

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



February 22, 1994

Docket Nos. 50-321  
50-366

HL-4513

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

Edwin I. Hatch Nuclear Plant  
Annual Operating Report for 1993

Gentlemen:

Enclosed is the 1993 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.

JKB/cr

Enclosure: 1993 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, Washington, D.C.  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. L. D. Wert, Senior Resident Inspector - Hatch

9403070379 931231  
PDR ADDCK 05000321  
R PDR

ENCLOSURE

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

ANNUAL OPERATING REPORT  
1993

## TABLE OF CONTENTS

	<u>Page</u>
Glossary	ii
Introduction	1
Safety Relief Valve Challenges for 1993	2
Design Changes and Tests or Experiments	3
Unit 1/Common Design Changes (Safety Related)	4
Unit 2 Design Changes (Safety Related)	79
Unit 1/Common Design Changes (Nonsafety Related) Resulting in FSAR/FHA Updates in 1993	101
Unit 2 Design Changes (Nonsafety Related) Resulting in FSAR/FHA Updates in 1993	104
Unit 1/Common As-Built Notices Resulting in FSAR/FHA Updates in 1993	106
Unit 2 As-Built Notices Resulting in FSAR/FHA Updates in 1993	107
Unit 1/Common 10 CFR 50.59 Safety Evaluations Written as a Result of Activities (LARs, Procedures, etc.) Affecting FSAR/FHA in 1993	113
Unit 2 10 CFR 50.59 Safety Evaluations Written as a Result of Activities (LARs, Procedures, etc.) Affecting FSAR/FHA in 1993	146
Unit 1 Test or Experiment Requests	179
Unit 2 Test or Experiment Requests	182
Data Tabulations and Unique Reporting Requirements	
Occupational Personnel Radiation Exposure for 1993	186
Reactor Coolant Chemistry	188
Summary of Personnel Monitoring Ending December 31, 1993	191
Regulatory Guide 1.16 Information End of Year Report - 1993	192

## 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
ANSI	American National Standards Institute
AOV	air-operated valve
APRM	average power range monitor
ARTS	APRM Rod Block Technical Specifications
ASCO	Automatic Switch Company
ASME	American Society of Mechanical Engineers
ATTS	analog transmitter trip system
ATWS	anticipated transient without scram
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
CT	current transformer
DBA	design basis accident
DBE	design basis earthquake
DAAS	data acquisition and analysis system
DC	direct current
DCR	design change request
dP	differential pressure
ECCS	emergency core cooling system
ECP	electrochemical potential
EHC	electrohydraulic control
EQ	environmental qualification
FHA	fire hazards analysis
FPC	fuel pool cooling and cleanup
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	instrumentation 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
MSIV	main steam isolation valve
MSL	main steam line
MSR	moisture separator reheater
NFPA	National Fire Protection Association
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	pipng 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
RPIS	rod position indicating system
RPS	reactor protection system
RPV	reactor pressure vessel
RRS	reactor recirculation system
RTD	resistance temperature detectors
RWCU	reactor water cleanup
RWCS	reactor water cleanup system
RWE	rod withdrawal error
RWM	rod worth minimizer
SAT	station auxiliary transformer
SBGT	standby gas treatment
SBLC	standby liquid control
SDV	scram discharge volume
SFP	spent fuel pool
SFPCCS	spent fuel pool cooling and cleanup system
SJAE	steam jet air ejector
SLCS	standby liquid control system
SNC	Southern Nuclear Operating Company
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 1993 were 737 net MWe for Unit 1 and 757 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:

	<u>Unit 1</u>	<u>Unit 2</u>
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 1993

Unit 1

No SRV challenges occurred this year.

Unit 2

No SRV challenges occurred this year.



DESIGN CHANGES AND TESTS OR EXPERIMENTS

SAFETY EVALUATIONS FOR ALL SAFETY-RELATED DESIGN CHANGES,  
NONSAFETY-RELATED DESIGN CHANGES, AS-BUILT NOTICES, AND  
OTHER ACTIVITIES RESULTING IN FSAR/FHA UPDATES IN 1993

Pursuant to 10 CFR 50.59, the following is a brief description and summary of the safety evaluation for each change made to safety-related systems and components, and each test or experiment performed during 1993. 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)

82-173 - Rev. 0

Provide the RHR system logic with time delay relays to maintain their catalog specified accuracy.

1. The 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 working logic of the system important to safety has not been changed due to 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 replacement relays are functionally identical to the existing relays.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the replacement relays are more reliable than the existing relays.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

83-229 - Rev. 0

Remove the air operator from LPCI valves 1E11-F050 A&B and delete the testable feature and valve position indications associated with the valves. Revise Unit 1 FSAR paragraphs 4.8.5.3, 6.5.2.5, 7.4.3.5.1, and table 7.3-1 per the modification.

1. The 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 operation of the valves and the plant response to evaluated accidents are not affected by this change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the function, reliability, and operation of the LPCI check valves remain unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the function and operation of the subject valves are unchanged. No acceptance limits or failure points are affected by this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

87-149 - Rev. 0

Add interposing auxiliary relays to the RHR MCC/local starter control circuits to reduce voltage drop in the circuits.

1. The 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 ensures safe operation of the starters under worst voltage conditions. The relays are seismically and environmentally qualified. System operation and original design intent remain 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 failure modes are introduced by this modification. All system operations are unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect any system logic, setpoint, or response time.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

88-251 - Rev. 1

Replace various safety-related Velan valves with equivalent safety-related Vogt valves in the RWCU, radwaste, and PSW systems. Revise applicable FSAR figures per the modification.

1. The 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 valves comply with original design specifications. Consequences of an accident remain the same as previously evaluated.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification has no impact on the design or operation of affected systems or valves.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification meets original design and specification requirements.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

88-283 - Rev. 0

Install isolation valves in the air start system tubing of the Unit 1 diesel generators to facilitate post operational barring over of the diesel engines. Revise Unit 1 FSAR figure 8.4-3 (sheets 2 and 4 of 4) per the modification.

1. The 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 all original system design requirements. Overall system performance is not affected in a manner that could increase the probability of accidents. Failure of the isolation valve would result in the same effects as failure of any other valve or pressure retaining component in the diesel air start system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification does not affect the operation of the diesel generator system. No new modes of failure are created. No equipment important to safety is affected by this design change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not reduce the reliability of the diesel generators. No acceptance limits are increased, and no failure points are decreased by this change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

88-354 - Rev. 0

Eliminate the duplication of cable numbers, correct documentation (single line, elementary, wiring diagrams, circuit schedule), and retag the cables for RHR heat exchanger outlet and containment spray inboard motor-operated 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 is a documentation change only and involves no physical change to plant equipment. Retagging cables will not affect accident probabilities or consequences. The drawing changes and retagging of cables will not degrade any 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 physical modifications are involved and no new failure mechanisms are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the affected cables are not described in the Technical Specifications. This documentation change will not affect any Technical Specifications limits or bases.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

89-138 - Rev. 0

Install a lead shielding wall around CRD level switches 1C11-N013E and -N013F to reduce radiation dose in the affected area.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because no safety-related systems are affected by this change. No system's response to an accident is affected. All additions are seismically analyzed for a II/I condition.
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 or failure mechanisms are created by this change. This modification ensures no safety systems, structures, or components are degraded and no safety margins are reduced.
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. No acceptance limits are increased, and no failure points are decreased for any safety-related equipment.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

89-278 - Rev. 0

Install an improved hardened wetwell vent/torus hardened vent as part of the Mark I Containment Performance Improvement Program. Revise applicable FSAR sections per the modification.

1. The 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 modification mitigates the effects of a severe accident. The availability and capability of the modified systems are not compromised, since the modification meets all design, material, and construction standards of the affected systems. No modifications to the containment isolation logic are required as a result of this change. This modification meets the Seismic Category I requirements for the existing systems and the new structures, piping, conduits, and associated supports. Sizing calculations ensure that cables are adequately sized to supply the required loads necessary for the modification. Routing of cables and raceways ensures compliance with separation 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 torus hardened vent mitigates the loss of a long-term decay heat removal sequence, and is available for a station blackout. This change ensures that original design bases are not invalidated. All new structures, piping, conduit, and associated supports are designed seismically to ensure that no new hazards are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since applicable LCOs have been met. This modification complies with Technical Specifications requirements for the operability of the SGTS and the containment purge and inerting system.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-052 - Rev. 0

Remove the drywell pneumatic compressor vacuum cutout annunciator. Revise Unit 1 FSAR figure 10.19-1 (sheet 1 of 2).

1. The 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 new failure modes are introduced by this change. No system response assumed in any accident analysis are impacted. The operation and reliability of equipment important to safety 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 failure modes are introduced by the modification. The nonsafety-related annunciator has no effect on any equipment important to safety.
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 by removal of the annunciator.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-065 - Rev. 0

Replace existing MSR drain system check valves 1N22-F042 A&B, -F044 A&B, -F052 A&B, and -F053 A&B with new valves that facilitate maintenance. Revise FSAR figure 11.1-3, sheets 2, 3, and 5.

1. The 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 and function of the MSR drain system are not affected by this design change. No previously evaluated accident analysis is affected. The modification does not delete or modify protection features, downgrade any system's performance, reduce redundancy or independence of any system or component, or impose more severe testing 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 operation of the MSR drain system is not affected. No new failure modes that can affect equipment important to safety are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this design change does not modify or affect any previous analysis or Technical Specifications basis.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-072 - Rev. 0

Modify the RCIC system by installing a bypass line and valve around the steam supply valve to the RCIC turbine and modify system logic accordingly. Revise Unit 1 FSAR section 4.7 per the modification.

1. The 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 modification improves the system startup transient, thereby enhancing RCIC system reliability. A failure of the bypass will not prevent RCIC from operating.
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 RCIC system remains unchanged. No new failure modes of equipment important to safety are introduced by this modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification decreases the startup transient per CE's test report, thereby, effectively eliminating transient challenges to the system trip functions.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-117 - Rev. 1

Remove thermocouple 1G31-N006 and associated cables from the RWCU system. Revise Unit 1 FSAR figures 4.9-1, sheet 1 of 2, and A.2-6, sheet 1 of 2.

1. The 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 neither the thermocouple nor its information is needed or required to be used by any safety-related component or system. No new failure modes are introduced. This change does not compromise any safety barrier or safety system. Neither the reliability nor the operation 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 the modification does not degrade or reduce the safety margins for any of the systems.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not affect any systems referenced in the Technical Specifications. No acceptance limits are increased, and no failure points are decreased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-129 - Rev. 0

Install resistors and LED indicator lights to monitor the status of the solenoid valves associated with the MSIVs. This modification should minimize testing an MSIV with a failed solenoid.

1. The 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 modification will enable the MCR operators to know the status of the solenoid valves prior to testing an MSIV. The failure of one or more of the installed components does not adversely impact the response capabilities of the MSIVs. The function, response, and integrity of equipment important to safety are not affected by this modification.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new failure modes to equipment important to safety are introduced. No equipment important to safety is altered in function, integrity, or operation by this modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification enhances the operator's interface and response capabilities. No acceptance limits or failure points are affected by this change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-159 - Rev. 0

Add control switches to main control room panel 1H11-P650 to separate the controls for the suction and minimum-flow valves for each of the reactor feed pumps.

1. The 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 modification provides separate controls for the RFP valves and does not alter the function of the valves or the condensate and feedwater systems. The new switches perform no safety-related function and are isolated from 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, since the overall function of the condensate and feedwater systems is unchanged, and no new accident scenarios are introduced. Because of the isolation of the switches from any safety-related components or functions, the possibility of a malfunction of equipment important to safety is not created by this design change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no Technical Specifications parameters are affected by this modification. No acceptance limits are increased, and no failure points are decreased.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-162 - 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 manufacturer. The new controllers utilize modern digital electronic technology, but provide analog outputs to control the systems in the same manner as the original controllers. Revise applicable sections of the FSAR per the modifications.

1. The 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 modification provides more reliable controllers. The affected control systems are not required to mitigate the consequences of any accident evaluated in the FSAR. The seismic integrity of the MCR panels is not affected by this design change. The 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 while providing for increased reliability of operation as a result of the modification. The failure of the new controllers is bounded by existing analyses.
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 acceptance limits are increased, and no failure points are decreased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-184 - Rev. 0

Provide additional isolation valves in the RBCCW supply and return lines to the fuel pool cooling heat exchangers. Revise Unit 1 FSAR figure 10.5-1 to reflect the design change.

1. The 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 modification does not change the operation and function of the RBCCW system. No accidents listed in FSAR chapter 14 are affected by this design change. The design and installation of the additional valves meet or exceed the design requirements of the system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since system function and operation are unaffected. Piping changes are designed to meet the code requirements of the original piping. The RBCCW system is not safety-related; the system will continue to operate as originally designed.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no parameters discussed in the Technical Specifications are affected. No failure points are decreased, and no acceptance limits are increased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-201 - Rev. 0

Modify tap settings, replace overcurrent relays, and incorporate necessary relay setting changes to improve the performance of the CTs.

