-3	3.39E-3	4.01E-2	9.29E-3	2.91E-3
Jul. 21	2373	4.50E-4	1.36E-2	6.37E-3	5.91E-2	1.62E-2	5.02E-3
Aug. 25	1823	5.51E-4	1.18E-2	6.70E-3	3.55E-2	1.67E-2	4.78E-3
Sept.15	1654	1.78E-3	2.36E-2	1.15E-2	7.85E-2	2.57E-2	9.23E-3
Oct.	0	0.00E-0	0.00E-0	0.00E-0	0.00E-0	0.00E-0	0.00E-0
Nov.	0	0.00E-0	0.00E-0	0.00E-0	0.00E-0	0.00E-0	0.00E-0
Dec. 22	2436	2.05E-4	9.27E-3	4.08E-3	5.87E-2	1.15E-2	3.60E-3