1. The 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 reduce the effects of the possible CT saturation and do not alter the function of SAT or the design of the safety-related systems. The affected equipment does not perform a safety-related function, and the safety and accident analysis in FSAR chapter 14 does not address the CT operation. The replacement relays are analyzed for seismic considerations.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since operational reliability and function are maintained without adversely impacting the existing safety equipment. No new safety interfaces are established by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since specific relay settings are not discussed in the Technical Specifications. No new safety parameters are created. No failure points are decreased, and no acceptance limits are increased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-225 - Rev. 0

Provide a permanent airlock within the railroad airlock at the Unit 1 reactor building to allow personnel entry when railroad airlock door R23A/B is 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 new structure is designed per Seismic I criteria. No response to any evaluated accident is impaired. The radiological consequences of safety-related equipment failures are not increased or affected, since secondary containment will be maintained. The electric interlock logic for doors of the hot machine shop, railroad airlock, and new personnel airlock is not changed from that previously implemented.
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 structure and its operation meet existing design criteria. This design change does not add any different equipment important to safety than previously evaluated in the FSAR; 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 the secondary containment will be maintained as presently required by the Technical Specifications. No acceptance limits are increased, and no failure points are decreased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-232 - Rev. 0

Replace the operator, stem, and yoke assembly of HPCI inboard isolation valve 1E41-F002 to comply with the guidelines of Generic Letter 89-10, Supplement 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 modification ensures that the valve will operate according to the design requirements. The system response is not affected, and reliability of the valve is improved. Performance of the piping and any equipment important to safety are not affected by this change. Any contribution to the consequences of failure of safety-related equipment due to the malfunction of the subject valve is the same as before the valve upgrade.
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 or accident mechanisms are introduced by this design change. The modification improves the safety factor of the valve without adversely impacting the existing safety equipment. 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 the design of the replacement valve is more conservative, with respect to valve closure, than the existing valve. No failure points are decreased, and no acceptance limits are increased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-233 - Rev. 0

Replace the operator, stem, and yoke assembly of HPCI inboard isolation valve 1G31-F001 to comply with the guidelines of Generic Letter 89-10, Supplement 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 modification ensures that the valve will operate according to the design requirements. The system response is not affected, and reliability of the valve is improved. Performance of the piping and any equipment important to safety are not affected by this change. Any contribution to the consequences of failure of safety-related equipment due to the malfunction of the subject valve is same as before the valve upgrade.
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 or accident mechanisms are introduced by this design change. The modification improves the safety factor of the valve without adversely impacting the existing safety equipment. 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 the design of the replacement valve is more conservative, with respect to valve closure, than the existing valve. No failure points are decreased, and no acceptance limits are increased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-234 - Rev. 0

Replace the operator, stem, and yoke assembly of HPCI inboard isolation valve 1E41-F003 to comply with the guidelines of Generic Letter 89-10, Supplement 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 modification ensures that the valve will operate according to the design requirements. The system response is not affected, and reliability of the valve is improved. Performance of the piping and any equipment important to safety are not affected by this change. Any contribution to the consequences of failure of safety-related equipment due to the malfunction of the subject valve is the same as before the valve upgrade.
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 or accident mechanisms are introduced by this design change. The modification improves the safety factor of the valve without adversely impacting the existing safety equipment. 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 the design of the replacement valve is more conservative, with respect to valve closure, than the existing valve. No failure points are decreased, and no acceptance limits are increased by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-235 - Rev. 0

Replace the operator, stem, and yoke assembly of HPCI inboard isolation valve 1G31-F004 to comply with the guidelines of Generic Letter 89-10, Supplement 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 modification ensures that the valve will operate according to the design requirements. The system response is not affected, and reliability of the valve is improved. Performance of the piping and any equipment important to safety are not affected by this change. Any contribution to the consequences of failure of safety-related equipment due to the malfunction of the subject valve is the same as before the valve upgrade.
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 or accident mechanisms are introduced by this design change. The modification improves the safety factor of the valve without adversely impacting the existing safety equipment. 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 the design of the replacement valve is more conservative, with respect to valve closure, than the existing valve. No failure points are decreased, and no acceptance limits are increased by the modification.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-247 - Rev. 0

Remove the RSCS monitoring and blocking functions for control rod selection, withdrawal and insertion. Revise applicable sections of the FSAR to reflect the modification.

1. The 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 removal of the RSCS does not cause or increase the probability of any accident previously evaluated. The rod drop accident is considered in the design of the RWM. No new modes of failure are introduced. No equipment related to safety is adversely modified or impacted by this change. The RWM system contains self-testing and diagnostic features and, therefore, it is more reliable in performing the sequence enforcement.
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 could create or prevent the possibility of an accident. No safety related equipment is modified or affected by this design change. The RWM is designed to minimize both susceptibility to, and generation of, electromagnetic interface.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the RWM is a more reliable and dependable rod sequence enforcement device. The peak fuel enthalpy is restricted by the rod pattern controls imposed by the RWM.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

90-251 - Rev. 0

Remove a specific orifice and reducing couplings in the minimum flow recirculation piping for condensate transfer pumps, and replace them with piping. Revise FSAR figure 11.1-2 to reflect deletion of the orifices.

1. The 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 meets or exceeds all code and design requirements of the original design. The function and operation of the system and nuclear plant safety are not adversely affected by this modification.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification meets or exceeds all code and design requirements of the original design. There are no credible methods by which the change could affect nuclear plant safety.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect any parameters discussed in the Technical Specifications or add any that should be included. No failure points or acceptance limits are impacted by this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-001 - Rev. 0

Replace the turbine control valve/turbine stop valve scram bypass differential pressure switches with a similar model having a narrower deadband on reset.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the design characteristics of the replacement switches meet or exceed the design requirements of the existing switches.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the design, operation, installation, and configuration of the replacement switches are similar to the existing switches. Thus, no new or different failure modes are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the setpoint, accuracy, and response time of the replacement switches meets or exceeds those of the existing switches. The narrower deadband results in a reset value closer to the nominal value.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-010 - Rev. 0

Change the transformer dielectric fluid from TF-1/TF-X to silicone for nonsafety-related switchgear as part of the PCB removal program. This switchgear has potential safety-related impact because loss of power to these switchgear, or transients, could cause loss of turbine components or turbine, that could challenge certain safety systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The properties of the retrofill fluids were reviewed and appropriate derating analyses performed to ensure the modified auxiliary supplies will provide adequate, reliable power and handle the current loads such that no system or equipment operation, response, or reliability will be affected. This modification will only be made with a suitable alternate power source supplying affected loads.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since these modified and derated transformers will still handle their current loads and no system operation, response or reliability is affected. Therefore, 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 transformers involved in this change are nonsafety related and no system operation or response is affected. No allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-011 - Rev. 0

Change dielectric fluid for the switchgear transformers from TF-1/TF-X to silicone. Revise FHA section 3.5.1, Appendix K, and table 3-1 to show the combustible characteristics of silicone.

1. The 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 involved in any of the FSAR accident/equipment malfunction scenarios is adversely affected. A review of the properties of silicone and a derating analysis ensure that the affected equipment will adequately handle current loads.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the affected equipment is capable of handling current loads. No system operation, response, or reliability is affected by this change. 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 no allowable limit or failure point of any safety-related system/equipment is altered by this design change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-050 - Rev. 0

Install prefilters in the return air paths of the control room air-conditioning system to protect the cooling coils from dust buildup.

1. The 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 will not affect the function and operation of the MCRECS, as verified by a simulated test of the system with temporarily installed prefilters. Plant maintenance procedures will be performed on a routine basis to ensure filters are checked and changed out as needed.
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 the prefilters will not adversely affect the operation and functional requirements of the safety-related MCRECS, as indicated in the simulated test. The prefilters will be seismically mounted and secured with wire mesh screens to prevent the prefilters from being pulled onto the cooling coils.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new prefilters will protect the cooling coils from dust and dirt buildup, decrease the frequency of cooling coil cleaning and help maintain system performance. The margin of safety as defined in the bases of the Units 1 and 2 Technical Specifications are not affected by the addition of the prefilters.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-075 - Rev. 0

Install a new circuit/breaker to accommodate the redistribution of loads in circuit R25-S065-ES8-M15 because the load current for the circuit exceeded the allowable derated ampacity.

1. The 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 change reduces the probability of cable failure and its affect on any accident evaluated in the FSAR. The modification meets all design requirements, including separation, ampacity derating, and breaker coordination. No parameters which affect the radiological doses to the public are affected by the change. The design and performance of the R25 system is upgraded per 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 design change meets all design requirements and upgrades the performance of the R25 system. No new types of malfunctions are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification increases the cable derated ampacity above the acceptable value.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-076 - Rev. 0

Replace existing fire doors between the control building and east cableway, and in the east cableway between the Units 1 and 2 turbine building. Modify the new doors with electromagnetic hold-open devices which will allow the doors to remain normally open, reducing their use and required maintenance. Interface the hold-open devices with new smoke detectors, allowing the doors to remain open until released automatically by the smoke detectors or power failure. Due to the location of the doors, safety-related equipment in this area could be affected in a seismic event.

1. The 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 fire doors are not a precursor to any accident evaluated in the FSAR. The smoke detectors, hold-open devices, and relay panel will be secured to preclude failure during a seismic event. The structural integrity of the control building and the response of any system assumed to operate in an accident 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 seismic requirements are satisfied and no safety-related equipment is impacted.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the smoke detectors, hold-open devices, and relay panel will be seismically supported and will not affect any equipment defined in the Technical Specifications.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-078 - Rev. 0

Modify, replace, and add access doors for high radiation areas. Revise the FHA per the modifications.

1. The 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 applicable seismic and high energy line break situations. The controlled access barriers do not perform a safety-related function.
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 meets all design requirements. No new modes of failure or equipment malfunction possibilities are introduced. System function and operation are unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits and no failure points are altered by implementing this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-093 - Rev. 0

Replace stop check valves 1C11-F014 A&B, located in the CRD pump discharge piping, with check valves in series with globe valves. Revise FSAR figure 3.4-9, sheet 2 of 2, per the modification.

1. The 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 improves the reliability of the throttling and isolation process of the CRD pumps. The response of the system or any equipment important to safety is not affected by the design change. Any consequences of a failure of safety-related equipment due to malfunction of the CRD pumps or the valves are the same as before the valve replacement.
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 design and construction requirements for the system. No new modes of failure or accident mechanisms are created by the design change. The replacement improves system reliability; therefore, no new equipment malfunction possibilities are introduced.
3. The margin of safety as defined in the oases of the Technical Specifications is not reduced, since the reliability and ability of the system are not adversely affected. No acceptance limits or failure points are affected.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-113 - Rev. 0

Modify the RPIS probe buffer logic to provide a more reliable full-in indication which is used by the refueling interlocks and the operator to confirm that all rods are full-in.

1. The 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 RPIS is not a safety-related system and its production of full-in signals is not considered in the accident evaluations. This change makes operation of the full-in signals more reliable and reduces the probability of malfunction.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since only the RPIS operation is affected. The effects of RPIS failures were evaluated, and results indicated new effects are not caused by this change. Full-in indication occurs under the same rod positions as before the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since full-in indication is still received for the same control rod positions as before the change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-117 - Rev. 0

Relocate the CAV system to minimize personnel man-rem exposure and provide a permanent installation for the system. Revise the FSAR per the modification.

1. The 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 does not affect the seismic analysis and operation of the interfaced systems. No 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 failure modes that can affect any equipment important to safety are introduced. This change meets all applicable design codes and standards to preclude the possibility of affecting any safety-related equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operability of equipment defined in the Technical Specifications is not affected. No acceptance limits are increased, and no failure points are decreased by this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-119 - Rev. 0

Replace the existing process computer system with a new GE-supplied process computer system for both 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 this design change does not impact operation of any plant system or the structural integrity of existing structures. None of the equipment required to mitigate the consequences of an accident is affected by this change. Heat loads are adequate for adding the new process computer equipment. No adverse interaction with the safety-related cables and conduits is caused 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 no new failure modes/equipment malfunction possibilities are created. The system has no safety design basis, does not initiate any accident, and is not required to mitigate any accident.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect any plant system. The seismic integrity of safety-related equipment and structures is not affected by this design change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-121 - Rev. 0

Implement the final phase of the process computer replacement.  
Revise Unit 1 FSAR section 7.14 per the design change.

1. The 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, connected, modified, removed or disconnected by this design change is nonsafety-related. The seismic integrity of existing safety-related equipment is maintained, and no safety-related equipment, cables, conduits, or cable trays are affected by this design change. No original requirements of IEEE 384-1974 are 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 system has no safety design basis.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not adversely affect the seismic integrity of safety-related equipment or structures.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-135 - Rev. 0

Implement a backup mode of operation to assure that SRVs will actuate at or near the appropriate setpoint and within the allowable limits. Install a new sensor initiated logic (one-out-of-two taken twice) which actuates the SRVs at, or slightly above, the respective mechanical setpoint. Revise applicable sections and figures of the Unit 1 FSAR per the modification.

1. The 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 modification does not change the existing functions of the SRVs, ADS, or LLS system. This design change prevents an inadvertent opening of an SRV due to a single failure in the SRV actuation logic. The equipment is procured per Class 1E and design requirements, and installed to ensure proper isolation from safety-related SRV functions.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this design change minimizes the potential for inadvertent SRV actuation in case of a false signal, while providing for increased reliability of operation at the design basis setpoints. Safety grade fuses are used to isolate the SRV back-up electrical activation from the existing safety-related ADS and LLS logic. The electrical actuation of the SRVs is redundant to and independent from the mechanical actuation; therefore, their function is unimpaired.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the function of each affected system remains unaffected. The addition of the actuation logic actually enhances SRV operability and reliability. No acceptance limits are increased, and no failure points decreased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-141 - Rev. 0

Replace Barksdale turbine control valve fast closure pressure switches 1C71-N005 A-D with new qualified Static-O-Ring instruments.

1. The 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 response and operation are not affected by this change. Since the setpoint is the same, and there is no significant change in trip channel response time for the pressure changes. The new pressure switches are qualified to applicable IEEE and seismic requirements. System operation is enhanced since the design change provides ease of maintenance.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since system logic and operation remain unaffected. No new failure modes are introduced by the modification. The function of the replacement switches is identical to that of the existing switches.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no setpoints, safety limits, or safety equipment are affected by the modification. The response time of the replacement switches meets Technical Specifications requirements.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-143 - Rev. 0

Replace the field ground detector relay with a relay which provides output for monitoring leakage current and dual level alarm/trip functions in which the alarm setpoint precedes the trip.

1. The 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 reduces the probability of spurious trips. The relay is not associated with initiation of any other analyzed transients or accidents. The operation of the new relay remains the same except for the alarm setpoint which precedes the trip.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since failure of either relay results in the same plant responses. Thus, no new accident scenarios are created. The replacement relay decreases the risk of spurious ground indication and provides early warning before a turbine trip.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the relay is not addressed in the Technical Specifications and does not affect any Technical Specifications requirements.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-162 - Rev. 0

Replace the HPCI test to CST valve (1E41-F008) with a new DRAG valve designed to resist cavitation. Revise applicable Unit 1 FSAR sections per the modification.

1. The 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 modification does not affect the performance of the HPCI system. No previously evaluated accident scenarios are affected. This design change meets or exceeds existing system design criteria.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this design change complies with applicable codes and standards, thus precluding the possibility of introducing any new accidents. No new failure modes that can affect any equipment important to safety are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since, during normal operation, no acceptance limits are increased, and no failure points are decreased. However, during testing, the HPCI system is declared inoperable.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-169 - Rev. 0

Implement the requirements of the Emergency Response Data System Rule set forth in the Federal Register on September 12, 1991. Revise Unit 1 FSAR section 7.21 per the change.

1. The 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 system is in no way related to or interfaced with any equipment necessary for safe operation or shutdown of the plant. It is an informational device for the NRC to use during emergencies.
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's major function is to provide information on a post-accident basis to offsite users. The system does not interface with any safety-related equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the system is not required for safe operation or safe shutdown of the plant. No acceptance points or failure points are affected by this change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-173 - Rev. 1

Change RHR to RHRSW crosstie line valves 1E11-F074 A&B from reduced port valves to full port valves, and relocate the valves from the bottom of the crosstie lines to the top of the lines to reduce the potential of the valves for being clogged by debris. Also, add manual vent valves to the top of the crosstie lines, and install manual drain valves on the bottom of the lines. Revise Unit 1 FSAR figures 7.4-7, sheets 1 and 2, and A.2-10.

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 modification does not change the operation and function of the RHR and RHRSW systems. No accidents addressed in FSAR Chapter 14 are affected by this change. The modification meets or exceeds the design requirements of the existing systems.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since system function and operation are not affected. The piping changes meet the code requirements of the original piping.
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 addressed in the Technical Specifications. No failure points are decreased, and no acceptance limits are increased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-174 - Rev. 0

Replace the Target Rock SRV pilot solenoid valves with an upgraded model qualified to 10 CFR 50.49 requirements and having a 10-year service life. Replace certain Agastat relays with a more reliable model.

1. The 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 of the SRVs and ADS is not affected. The replacement valves and air operators are fully qualified and have a more reliable design than the existing valves and air operators. The replacement relays provide additional assurance the SRVs will operate as designed. The consequences of a malfunction of an SRV remain the same as before 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 this design change does not adversely affect the safety-related function and operation of the SRVs and the ADS. System reliability is improved by this design change. The replacement relays perform functions similar to those of the existing relays.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the setpoint, function and operation of the SRVs are not affected by this design change. No acceptance limit is increased, and no failure point is decreased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-182 - Rev. 0

Exchange the health physics office and the chemistry counting room locations to improve office layout and minimize project costs, upgrade chemistry countings, post-accident sampling, and associated systems to comply with revised 10CFR20 regulation. Revise the FSAR per the modifications.

1. The 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 changes are being made to any safety-related systems or systems important to safety. No new failure modes are introduced by this modification. All changes are seismically analyzed. Radiation levels are acceptable for the modified facilities.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no safety systems/structures/components are degraded by implementing this modification. No new failure modes are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not increase any acceptance limits or decrease any failure points.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-184 - Rev. 0

Replace the undervoltage alarm relays for the 4160-V essential buses with more accurate relays, associated time delay relays, and fuses located on the low side of the control potential transformer.

1. The 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 functional changes to the protective relaying system will result from this design change. The replacement relays do not perform a safety-related function, and are isolated from the safety-related 4160-V buses potential by safety-related fuses. The fuse replacement improves cable protection and equipment isolation.
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 created. The nonsafety-related relays replaced per the design change are isolated from safety-related components and functions.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no Technical Specifications parameters are affected by the modification. No acceptance limits are increased, and no failure points are decreased.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

91-190 - Rev. 1

Abandon the carbon drying heaters and associated control circuitry for SBTG filter units T46-D001 A&B. Revise Unit 1 FSAR figure 5.3-1, sheet 1 of 2, per the modification.

1. The 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 modification does not affect the function of the SBTG system or any other equipment important to safety. The heaters operate only when the system is in a standby mode. Any contribution to the consequences of a safety-related equipment failure due to a system malfunction will be the same as before abandoning the heaters and associated control circuitry.
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 system is unchanged by the modification. No new equipment malfunction possibilities are introduced by abandoning the heaters and associated control circuitry.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operability of the SBTG system and other safety-related equipment is not affected by the modification. No acceptance limits or failure points are affected.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-007 - Rev. 0

Remove RHR head spray valves 1E11-F022 and -F023, and all associated piping inside the drywell, including check valve 1E11-F019, controls and circuits, and instrumentation that provides head spray piping flow information to the MCR. Revise applicable Unit 1 FSAR sections per the modification.

1. The 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 modification meets the design, material, and construction standards applicable to RHR system. RHR operation and its interface with other systems are not affected. The affected drywell penetration is plugged to allow pressure testing as required. The spare containment piping and welded plug were tested for containment leakage. No additional loads are applied to the system. The head spray has no safety function, and no credit was taken for its use in current safety evaluations or emergency operating procedures.
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. No new processes, equipment, or systems are added. The modification does not adversely impact the operability or reliability of the remaining safety-related equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the limiting conditions for operation and surveillance requirements for containment isolation valves and the applicable bases are not affected. No acceptance limits or failure points are affected.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-011 - Rev. 1

Relocate the EHC pressure transmitter, pressure switches, and pressure indicator from the EHC skid to a seismically supported rack to prevent a main turbine trip caused by hydraulic pump motor vibration. Also, modify the EHC standby pump auto start on running pump trip, thereby providing a prompt EHC pressure backup to avoid an unnecessary turbine trip from low EHC fluid pressure.

1. The 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 modification enhances system reliability and minimizes the potential for unnecessary turbine trips. The function and operation of the system are not affected, and no new failure modes are introduced. The worst-case failure of the system is a turbine trip, which is addressed 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 equipment important to safety is altered in function, integrity or operation. This design change enhances system reliability by avoiding unnecessary turbine trips.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this design change concerns a nonsafety-related system. No acceptance limits or failure points are affected.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-027 - Rev. 0

Add metal supports to the rack assemblies inside the inboard junction box of penetration 1T52-X102A.

1. The 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 modification has no adverse effect on the seismic integrity of the box per calculation SCNH 92-042, and the supports are seismically rugged. The function and operation of safety-related systems are not impacted, since the penetration wiring is either reconnected to the same points on the terminal blocks or spliced together with qualified splices. Primary containment integrity is not affected.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since all systems operate as originally designed. The circuits are either reconnected to their original termination points or are spliced with qualified splices. No new accidents or events are created as a result of this design change, since 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 containment integrity is not affected by this design change. This change complies with the requirements of Technical Specification 3/4.7.A.2.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-051 - Rev. 0

Install the data acquisition and analysis system for Units 1 and 2 to monitor system parameters for HPCI and RCIC. Remove speed recorders E41-R006 from both units' systems. Revise Unit 1 FSAR figure 7.4-3 (sheet 6 of 8) to reflect the deletion of HPCI/RCIC speed recorder 1E41-R006.

1. The 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 control signals connected to the DAAS are isolated such that a failure within the DAAS does not propagate to the HPCI/RCIC control circuits. This modification has no impact on HPCI/RCIC availability/capability, but does enhance the systems' reliability and performance.
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 meets all existing design, construction, and inspection requirements. No new accident mechanisms or new modes of failure/equipment malfunctions are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification has no impact on the operation and performance of the HPCI and RCIC systems.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-057 - Rev. 0

Replace Unit 1 PSW system valve 1P41-F363 with a spool piece to avoid flow blockage from the turbine building, reactor building, and MCR chillers. Revise Unit 1 FSAR figures 10.7-1, sheet 3 of 7, and A.2-11, sheet 3 of 7, per the modification.

1. The 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 eliminates the risk of the valve failure. System response 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 meets all existing PSW system design and construction requirements. No new modes of failure or accident mechanisms are created by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the reliability of the PSW system is not adversely affected. No acceptance limits or failure points are affected by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-065 - Rev. 0

Rotate the valve stem of HPCI turbine steam supply isolation gate valve 1E41-F001 to the vertical position to reduce frequency of packing leaks.

1. The 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 modification ensures operation of the valve in accordance with design requirements. The reliability of the valve is improved by the design change. Neither system response nor any other 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 the change meets all existing system design, construction, and inspection requirements. No new modes of failure or accident mechanisms are introduced by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the valve design, with respect to valve closure, is not changed by the modification. No acceptance limits or failure points are affected.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-067 - Rev. 0

Replace RCIC turbine inlet drain pot drain line valves 1E51-F059 and -F061 with bellows seal valves to reduce valve maintenance.

1. The 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 valves are constructed and installed in accordance with system design requirements. Neither system response nor any other 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 the function of the valve is not related to the operation of the RCIC system in a way that could change the consequences resulting from failures of safety-related systems. No new modes of failure or accident mechanisms are introduced by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operating limitations for the system are not affected by the modification. No acceptance limits or failure points are affected.

UNIT 1/COMMON DESIGN CHANGE (SAFETY RELATED)

92-076 - Rev. 0

Remove and plug the packing leak-off and valve bonnet vent lines of the recirculation suction and discharge valves. Revise the Unit 1 FSAR figures 4.3-2 and A.2-4 per the modification.

1. The 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 provides system stress analysis, materials, installation, and examination requirements per ASME requirements. A failure of the plugged vent or leak-off line is bounded by the existing LOCA analysis.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this design change does not affect the operation of the system. The failure modes of the system remain unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operating limitations of the Technical Specifications are not affected by this design change. No acceptance limits or failure points are affected by the modification.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-081 - Rev. 0

Install a qualified fuse to provide isolation between control amplifier 1E11-K610 and the Class 1E power supply.

1. The 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 minimizes the potential of a non-Class 1E component failure from adversely impacting Class 1E equipment. No function or accident response of equipment important to safety is altered by this modification. No new safety interfaces are established.
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 provides design measures to protect the integrity of Class 1E power. No safety equipment is adversely affected by this change. No new failure modes are created. This change ensures that a malfunction of the amplifier will not result in a malfunction of any safety-related equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification ensures the reliability and integrity of the Class 1E power supply. No setpoints, safety limits, or failure points are impacted by this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-092 - Rev. 0

Replace the 5th stage heaters low level control valves 1N22-F201 A and B, with larger capacity valves. Revise Unit 1 FSAR figure 11.1-3, sheet 1, per the modification.

1. The 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 requirements of all applicable codes and standards. No change to the system interface, response, or instrumentation accuracies will result from this modification. 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 no new modes of failure are introduced. The affected systems are not operated outside of their design and testing limits.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not alter the function or availability of any system or equipment.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-102 - Rev. 0

Change the Unit 1 pipe specifications to allow replacement of the condenser bay carbon steel piping with chrome-moly piping, as necessary, due to flow accelerated corrosion. Add a note to Unit 1 FSAR figures 11.1-1, sheet 1 of 3, 11.1-2, sheet 1 of 4, and 11.1-3, sheet 1 of 5.

1. The 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 replacing carbon steel piping with chrome-moly meets or exceeds the design, material, and construction standards applicable to the modified systems. The systems' function and operation remain 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 adversely affect the operation and function of any system to which this evaluation applies. System operating characteristics and functions are not affected.
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 the modification. No allowable limits or failure points of any component or system are affected by this change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-114 - Rev. 0

Install a permanent ladder and platform in the Unit 1 torus room to allow safe access to HPCI turbine exhaust drain line valve 1E41-F022.

1. The 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 systems are affected by the change. The installation is seismically analyzed for II/I 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 new accident types are created by the modification. Seismic requirements are satisfied, and no safety-related equipment is impacted.
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.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-127 - Rev. 0

Replace 1G41-F041 (fuel pool makeup from condensate storage valve) with a new valve and operator designed to correct operational problems. Reroute the piping to allow for a vertical operator orientation. Revise FSAR figure 10.4-1 per the modification.

1. The 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 valve and piping are designed and manufactured per ASME requirements. The response characteristics of the valve and system performance are not affected by this modification. The piping system and supports are analyzed to ensure seismic Category I integrity.
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 does not affect the operation of the system or the valve. No new failure modes are introduced by this modification.
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 by this modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-129 - Rev. 0

Add manual isolation valves with test connections upstream of RBCCW containment isolation valve 1P42-F051 and downstream of valve 1P41-F052.

1. The 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 valves to the non-safety portion of the system is not associated with any accident previously evaluated in the FSAR. The function of the RBCCW system is not affected.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the modification is performed under the same design criteria as the original system and does not degrade RBCCW system structural integrity. The valves are passive components that are normally open.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since operation of the RBCCW system is not addressed in the Technical Specifications. The system does not perform safety-related functions, and the valves are passive components.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-132 - Rev. 0

Replace the following switches to improve the reliability of the FPC system level instrumentation and prevent water from the SFP from overflowing into the reactor building ventilation ducts through openings in the SFP walls above the normal pool level:

1) SFP level switch with an RTD-based electronic standpipe assembly and 2) replace the skimmer surge tank pneumatic transmitter/switch configuration with a pressure switch connected directly to each skimmer surge tank instrument tap for low level alarm. Delete the skimmer surge tank high level and low-low level alarms which do not provide the operators with useful information.

1. The 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 replaces nonsafety-related components with components that perform the identical as-designed functions. The replacement of these components will enhance the operation of the FPC system level switches/alarms because of improved reliability and accuracy.
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 increases the reliability and accuracy of the FPC system level switches/alarms. The design functions of these switches remain the same. The FPC level switches/alarms are nonsafety related and do not interface with any safety-related systems or components.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the SFP system margin of safety in the basis for Unit 1 Technical Specification 3.10.D is not impacted by this modification due to the alarm setpoint of the SFP level sensor.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-139 - Rev. 0

Install a light on the wall of the airlock (Stairwell no. 4) leading from the reactor building to the turbine building roof. Although the light fixture is not a safety-related piece of equipment, it will be mounted on the wall of safety-related structure.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because adding the light does not affect the structural integrity of the reactor building stairwell wall no. 4. No equipment important to safety is located in the affected areas.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the light fixture meets all applicable design and construction requirements. No new modes of failure are introduced by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new light fixture does not affect the structural integrity of the affected areas.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-140 - Rev. 0

Raise the setpoint for PSW pressure switches 1P41-PS-N512 and -N513 from 85 psig to 95 psig. The switches determine when the standby service water pump is automatically started in the event of a total loss of flow in a division of the PSW. Revise Unit 1 FSAR figure 10.7-1, sheet 1 of 7, per the modification.

1. The 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 improves the availability of the PSW pump. The setpoint is low enough that an inadvertent start of the standby pump is unlikely. The function of the switches is 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 the mode of operation and the function of the system and associated pressure switches remain unchanged. The setpoint is low enough to prevent spurious operation of the standby PSW pump.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the affected setpoints are not addressed in the Technical Specifications.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-142 - Rev. 0

Convert the main turbine control valve scheme from full-arc admission to partial-arc admission.

1. The 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 essentially returns the main turbine to its original design parameters. For reload 14, the plant was analyzed using full-arc admission; the use of partial-arc admission is bounded by that analysis. A failure of the control valves will result in the same effects as failures analyzed previously.
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 mechanisms beyond the bounds of the current analysis are introduced by this design change. No new types of failure modes that can affect any equipment important to safety 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 by this design change. The parameters established in the Technical Specifications remain the same.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-144 - Rev. 0

Eliminate a single-failure vulnerability in the river intake structure ventilation system by modifying the power supply for fan X41-C009C and the fan controls from the Unit 2 Division 1 power source. A single failure could have caused the loss of all ventilation fans. The change upgrades the system to safety-related. Both units' FSARs are revised per the modifications.

1. The 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 ensures the operability of the ventilation system at all times, thus decreasing the probability of a failure of the PSW and RHRSW equipment. The consequences of a malfunction of equipment important to safety are not increased by the modifications.
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 and RHRSW systems will continue to perform their original design functions. No new failure modes that can affect any equipment important to safety are introduced. The single-failure vulnerability in the system is eliminated by implementing these modifications.
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 due to the modifications.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-154 - Rev. 0

Change the annunciator logic for the turbine control valve fast closure and stop valve scram bypass to provide a true scram channel bypass annunciation. Add a new annunciator for the turbine control valve fast closure and stop valve scram bypass to provide one-out-of-two-twice 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 change satisfies the FSAR commitment to IEEE 279-1971 requirements. Trip functions of the subject relays are not affected and the safety-related relays are isolated from the nonsafety-related components. The initiation logic for the scram channel bypass is not degraded 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 accident/failure modes are introduced. No changes to the equipment function and operation are required.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the change does not affect any setpoints or parameters specified in the Technical Specifications.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-155 - Rev. 0

Replace all ASCO 206 series normally energized AC solenoid valves used in applications requiring environmentally qualified components with ASCO NP-8320 or NP-8321 solenoid 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 modification ensures the affected valves operate according to design requirements. The operating environment, intended function, and system interfaces are not changed. No previous accident scenarios are affected. The reliability of the valves is improved, since the failure mode of the ASCO 206 series AC valves is removed by replacing them with lower temperature coil solenoids.
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 does not affect the operation or function of the system or the valves. No new failure modes are introduced by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not alter the function or availability of any safety-related system. Valve design with respect to valve position is not affected.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

92-163 - Rev. 0

Replace station service batteries 1A and 1B due to continuing problems with cracking cell jars. Revise Unit 1 FSAR subsection 8.5.3 per the modification.

1. The 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 affected systems and the operator response to the affected systems remain the same. No new modes of failure are introduced 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 replacement equipment is functionally equivalent to the existing equipment, and has equivalent or enhanced operational capabilities. The function and operation of the affected systems are not changed.
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 failure points, acceptance limits or safety limits specified in the Technical Specifications.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-001 - Rev. 0

Install a portion of the piping, electrical conduit, wiring, and terminal boxes necessary to support the decay heat removal system, which provides cooling capacity for the spent fuel pool during refueling outages. (Installation of remainder of the system will be a subsequent DCR).

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because there are no credible methods by which the modification could affect plant nuclear safety. This design change meets Seismic II/I criteria and maintains secondary containment integrity. The modification places the system in a sealed, inactive state.
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 places the system in a sealed, inactive state. The requirements for storage of spent fuel or the temporary storage of a full core offload in the spent fuel pool 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 modification does not affect any parameters discussed in the Technical Specifications. No acceptance limits or failure points are affected by this design change.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-002 - Rev. 0

Replace the RPV shroud access hole covers with circular plates to be bolted to the shroud support shelf.

1. The 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 modification meets or exceeds the applicable design, material, and construction standards as described in the FSAR. No known failure mode that could directly cause any of the accidents or degrade any component designed to prevent accidents is associated with the replacement hole covers. This change does not affect/degrade other RPV internals.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this design change does not affect any fission product barrier, would not increase any radiation source term, and would not prevent any component from performing its safety-related function. No new malfunction is introduced due to implementation of this design change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not affect any accident or transient analysis. The MCPR safety limit remains valid because, even with a small increase in bypass flow, the total core flow uncertainty remains below the value used in the statistical analysis to generate the safety limit.



UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-010 - Rev. 0

Add stiffeners to the seal plates of two of the supports/ penetrations, 1E21-PEN#13 and 1E11-PEN#25, to meet the code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the modification ensures compliance with code requirements. System operation and function remain unchanged.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the modification upgrades the pipe supports. System function and operation are not impacted by this design change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification ensures compliance with code requirements.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-025 - Rev. 0

Add capped off taps to the narrow range reference legs of the RPV level instrumentation.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the modification has no effect on the reliability and function of the level instrumentation. No new failure modes are introduced. Containment isolation requirements remain unaffected 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 this design change meets the requirements of the necessary codes and standards. No new accident mechanisms/failure modes are introduced by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no setpoints, safety limits, or failure points are affected by the modification.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-027 - Rev. 0

Provide a path into the drywell for IRM detector "D" by connecting the detector circuit to the IRM cable in penetration 1T52-X100D.

1. The 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 prevent either the reactor from being scrammed on appropriate RPS inputs or the control rod withdrawal block. Applicable separation and single-failure criteria are acceptable. No seismic or environmental qualifications of the penetration or the RPS system are affected by this change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since 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 IRM circuitry, which is a part of the RPS, is designed as fail-safe. The modification does not alter the auto scram response. No acceptance limits are increased, and no failure points are decreased by this change.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

93-5001 - Rev. 0

Install a new isolation valve downstream of an existing drain valve on the main service air header in the turbine building to allow controlled drainage of condensables from the main service air header and to prevent air leakage from the existing valve.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the service air system is not involved in any accident evaluated in the FSAR. The existing and new valves do not perform any function important to safety. The valve and piping added meet the original piping code, design pressure and temperature requirements, and material specifications of the service air system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the equipment involved does not perform any function important to safety. This change incorporates piping codes and material specifications equal or superior to those required by the original design.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change only improves system operation and reliability and will not affect any setpoints or safety limits of any Technical Specifications required equipment.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

93-5007 - Rev. 0

Permanently install a clamp on the 2B SBT system line, inside the main stack mixing chamber, providing a seal to facilitate pouring grout around the 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 safety functions of the SBT system and the mixing chamber are not changed. This change does not affect the function 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 this change does not affect the function of any plant equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no equipment function is changed and the margin of safety is not affected.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

86-437 - Rev. 0

Replace the diesel generator fuel oil storage tank and day tank level probes and transmitters with Drexelbrook probes and transmitters. The existing Bindicator probes and transmitters are no longer manufactured, and replacement parts are unavailable.

1. The 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 probes and transmitters will not degrade or adversely affect the ability of the system to perform its intended function.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change will neither degrade any equipment nor prevent any system from functioning as stated in the FSAR. No new modes of failure are introduced. The replacement equipment will perform the same function as the existing equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect the Technical Specifications or any calibrated instrument range. The basis from which the Technical Specifications were developed is not changed.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

89-086 - Rev. 1

Replace existing GE INMAC control room monitors for PSW and RBCCW effluents with microprocessor controlled GE NUMAC monitors.

1. The 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 credit is taken for the operation of these monitors in the prevention or mitigation of any FSAR scenario. The operation of these monitors is not a precursor to any evaluated accident. The new monitors perform the same function as the old monitors. Neither monitor is safety related or interfaces with a safety-related system. The new monitors are more reliable than the old monitors. The consequences of a failure of the new monitors are no different than the consequences of a failure of the old monitors.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since system functions remain unchanged and no new failure modes are introduced. A seismic II/I design evaluation has been completed to ensure no seismic II/I hazards are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the new equipment performs the same function and monitors the operability requirements as defined in the Technical Specifications. During implementation of this DCR, the pressure differential between the PSW and the RBCCW Systems will be monitored to ensure compliance with Technical Specifications radioactivity monitoring requirements.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

90-178 - Rev. 0

Raise the HPCI and RCIC cooler setpoints to 100°F to minimize the possibility of auto start of the coolers.

1. The 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 of the coolers on HPCI/RCIC start is not affected by this change. The capability of the coolers to maintain room temperature within design limits is not affected by this modification. No change is being made to the function and operation of the coolers.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the operation and function of HPCI and RCIC equipment/components remain unaffected by this change. The coolers still automatically start and operate within design limits.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operation and setpoints of the coolers are not addressed in the Technical Specifications.



UNIT 2 DESIGN CHANGES (SAFETY RELATED)

90-237 - Rev. 0

Replace the motor and spring pack for the operator assembly of RCIC valve 2E51-F007 to comply with NRC 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 this modification does not affect any previously evaluated accident scenarios. Valve reliability is improved. No equipment important to safety is affected. Therefore, the consequences of safety-related equipment failure 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 the change meets all existing design and construction requirements of the RCIC system. No new modes of failure or new accident mechanisms are introduced by this change. No new equipment malfunction possibilities are introduced, since this modification improves valve reliability.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits and no failure points are affected.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-008 - Rev. 0

Change the transformer dielectric fluid from TF-1/TF-X to silicone for nonsafety-related switchgear as part of the PCB removal program. This switchgear has potential safety-related impact because loss of power to the switchgear could challenge certain safety systems.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. The properties of the retrofill fluids were reviewed and appropriate derating analyses performed to ensure the modified auxiliary supplies will provide adequate, reliable power and handle the current loads such that no system or equipment operation, response, or reliability will be affected. This modification will only be made with a suitable alternate power source supplying affected loads.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since these modified and derated transformers will still handle their current loads and no system operation, response or reliability is affected. Therefore, 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 transformers involved in this change are nonsafety-related and no system operation or response is affected. No allowable limit or failure point of any safety-related or important-to-safety system or equipment is altered.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-020 - Rev. 0

Add a sample/drain assembly to the PSW pump/motor oil lubrication system. Revise Unit 2 FSAR Figure 9.2-6, sheet 1 of 3, 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 modification meets the applicable design, material, construction, and seismic requirements. System response is not changed, and the consequences of a malfunction of a safety-related component are not increased.
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 or equipment malfunction possibilities are introduced. System function and operation are unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits or significant failure points are altered.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-071 - Rev. 01

Disconnect 10 of the nonfunctional annunciators associated with radwaste decon solution concentrator 2G11-D069. Revise Unit 2 FSAR figure 11.2-1, sheet 6 of 7.

1. The 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 operation of the concentrator is not required to meet any regulatory requirements. No 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 the modification does not introduce any new accident mechanisms. No new failure modes are created because no equipment important to safety is affected.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since safety limits defined in the Technical Specifications are not impacted/reduced by this change.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-079 - Rev. 0

Modify, replace, and add access doors for high radiation areas. Relocate the temperature switch from the TIP area to the steam chase area.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because neither the access doors nor the steam chase secondary area cooler temperature switch are considered in the accident scenarios addressed in the FSAR. The steam chase HVAC system and the barriers do not perform a safety-related function. No impact to safety-related equipment failure/malfunction is introduced.
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 meets all design requirements. No new modes of failure or equipment malfunction possibilities are introduced. System function and operation are unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no acceptance limits and no failure points are altered by implementation of this modification.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-118 - Rev. 0

Replace the temporary HWC verification equipment, which consists of two main parts: the ECP instrument console and the ECP vessel assembly, and relocate it permanently to minimize personnel man-rem exposure.

1. The 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 connection of the equipment will not adversely affect the seismic analyses, operation, or reliability of the interfaced recirculation and RWCU systems. Valves to be installed in the sample lines are safety-related, seismic Category I, environmentally qualified. The piping and supports, and the conduit supports were analyzed to ensure seismic integrity. Containment isolation valves can be closed from the control room to isolate the recirculation and RWCU systems connections to the HWC equipment should a break occur.
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 ECP vessel and supply piping will be shielded and the return piping will be routed to reduce personnel radiation exposure. No new failure modes are introduced. This design change meets the requirements of necessary codes and standards to preclude the possibility of adversely affecting other safety-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. The operability of equipment defined by the Technical Specifications is not affected.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-163 - Rev. 0

Replace valve 2E41-F008 in the HPCI test line with a new valve designed to resist cavitation. Revise the FSAR per the modification.

1. The 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 does not affect system performance during accident conditions. The valve is only used to test the flow requirements of the HPCI system. This change meets existing system design criteria. Failure of the replacement valve will result in the same effects as failure of the previous valve; therefore, the radiological consequences of malfunction 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 the failure modes of the replaced valve are the same as those of the previous valve. This change meets the requirements of all necessary codes and standards.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the system will be declared inoperable whenever the valve is in the open position. No acceptance limits are increased, and no failure points are decreased by implementing this modification.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

91-170 - Rev. 0

Implement the requirements of the Emergency Response Data System Rule set forth in the Federal Register on September 12, 1991. Revise Unit 2 FSAR Section 7.9 per the change.

1. The 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 system is in no way related to or interfaced with any equipment necessary for safe operation or shutdown of the plant. It is an informational device for the NRC to use during emergencies.
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's major function is to provide information on a post-accident basis to offsite users. The system does not interface with any safety-related equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the system is not required for safe operation or safe shutdown of the plant. No acceptance limits or failure points are affected by this change.



UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-017 - Rev. 0

Change setpoints for the differential pressure switches associated with each of the RHR service water pump strainers.

1. The 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 is within the range specified by the strainer manufacturer. The operation, response, and reliability of the strainer, the system, and any safety-related component or system are 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 setpoint change is within the range specified by the manufacturer. No new failure modes and no new accident mechanisms 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 by the setpoint change.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-035 - Rev. 0

Remove oil mist eliminators A & B high differential pressure (dp) annunciators on panel 2H11-P602 and the dp switches which actuate the alarms. Revise FSAR figure 7.7-3, sheet 4, 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 this modification does not affect any parameters considered in accident evaluations. The function and operation of the system and any equipment important to safety are not affected by this change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification does not change the function, logic, or operation of the equipment. Removal of the alarms does not affect any parameters that would cause an accident of a different type.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no setpoints or parameters are affected by this modification.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-052 - Rev. 0

Connect the system performance data points for the HPCI and RCIC systems to the data acquisition and analysis 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 the control signals connected to the DAAS are isolated such that a failure within the DAAS does not propagate to the HPCI/RCIC control circuits. This modification has no impact on HPCI/RCIC availability/capability, but does enhance the systems' reliability and performance.
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 meets all existing design, construction, and inspection requirements. No new accident mechanisms or new modes of failure/equipment malfunctions are introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification has no impact on the operation and performance of the HPCI and RCIC systems.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-074 - Rev. 1

Remove source of oil contamination in certain solenoid valves, replace the affected valves with approved substitute solenoid valves, and provide instructions for an 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 this modification improves the reliability of the affected valves. No previously evaluated accident scenarios are affected. The response of the radwaste and containment vent and purge systems is not adversely 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 a failure of the valves would result in the same effects as previously analyzed. The design change meets the requirements of applicable codes and standards to preclude the possibility of introducing any new accidents.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not alter the function or availability of any safety-related system. Valve design with respect to the valve closure is not changed.

UNIT 2/COMMON DESIGN CHANGES (SAFETY RELATED)

92-121 - Rev. 0

Alleviate noncondensable gas potential buildup in the RPV level instrument cold reference legs by providing a continuous purge with water from the CRD RWCU pumps seal purge subsystem at a rate greater than the condensing rate and less than the rate that will induce an unacceptable amount of error in instrumentation utilizing the reference leg.

1. The 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 components, which would degrade the integrity of the RCPB, or which would degrade the controls which are in place to protect the RCPB, are not added. The only postulated failure is a line break or high flow rate, which may impact water level indication; however, the system is designed to protect against these failure modes. The induced error to reference leg instrumentation due to the continuous purge system is insignificant when compared to instrument loop uncertainties. This design meets existing design seismic criteria.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since, due to the extremely low flow rate and isolation capability, no new accident scenarios or failure modes are created. The design has been evaluated for protection against nozzle failure due to thermal stresses, line break, high flow rates, inadvertent excess flow check valve closure, and check valve leakage.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the effects on channel uncertainties potentially affected by this change are insignificant compared to instrument loop uncertainties. This change does not affect any acceptance limits or failure points.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-133 - Rev. 0

Replace the following switches to improve the reliability of the FPC system level instrumentation and prevent water from the SFP from overflowing into the reactor building ventilation ducts through openings in the SFP walls above the normal pool level:

1) SFP level switch with an RTD-based electronic standpipe assembly and 2) replace the skimmer surge tank pneumatic transmitter/switch configuration with a pressure switch connected directly to each skimmer surge tank instrument tap for low level alarm. Delete the skimmer surge tank high level and low-low level alarms which do not provide the operators with useful information.

1. The 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 replaces nonsafety-related components with components that perform the identical as-designed functions. The replacement of these components will enhance the operation of the FPC system level switches/alarms because of improved reliability and accuracy.
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 increases the reliability and accuracy of the FPC system level switches/alarms. The design functions of these switches remain the same. The FPC level switches/alarms are nonsafety related and do not interface with any safety-related systems or components.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the SFP system margin of safety in the basis for Unit 2 Technical Specification 3.9.10 is not impacted by this modification due to the alarm setpoint of the SFP level sensor.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-141 - Rev. 0

Raise the setpoint for PSW pressure switches 2P41-PS-N301 A and B from 80 psig to 95 psig. The switches determine when the standby service water pump is automatically started in the event of a total loss of flow in a division of the PSW.

1. The 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 improves the availability of the PSW pump. The setpoint is low enough that an inadvertent start of the standby pump is unlikely. The function of the switches is 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 the mode of operation and function of the system and associated pressure switches remain unchanged. The setpoint is low enough to prevent spurious operation of the standby PSW pump.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the affected setpoints are not addressed in the Technical Specifications. The modification does not affect the Technical Specifications.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-143 - Rev. 0

Convert the Unit 2 main turbine control valve scheme from full-arc admission to partial-arc admission.

1. The 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 returns the turbine to its original design of utilizing partial-arc admission. The plant was analyzed to use full-arc admission, which is a more conservative condition. No contributions to any accident analysis are being made, and no equipment important to safety is affected by this change. Failure of the control valves will result in the same effects as failures analyzed previously; therefore, the radiological consequences of a malfunction 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 accident mechanisms beyond the original analysis are introduced. No new types of failure modes that can affect any equipment important to safety 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 by this design change.



UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-150 - Rev. 0

Lower the reactor trip setpoint value for the low reactor water level 3 scram and isolation functions per approved Technical Specifications Amendment 113.

1. The 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 applicable transient and accident analyses affected by this modification have been evaluated and the consequences of such events are not significantly increased. The new setpoint provides several additional seconds for operator actions in the event of a loss of feedwater flow transient and may avert an unnecessary reactor scram. No change to system or component maintenance or testing is proposed. The safety-related systems and components whose operation may be initiated by a level 3 low water level signal operate in the same manner as before. Therefore, no new failure modes are created.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the safety-related systems and components whose operation may be initiated by a level 3 low water level signal operate in the same manner as before. No new failure modes are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not involve a significant reduction in the margin of safety. Technical Specifications Amendment 113 ensures an adequate margin to the safety limits.

## UNIT 2 DESIGN CHANGES (SAFETY RELATED)

92-170 - Rev. 0

Modify the automatic isolation logics for refueling floor vent isolation valves 2T41-F003 and -F023 to allow the valves to close on a high radiation or LOCA signal.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the change allows the system to meet the original design intent. The change mitigates the effects of an accident by allowing operation of the valves for automatic secondary containment isolation. No new modes of failure are introduced, and the function and operation of a safety-related system are not affected 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 the function and operation of the dampers remain unchanged. No new potential accidents are created, because no new modes of failure are introduced. All subject dampers are normally open and fail closed.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the modification does not affect any of the acceptance criteria or safety limits specified in the Technical Specifications.

UNIT 2 DESIGN CHANGES (SAFETY RELATED)

93-023 - Rev. 0

Add a spacer ring to the inside of MSIV 2B21-F028C which has been experiencing a problem with galling of the 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 modification meets the material and construction standards applicable to the valve. The pressure boundary of the valve is not affected. This change does not alter, degrade, or prevent any actions described or assumed in 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 this design change has no effect on the function and operation of the system or any other support systems. No new failure modes are introduced by this modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the limiting conditions for operation and surveillance requirements for MSIV 2B21-F028C are not affected. No acceptance limits or failure points are altered by the modification.

UNIT 1/COMMON DESIGN CHANGES (NONSAFETY RELATED)

90-069 - Rev. 0

Reroute the exhaust ductwork from the sample hood in the reactor building on el 158 ft from the refueling floor exhaust ductwork to the reactor building exhaust duct system to allow usage of the sample hood during the modified mode of operation of the SBT 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 the exhaust air from both the refueling floor and the reactor building is filtered prior to discharge into the atmosphere. This change will not adversely affect the operation of either exhaust system. Neither the process radiation monitoring system nor the SBT system will be adversely impacted by this modification. The flow of fission gases will not increase such that a malfunction of the monitoring system is credible.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the present need to blank off the sample hood exhaust ductwork during the modified mode of operation of the SBT system is eliminated. This change will not affect the operation and function of the safety-related SBT system.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change will not affect the operation or function of any equipment important to safety.

UNIT 1/COMMON DESIGN CHANGES (NONSAFETY RELATED)

90-142 - Rev. 0

Replace various components of the SPDS with more reliable components. Revise FSAR figure 7.21-1 to reflect the MPL no. and name of the new screen copier.

1. The 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 system has no effect on the design basis accidents. No equipment important to safety is affected by the modification. The reliability of the SPDS is enhanced as a result of upgrading the components.
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 has no safety-related function or direct physical connection to any safety-related equipment. System reliability is enhanced by this modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the SPDS is not defined in the Technical Specifications. No equipment/system specified in the Technical Specifications is affected by this modification.

UNIT 1/COMMON DESIGN CHANGES (NONSAFETY RELATED)

93-5008 - Rev. 0

Cap the demineralized water line to the abandoned auxiliary boiler to prevent demineralized water loss from the old, out-of-service deareator. Revise the listing in Unit 2 FSAR paragraph 9.2.3.2 identifying equipment supplied demineralized water by the makeup water 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 only abandons nonsafety-related equipment that has no accident function. No ECCS, reactivity control, or other safety-related equipment is affected.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the installed cap will not change any plant operation or add any new equipment to be operated. This modification will neither stop the flow of demineralized water to other equipment nor affect demineralizer operation.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications are not altered, no value in the Technical Specifications is violated, and no LCO condition is entered.

UNIT 2 DESIGN CHANGES (NONSAFETY RELATED)

89-214 - Rev. 0

Install a new HVAC unit in the radwaste control room. Revise Unit 2 FSAR paragraph 9.4.3.2 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 adding a transformer fed from nonsafety-related power in the radwaste building does not affect any failure modes. This modification does not affect parameters which affect the radiological dose to the public. The radwaste control room HVAC system and the nonsafety-related MCC in the radwaste building are not affected. 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 this modification has no effect on the parameters used to determine the possibility of any accident or malfunction of equipment important to safety.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not include changes to systems referenced in the Technical Specifications. No acceptance limits are increased, and no failure points are decreased.

UNIT 2 DESIGN CHANGES (NONSAFETY RELATED)

92-153 - Rev. 0

Enhance the operability of the condensate demineralizer system by relocating backwash air pressure/flow and backwash water flow indications from el 112 ft to the demineralizer panel at el 130 ft. Revise Unit 2 FSAR figure 10.4-3 accordingly. Upgrade the existing conductivity recorders.

1. The 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 additional indications of backwash air and water flow enhance the operation of the condensate demineralizer system. This change meets existing design criteria. No system operation or response is negatively affected by this change. Failure of the system is not included 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 failure modes are introduced. The necessary codes and standards are met to preclude the possibility of introducing any new accidents. No equipment important to safety is affected by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no setpoints, safety limits, or failure points are affected by this modification.



UNIT 1/COMMON AS-BUILT NOTICES (SAFETY RELATED)

92-209 - Rev. 0

Revise Unit 1 FSAR figure 5.2-12 by adding a note indicating that both fans in drywell area coolers 1T47-B008 A&B are normally operated during summer months when high local or average temperatures are experienced inside the drywell.

1. The 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 drywell cooling units are not required to operate during accident conditions. This change maintains the qualified life of instrumentation in the upper part of the drywell.
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 maintains lower temperatures in the upper part of the drywell.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since lower temperatures can be achieved in the upper part of the drywell due to implementation of the modification.

## UNIT 2 AS-BUILT NOTICE

92-0358 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B005B. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required actions are affected by this change.

## UNIT 2 AS-BUILT NOTICE

92-0359 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B003B. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required actions are affected by this change.

## UNIT 2 AS-BUILT NOTICE

92-0360 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B002B. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required actions are affected by this change.

## UNIT 2 AS-BUILT NOTICE

92-0361 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B005A. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required actions are affected by this change.

## UNIT 2 AS-BUILT NOTICE

92-0362 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B003A. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required action, are affected by this change.

## UNIT 2 AS-BUILT NOTICE

92-0363 - Rev. 0

Install a jumper across the trip contact of the overload relay in the MCC which provides power to safety-related ECCS room cooler fan motor 2T41-B002A. The overload is jumpered so that the motor will run continuously without interruption.

1. The 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 failure of the ECCS room cooler fans is not a precursor to or a factor in any previously evaluated accident. Jumpering of the overload motor trip and an automatic standby fan start will not prevent standby unit activation. The fan will automatically start on an MCC breaker trip caused by excessive current or increasing room temperature. If the motor experiences an overload and fails, the fan will fail the same as if the motor were tripped.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since alternate and adequate means of standby unit activation remain such that ECCS room coolers, and ECCS reliability and operation are not impacted. No equipment related to safety is affected. Consequently, no new accident mechanisms are created, 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 this change does not decrease the failure points or increase the acceptance limits of any ECCS component/equipment. The activation of the standby unit is maintained. No Technical Specifications safety settings and limits, or required actions are affected by this change.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11B-001 - Rev. 0

Update Unit 2 FSAR Figure 2.4-34 to reflect the recent verification of the river discharge rating curve for low flows per Calculation SCNH 92-025.

1. The 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 in the rating curve has no adverse effect on the availability of water to the intake pumps, and safe shutdown operation of the plant is not affected.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the adequacy of water supply to the intake pumps is unchanged, and pump submergence remains adequate.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the water supply and pump submergence required for the safe shutdown operation of the plant remain adequate. No acceptance limits are increased, and no failure points which would reduce the margin of safety are decreased.



UNIT 1 10 CFR 50.59 SAFETY EVALUATION

11B-009 - Rev. 0

Revise Unit 1 FSAR paragraph 8.8.3.5.1, Item D, to read: "All conduits have numbers written at both ends and/or both sides of penetrations." Delete the words "in black ink with felt tip pen."

1. The 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 precursors are affected by this change. No equipment number important to safety is affected. This change does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. The response or impact of a malfunction of safety-related equipment is not changed.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced, and system function and operation remain 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 a margin of safety would occur.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11B-022 - Rev. 0

Revise Unit 1 FSAR section 7.8 to add the description of a pressure indicator and a pressure recorder to the general discussion of the reactor vessel instrument specifications.

1. The 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 updates the FSAR by including a description of existing pressure instruments which are nonsafety related and cannot act as accident precursors. This change does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. This change will not affect the response of any safety-related components, or increase the impact of a malfunction on any 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. System function and operation remain 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 a margin of safety would occur.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11B-033 - Rev. 0

Revise the Unit 1 FSAR to document opening the turbine building railroad doors to provide increased ventilation for the turbine building areas.

1. The 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 ventilation systems for the subject areas are nonsafety related. During an accident, the systems are assumed to shut down, leaving the turbine building at atmospheric pressure. Since no safety-related equipment is located near the turbine building railroad doors, the consequences of a safety-related equipment failure are independent of the doors' position. No credible turbine missile can be ejected through the open doors, hitting 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 no new radiation release paths are created by opening the subject doors. No safety-related equipment is affected by this modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the ventilation systems are not addressed in the Technical Specifications requirements, and neither the systems nor the doors are safety-related.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11B-046 - Rev. 0

Update the Unit 1 FSAR section 6.6 to address the testing sequence for HPCI pump discharge outboard containment isolation valve 1E41-F006 and HPCI pump discharge valve 1E41-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 this change neither affects the operation or response of any system nor does it impact the operability, integrity, and reliability of the valves. No physical change to the valves will result from this modification. The valves are continuously tested to ensure operation per plant procedures.
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 affect the operation or accident response of the valves or any system. No new accident mechanisms or modes of failure are introduced by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the operation and reliability of involved systems and valves remain unchanged. No acceptance limits and failure points are affected.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11B-047 - Rev. 0

Revise Unit 1 FSAR subsection 6.4.1 to delete the reference to a nonexistent locked valve crossover that could be opened during refueling so that systems other than HPCI and RCIC could draw from the 100,000 gallon reserve of the CST.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because requirements for condensate to support the operation of the involved systems are satisfied without the use of a crossover which would utilize the reserve for HPCI and RCIC. No accident response capabilities are impaired by the change. No malfunction of any involved equipment is dependent upon the operation or lack of operation of such a crossover.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the requirements for condensate to support the operation of involved safety-related systems are satisfied without the use of a crossover which would utilize the reserve for HPCI and RCIC. Neither the function nor operation of any system is affected by this change.
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. System function, operation, and required response remain unaffected by this change.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-009 - Rev. 0

Delete the following sentence from the Units 1 and 2 FSARs: "The water level is automatically maintained in the cooling tower." Standing orders stopped automatic level control from the makeup and diversion valves. One of the valves is now opened to a setting and the other valve is closed - then power is removed. Level is alarmed should it go high or low.

1. The 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 specifying that these valves will be positioned using manual control and power then removed reduces the possibility a seismic event could cut off output of service water. Components are nonsafety related and are not evaluated in any FSAR accident.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since equipment is nonsafety related and does not involve radiation. The circulating water system and the service water system continue to operate as described in the FSAR.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since systems will continue to function within the same parameters as previously described in the FSAR and Technical Specifications.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-013 - Rev. 0

Update Unit 1 FSAR paragraph 5.2.3.5.2 to clarify MSL and RWCU high ambient/high differential temperature isolation test logic. The isolation of the MSLs is prevented by only testing one channel at a time, and the isolation of the RWCU system is prevented by bypassing the isolation logic, rather than using the keylock test 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 these changes will not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. There are no inhibitions to the safety-related functions of the systems. There is no change in the response or increase of 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 system parameters or failure modes are introduced, and the logic, function, and operation of the systems remain unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since these changes do not have an impact on physical parameters or conditions such that a reduction in a margin of safety would occur.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-019 - Rev. 0

Revise Units 1 and 2 FSARs to delete statements that specify the following: If open, the RCIC torus suction valves automatically close upon receipt of the signals that initiate RCIC steam line isolation. These valves can only be closed by manual action from 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 there are no requirements for the suction valves to receive an automatic signal to close. This is consistent with the General Electric system design specifications and the functional control diagrams. FSAR accident analysis does not require automatic closure of the suction valves.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since previous accident possibilities remain unchanged. There is no effect on equipment important to safety.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since system design and operation stay as originally intended.



UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-020 - Rev. 0

Revise the Unit 1 FSAR to clarify that manual initiation for hydrogen and oxygen analysis is necessary. The hydrogen-oxygen analyzers are maintained in a hot standby condition so that when manually initiated, they can perform continuous sampling and meet Technical Specifications requirements. Revise to show correct recorder range for the standby gas treatment system outlet flow. The correct actual range encompasses the Regulatory Guide 1.97, Rev. 2, requirement of 0-110% of normal maximum flow.

1. The 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 probabilities and consequences are not affected by changing the stated instrument scale reading range. Equipment functions 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 no equipment, procedure, or activity has changed except to state actual scale ranges.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no change in Technical Specifications has occurred.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-022 - Rev. 0

Revise the Unit 1 FSAR to correct footnotes that indicate the reactor water sample line isolation valves are closed during normal power operation. The footnotes were revised to state that the valves are actually open as shown on P&ID H-16066, Rev. 29; Unit 1 FSAR Table 7.3-1; Unit 1 Technical Specifications Table 3.7-1; and Plant Procedure 34S0-B31-001-1S.

1. The 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 correction is an editorial change which does not affect system design or operation.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this is an editorial FSAR correction. No new accident scenarios or new modes of failure are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this is an editorial change which does not impact the basis for any Technical Specification.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-025 - Rev. 0

Revise the Unit 1 FSAR references to the drywell pneumatic system nitrogen compressors (now out of service) to establish consistency within the document, thereby accurately reflecting the changes in system configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the operation and function of the system are unchanged. This modification does not affect any accident in FSAR Chapter 14.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this editorial change establishes consistency with information incorporated in a previous amendment. The original design intention of the system has not changed. No new modes of failure are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not affect any parameter discussed in the Technical Specifications, nor does it add any that should be included. This change will not decrease any failure point or increase any acceptance limit of any Technical Specifications required equipment.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-032 - Rev. 0

Revise the Unit 1 and Unit 2 FSARs to clarify that the plant site has the option of using the X-Y recorder to trace core position versus gamma flux during traversing incore probe (TIP) system operation.

1. The 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 maintain the TIP system within the limits of the design bases.
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 system operation. No new accident scenarios and new modes of failure are introduced by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the TIP system's LCO and surveillance requirements for both units are not affected by this change.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATIONS

ADIF 11C-040 - Rev. 0

Revise the Unit 1 FSAR to clarify actions required to inject condensate storage water into the spent fuel pool. The valve must be opened locally, and the condensate storage transfer pump must be started from the main 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 the steps listed in the FSAR will raise the low water level in the fuel pool; the consequences of exposing fuel assemblies do not change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since locally opening a valve for condensate storage refill at the spent fuel pool does not add a requirement for personnel to be in the area. Responses to low pool water level already included in the FSAR require personnel to be in the area.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the low water level for which responses are being evaluated is below the Technical Specifications required level of 21 feet.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-047 - Rev. 0

Correct Unit 1 FSAR subsection 7.6.4 and Table 7.6-1 statement that when the mode switch is shifted from a "REFUEL" to "RUN" mode, RPS initiates a scram when three or more main steam lines with an isolation valve are less than 90% open, and not when the neutron monitoring system channels are downscale.

1. The 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 MSIVs are certain to be closed and neutron monitoring system is downscale in a refueling mode. No changes in process actions are contemplated.
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 initiation logic is not affected by the change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no Technical Specifications bases are involved in the change.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11C-058 - Rev. 0

Revise Unit 1 FSAR section 11.1 and Unit 2 FSAR subsection 10.2.1 to delete the statement "load follows as required by the automatic generation control of the Southern Electric System" since Plant Hatch does not use automatic load following 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 no accident precursors are affected. This change does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. No equipment important to safety is affected. No system response is changed, and the impact due to a malfunction of a safety-related component is not increased.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the operation of the plant remains unchanged. No new failure modes are introduced.
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 a margin of safety would occur.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11D-004 - Rev. 0

Revise the Unit 1 FSAR subsection 7.4.3 to correct references to the HPCI functional control diagrams contained in the text.

1. The 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 physical changes are made. No previously evaluated accident scenarios are affected. The accident response of equipment important to safety 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 no new accident possibilities or 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 surveillance requirements or accident responses are affected. No acceptance limits or failure points are affected by this change.



UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11D-021 - Rev. 0

Revise Unit 1 FSAR subsection 13.11.1 to delete references to the temporary new-fuel storage facility and add information regarding the current item control area (interim fuel storage area).

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this change has no effect on the fuel itself. The new facility meets all existing requirements and regulations for fuel handling and storage.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the interim storage area is not located near any equipment important to safety.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the activity does not affect Technical Specifications criteria. The Technical Specifications only address the storage of new-fuel in the permanent designated storage areas on the refueling floor.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11D-026 - Rev. 0

Revise Unit 1 FSAR subsection 8.4.3 to clarify the description of the diesel generator standby lube oil system operation.

1. The 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 function or operation of the system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure or accident scenarios are created by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not affect any Technical Specifications basis.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

11D-036 - Rev. 0

Revise the design flow rate for the Core Spray (CS) system listed in Unit 1 table 6.3-1 to agree with the pump design flow rate (Design Condition IV) listed in Unit 1 figure 6.4-2. Also, revise the CS normal system test (Design Condition I) flow rate in Unit 1 figure 6.4-2 to agree with the Unit 1 Technical Specifications system test flow rate specified in section 3/4.5.

1. The 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 is an editorial correction to make information listed in the FSAR consistent. The change does not affect the function and operation of the system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this is a system test flow rate change. No new accident possibilities/failure modes are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the change is in agreement with the Technical Specifications basis.

UNIT 1/COMMON DESIGN CHANGES (SAFETY RELATED)

12A-001 - Rev. 0

Revise the Units 1 and 2 FSARs to reflect the permanent removal from service of the radwaste evaporators and associated evaporator bottoms solidification systems, and the waste centrifuges and associated packaging equipment. Delete references to these systems to reflect the reanalysis of offsite dose from radioactive releases, and revise solid waste information associated with solidification of evaporator bottoms.

1. The 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 equipment is not credited in any accident analysis for preventing or mitigating an accident. Analysis shows that removal of this equipment has no effect on compliance with offsite dose limits. No physical removal of equipment is involved in 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 equipment is not credited in any accident analysis for preventing or mitigating an accident. Analysis shows that removal of this equipment has no effect on compliance with offsite dose limits. No physical removal of equipment is involved in this change. Since no new equipment is involved in this change, no new potential accidents or equipment failures are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change involves the removal from the FSARs of equipment not referenced in the basis for any Technical Specification. This equipment is not credited in any accident analysis for preventing or mitigating an accident.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

12A-004 - Rev. 0

Revise Unit 1 FSAR section 10.9 and Unit 2 FSAR sections 9.3.8.2 and 9.4 to state that the hot water heating coils/unit heaters are not needed to maintain design winter temperatures and their use is optional.

1. The 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 plant heating system and the minimum winter building design temperatures do not have a direct impact on any accident scenarios. The impact of initial compartment temperature on the final steady-state temperature following a 5-gpm steam leak was determined insignificant. No safety-related equipment and setpoints for the safety-related equipment and setpoints for the safety-related leak detection instrumentation are impacted by this change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change has no impact on system design functions. No new failure mechanisms or accident scenarios are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change has no impact on the setpoints for system instrumentation discussed in the Technical Specifications. The hot water coils/unit heaters do not perform any safety-related function.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

12A-016 - Rev. 0

Revise Unit 1 FSAR table 8.4-1 to agree with the values in calculations SENH 89-009, Rev. 6, Steady State Loading Emergency Burden 1E, 1F, and 1G during a LOCA/LOSP/SBO Event and SENH 93-009, Rev. 0, Unit 1 D/G Dynamic Loading Analysis.

1. The 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 safety-related loads are supplied power, as required, to perform their safety-related function. The calculations' values for loads on the diesel generators are within the manufacturer's ratings.
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 demonstrates that loads on diesel generators are within the ratings of the diesel generators. No new accident type or equipment malfunction possibilities are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change ensures electrical loads are within the ratings of the diesel generators.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

12A-019 - Rev. 0

Revise Unit 2 FSAR table 11.3-4 and Unit 1 FSAR table 9.4-3, per applicable system drawings and procedures to clarify the nomenclature for specific off-gas system alarms located 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 reflect any physical change to the alarms. The alarms remain capable of operating as designed in 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 there is no physical change to the affected equipment; no change in the operation, reliability, or capability of the system; and no impact on the interface of the system with any other system(s). 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 acceptance limits or failure points are affected by these changes.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

12A-024 - Rev. 0

Revise Unit 1 FSAR subsection 10.20.4 and Unit 2 FSAR subsection 9.5.8 to clarify the position on overriding the limit switches for movement of heavy loads closer to the MCR wall. Revise the FSARs to clarify that the control building HVAC equipment is located on the MCR roof, not on the roof of the control 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 these changes ensure load movements are covered by administrative controls. The turbine building crane does not perform any safety-related function.
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 created. The design functions of the crane are not affected, and no new failure mechanisms are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the crane does not perform any safety-related function and operation of the crane is not discussed in Technical Specifications requirements.



UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATIONS

12A-026 - Rev. 0

Revise Unit 1 FSAR Appendix K to describe the present coating used on the suppression chamber.

1. The 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 coating will not cause blockage of core or containment cooling suction lines or strainers by falling into the suppression pool, since: 1) the coating is qualified for this application, 2) the application procedure is appropriate, and 3) the coating will be inspected. Also, failure of the suppression chamber from corrosion due to incomplete coating is precluded by outage inspections which detect corrosion well before the minimum allowable thickness of the shell is reached.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created. The coating will not cause blockage of core or containment cooling suction lines or strainers by falling into the suppression pool, because: 1) the coating is qualified for this application, 2) the application procedure is appropriate, and 3) the coating will be inspected. Also, failure of the suppression chamber from corrosion due to incomplete coating is precluded by outage inspections which detect corrosion well before the minimum allowable thickness of the shell is reached.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced. The coating will not cause blockage of core or containment cooling suction lines or strainers by falling into the suppression pool, because: 1) the coating is qualified for this application, 2) the application procedure is appropriate, and 3) the coating will be inspected. Also, failure of the suppression chamber from corrosion due to incomplete coating is precluded by outage inspections which detect corrosion well before the minimum allowable thickness of the shell is reached.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F8B-002 - Rev. 0

Revise the FHA to extend the allowable time for the emergency lights to remain inoperable from 72 hours to 14 days before submitting a special report to 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 this change is consistent with similar requirements for the fire rated barriers. No new tests are added, and no accident analyses are affected by this change. The existing conditions of safety-related components and equipment 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 the conditions of safety-related components and equipment are not affected. No new modes of failure are introduced by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this modification does not involve safety-related components.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F8C-006 - Rev. 0

Add a reference letter to FHA Section 9.3, Appendix C which contains a compilation of various Appendix R correspondence between GPC and the NRC. The letter provides additional information and clarification to positions contained in the final safety evaluation report issued by the NRC for the Appendix R evaluation.

1. The 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 is a documentation change which provides additional information and clarification. No alteration to any physical equipment that handles or controls radiation hazards is required 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 purely is a documentation change which provides additional information and clarification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this documentation change provides additional information and clarification.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F8C-009 - Rev. 0

Revise applicable sections of the FHA to reflect clarification on establishing the resident combustible amounts as loading criteria rather than the transient combustible amounts. Provide additional justification for deleting the FHA statement regarding shield piping. Add details on the combustible loading modifications implemented per ADIF F7B-004.

1. The 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 calculations show that the amount of hydrogen to be added to the fire areas and zones is negligible to the overall fire loading of each. No equipment in the areas is affected by these 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 existing margin of safety in any of the subject fire areas is not affected. The hydrogen piping does not contribute to the malfunction of any equipment, in as much as its impact on any fire area or zone through which it passes is negligible.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not establish the margin of safety regarding acceptable amounts of combustible materials in fire areas and zones.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F8C-010 - Rev. 0

Add a list of emergency lighting units required by 10CFR50 Appendix R to FHA Appendix 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 this change ensures adequate emergency lighting will exist in all required areas. This change is in compliance with Appendix R requirements. No 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 the lights have no effect on the physical performance of any system or equipment.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the list complies with the requirements for Appendix R lighting.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F8D-005 - Rev. 0

Change the FHA Appendix B requirement for the fire barriers and emergency lights from "Applicable at all times" to "Applicable when Fuel is in the Reactor Vessel for the Affected Unit."

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the plant is in a safe shutdown condition during periods when fuel is removed from the reactor vessel. This change does not affect existing conditions of safety-related components and 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 activity does not change the existing conditions of any safety-related components or approved equipment. No new accident mechanisms or modes of failure are introduced by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not deal with any safety-related components.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

F9A-005 - Rev. 0

Revise FHA subsection 2.8.1 of section 9.2, Appendix B to state that the allowable pressure deviation for a halon cylinder cannot fluctuate more than 10% of full charge pressure with adjustments for temperature, per NFPA code requirements.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this modification does not alter compliance with code requirements. No equipment is affected by this modification.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this modification does not alter NFPA code compliance.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the Technical Specifications do not define any margins of safety for fire protection equipment.

UNIT 1/COMMON 10 CFR 50.59 SAFETY EVALUATION

REA HT-91791 - Rev. 0

Downgrade RWCU system code classification outboard of the containment isolation valves from USAS B31.7 Class II to ASME Code Class 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 this REA only affects the nonsafety-related portion of the system and does not change the function or operation of the RWCU system. The system can be isolated due to accidents downstream of the isolation valves 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 the downgrading of the nonsafety-related portion of the system is acceptable per NRC Regulatory Guide 1.26 (1972). There are no changes to equipment important to safety due to this REA.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since there is no direct mention of the main purpose of the RWCU system except for isolation provisions in the Technical Specifications bases.



UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-012 - Rev. 0

Revise the Unit 2 FSAR Table 3.10-3 to correct a discrepancy in the description of Class 1E equipment control panel 2H11-P606.

1. The 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 precursors are affected by this change. No equipment important to safety is affected. This change does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. The response or impact of a malfunction of safety-related equipment is not changed.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced, and system function and operation remain 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 a margin of safety would occur.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-019 - Rev. 0

Revise the Unit 2 FSAR paragraph 7.5.1.4.5 to clarify the procedure for reactor shutdown from outside the Main 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 no accident precursors are affected by the change. This change clarifies that transfer switches are key-controlled, not key-lock switches. The change does not alter, degrade, or prevent actions assumed to occur in previously analyzed accidents. No equipment important to safety is affected. The response or impact of a malfunction of safety-related equipment is not changed.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new modes of failure are introduced, and the function, operation, and logic of the reactor remote shutdown system remain 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 a margin of safety would occur.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-020 - Rev. 0

Revise the Unit 2 FSAR to clarify the neutron monitoring system's power supply and trip functions

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because the function and operation of equipment and systems in response to an accident are not affected by this change. The ability of the system to detect excessive power generation in the core and provide signals to the RPS is not affected. The power supply to the neutron monitoring system is not changed.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this change clarifies the system's power supply and trip functions only, and does not introduce any new accident scenarios. The function and operation of any equipment 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 Technical Specifications safety limits or safety system settings for this, or any other system, are altered by this change.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-031 - Rev. 0

Revise the Unit 2 FSAR section 8.3 to state the correct position for the diesel mode select switch, and to correct the spelling of the word "synchronized."

1. The 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 alter the operation and function of equipment important to safety. No functional requirements for a safety system during an accident are affected by these 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 modes of failure are introduced. The operating conditions of the equipment are not affected by these changes.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the changes have no impact on physical parameters or conditions such that a reduction in a margin of safety would occur. These changes are not in conflict with Technical Specifications requirements.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-034 - Rev. 0

Revise the Unit 2 FSAR to document opening of the turbine building railroad doors to provide increased ventilation for the turbine building areas.

1. The 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 ventilation systems for the subject area are nonsafety related. During an accident, the systems are assumed to shut down, leaving the turbine building at atmospheric pressure. Since no safety-related equipment is located near the turbine building railroad doors, the consequences of a safety-related equipment failure is independent of the door's position. No credible turbine missile can be ejected through the open doors, hitting 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 no new radiation release paths are created by opening the subject doors. No safety-related equipment is affected by the modification.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the ventilation systems are not addressed in the Technical Specifications requirements, and neither the systems nor the doors are safety-related.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-035 - Rev. 0

Revise the Unit 2 FSAR section 15.1 to delete the following statement: "Time required...is approximately 4 to 6 h." This statement is only an approximation of the time required for completion of operator actions for the turbine trip, pressure regulator failure, and excess coolant inventory events. It is not a requirement that the tasks be completed in the noted time frame.

1. The 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 actual operator actions in case of an actual event. No plant equipment/system necessary for mitigation of an accident 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 the change deals with the approximation of time necessary for completion of the listed actions. This represents no change to the accident analysis, and operator actions in case of an actual event remain 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 Technical Specifications requirements.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-636 - Rev. 0

Revise the Unit 2 FSAR to reflect the organizational changes due to incorporation of the Plant Modifications and Maintenance Support Department.

1. The 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 is administrative in nature, and does not affect the operation or description of any plant system or 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 change is purely administrative.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the change does not affect any LCO, surveillance requirement, trip setpoint, allowable value, safety limit, or definition.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-038 - Rev. 0

Revise Unit 2 FSAR paragraph 6.3.2.2.1 to delete the reference to a nonexistent locked valve crossover that could be opened during refueling so that systems other than HPCI and RCIC could draw from the 100,000 gallon reserve of the CST.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because requirements for condensate to support the operation of the involved systems are satisfied without the use of a crossover which would utilize the reserve for HPCI and RCIC. No accident response capabilities are impaired by the change. No malfunction of any involved equipment is dependent upon the operation or lack of operation of such a crossover.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the requirements for condensate to support the operation of involved safety-related systems are satisfied without the use of a crossover which would utilize the reserve for HPCI and RCIC. Neither the function or operation of any system is affected by this change.
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. System function, operation, and required response remain unaffected by this change.



UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11B-058 - Rev. 0

Revise the Unit 2 FSAR text and figures to reflect corporate management organizational 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 this change is administrative in nature, and does not affect the operation and description of any plant system or 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 change is purely administrative.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change pertains to corporate management organizational changes only, and is, thus, administrative in nature.

UNIT 2 10 CFR 50.59 SAFETY EVALUATIONS

11C-001 - Rev. 0

Revise the Unit 2 FSAR Figure 3.8-25 to show drywell penetration X-76 as a capped spare connection to agree with FSAR Tables 3.8-1, 6.2-5, and 6.2-6.

1. The 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 is a documentation change that achieves consistency with sections of the FSAR previously changed by ADIF 11A-005. This change does not include any physical modifications to 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 the revision is a documentation change and, therefore, does not alter or change any physical component, equipment, or structure.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this is a documentation revision that achieves consistency with changes incorporated by ADIF 11A-005.

UNIT 2 10 CFR 50.59 SAFETY EVALUATIONS

11C-006 - Rev. 0

Revise the Unit 2 FSAR paragraph 9.1.3.3 to show the actual location of high and low spent fuel pool level alarms; surge tank level alarms for high, low, and low-low conditions; and drain valve and makeup water control stations on panels on the same floor as the fuel pool cooling pumps (elevation 185 feet).

1. The 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 is being made to plant equipment. The description of equipment location is being revised. Location does not affect probabilities or increase consequences of malfunction for the condensate isolation valve, which is the sole safety-related device involved. Visual observations to set level were and still are the primary operator feedback.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the only safety aspect involved is maintaining water level above the spent fuel. High level alarming occurs for the spent fuel pool and each of the two surge tanks if the pool is overflowing. The only equipment involved important to safety is the condensate isolation valve. Location of controls does not create a malfunction.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the only Technical Specifications requirement related to this change is that 21 feet of water be maintained above the fuel. No bases are involved in alarms. No activity changes any margins.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-014 - Rev. 0

Revise the Unit 2 FSAR to correct the low charging water header pressure for control rod drive from low to high only. Also state that both the scram inlet and outlet valves are required to be open to illuminate blue indicating lights in the main control room. Change text figure reference from 4.2-15 to 4.2-16.

1. The 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 evaluated in the FSAR depends upon use of the equipment involved in the FSAR text change. Equipment involved consists of indicator lights, meter, and alarm lights, which are not active devices and are nonsafety related.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since equipment involved provides operator display information, and proper displays do not create accidents. The equipment is nonsafety related.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the devices in the equipment involved in this change is not addressed in any Technical Specification or basis.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-017 - Rev. 0

Revise the Unit 2 FSAR to clarify that manual bypassing of the primary containment and RPV isolation control system logic is controlled by emergency operating procedures which are performed at the direction of the operator.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because no functional or operational modifications are being made to any safety-related components. No previously evaluated accident scenarios are adversely affected. There is no change to the accident response of any 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 no physical changes are being made, and no new modes of failure or new accident mechanisms are introduced. The result of the analysis in which this change is being made is not affected.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since there is no change to the surveillance requirements or accident response for any plant equipment. No acceptance limits and failure points are affected.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-018 - Rev. 0

Revise the Unit 2 FSAR to delete statements indicating that the two RCIC steam isolation valves 2E51-F007 and 2E51-F008 are opened by a RCIC initiation signal, and that the two torus suction valves 2E51-F029 and 2E51-F031 automatically close upon receipt of signals that initiate RCIC steam line isolation.

1. The 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 RCIC is not taken credit for in a LOCA, and the operation of valves 2E51-F007 and -F008, with exception for auto-isolation function, is not a factor in any accident analysis. This change does not affect the primary containment isolation function for the RCIC steam supply isolation valves. A RCIC initiation signal is not required to open the steam supply isolation valves because the normal position for these valves is keylocked open. The isolation function of the torus isolation valves is manual, as indicated in Technical Specifications Table 3.6.3-1 for 2E51-F031. These changes will not affect the possible operation of RCIC during or after 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 possible operation of RCIC during or after an accident is not affected. RCIC valve lineups and system responses are not altered. No new modes of failure are created since the RCIC system will continue to function as designed with no reduction in component operability or reliability.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since these changes will not affect Section 3/4.7.3 of the Technical Specifications. The required response of the RCIC system is not impaired. The capabilities of the steam isolation valves to be automatically closed and torus suction valve 2E51-F031 to be manually closed for containment isolation as required by Technical Specifications Table 3.6.3-1 are not reduced. No acceptance limits are increased, and no failure points are decreased.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-026 - Rev. 0

Revise the Unit 2 FSAR to show that the refueling interlock situation 17 scram will result from MSIVs being less than 90% open, with the reactor mode switch in RUN and reactor pressure below 825 psig. Correct an editorial figure reference.

1. The 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, in the refueling mode, the MSIVs will be closed due to low pressure in the reactor vessel. During refueling, neutron monitoring downscale is certain and the MSIVs are closed; therefore, the probabilities are unchanged. Placing the reactor mode switch in RUN during refueling will cause a scram. However, the consequences are of no concern because the reactor is in the REFUELING mode.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since at the start of refueling, both conditions that would cause a scram (MSIVs being less than 90% open and reactor pressure below 825 psig), if the reactor were in RUN, already exist due to the reactor being shut down. Low downscale neutron monitoring is not discussed in a failure sense for refueling purposes.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the refueling interlock scram is not addressed in the Technical Specifications.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-033 - Rev. 0

Revise the Unit 2 FSAR to provide a more accurate description of the location of RWCU system leak detection and differential temperature monitoring instrumentation.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because this change only provides additional information descriptive of existing plant conditions already included in the FSAR. No 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 this change only provides additional information descriptive of existing plant conditions already included in the FSAR. No new accidents 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 this change only provides additional information descriptive of existing conditions already described in the FSAR. No safety limits and failure points are impacted by this change.



UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-034 - Rev. 0

Revise the Unit 2 FSAR paragraph 9.2.7.4 to delete the requirement for having heat tracing on all 18-inch residual heat removal service water (RHRSW) discharge piping below el 111 feet in the intake structure. This change resulted from implementation of DCR 82-107, which provided heat tracing at the intake structure on piping less than 12 inches in diameter.

1. The 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 was approved by DCR 82-107.
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 was approved by DCR 82-107.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the change was approved by DCR 82-107.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-043 - Rev. 0

Revise Unit 2 FSAR section 6.4 to delete the statement indicating that the MCRECS filter failure will be detected by radiation monitoring instrumentation.

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 MCRECS pressurization mode functions only in response to an accident and is not a precursor to any accident. The subject deletion, concurrent with the modified plant procedures, removing reference to the filter failure decreases the potential for an equipment malfunction to adversely affect accident recovery. The change reduces the consequences of the failure of equipment by removing reference to a potentially misleading instrument indication.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the credible passive failure has been analyzed, showing that this change will not create any new accident possibility. No new equipment failure possibility is created because no physical equipment or operational procedures have been added.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since no Technical Specifications requirements are affected. The Safety Evaluation Report does not mention the measurement of radiation downstream of the intake filters in acceptance of the system.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-048 - Rev. 0

Revise the Unit 2 section 4.2 to reflect the actual EOP criteria for the SBLC 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 no changes are being made to systems such as control rods, control rod drives, or the RPS, which protect against ATWS events. EOP criteria are based on maintaining the pressure suppression function of the primary containment and are more concise than the criteria presently in the FSAR. No physical changes are being made to the SBLC system or any other reactivity control system.
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 changes are being made to any systems or equipment. The system operation of is unchanged.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since operation and surveillance requirements of the SBLC system are not affected. The conciseness of the EOP criteria ensures the SBLC system will be initiated when necessary to prevent containment failure.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-051 - Rev. 0

Delete the portion of Note 27 in Unit 2 FSAR Table 3.8-5 requiring the venting and draining of the CRD insert and withdraw lines during performance of the ILRT.

1. The 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 physical changes are being made to any part of the RCPB, making it more susceptible to a LOCA. The CRD insert and withdraw lines are not part of the RCPB. No changes are being made to the operation of any 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 no physical changes are being made to any system or equipment. No system operation is changed. No unanalyzed modes of operation are being introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the CRD insert and withdraw lines are not part of the RCPB and this path does not represent a fission product release pathway.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11C-061 - Rev. 0

Revise the Unit 2 FSAR Appendix A to reflect the correct edition for Regulatory Guide 1.26. Delete the references to Regulatory Guides 1.42, 1.51 and 1.66 which have been withdrawn by the NRC, from the applicable sections.

1. The 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 commitments concerning ISI, NDE, and the gaseous radwaste treatment systems are affected by the changes. All equipment functions as assumed in normal and accident conditions. No changes are being made to the operation of equipment necessary 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 these changes do not affect the ISI and NDE plans. No new modes of operation are introduced. The operation and testing of applicable systems are unaffected by these changes.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since these changes have no impact on Technical Specifications requirements.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-003 - Rev. 0

Revise the Unit 2 FSAR paragraph 6.3.2.13 and table 6.3-6 to clarify the HPCI minimum flow line is not used for system testing and is closed during normal operation.

1. The 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 operation, performance, or original design criteria of the system.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no new accident possibilities or failure modes are created.
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 impacted by this change.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-010 - Rev. 0

Revise Unit 2 FSAR paragraph 9.2.4.2 to state that the volume of the sanitary water tank is 20,000 gallons, per related plant 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 the change is strictly editorial in nature. Hence, no previously evaluated accident scenarios are affected.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this is an editorial change. Therefore, no new accident possibilities or modes of failure are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change is editorial in nature and, therefore, does not affect any safety limits or failure points.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-014 - Rev. 0

Revise Unit 2 FSAR section 9.5 to specify the correct location of the operator consoles for the automatic exchange dial telephone system. Incorporate an editorial change concerning a site-area emergency.

1. The 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 system or accident analyses are affected by this change.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no changes to any safety-related system or component will result from this change. The telephone system is a nonsafety related system.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not involve any LCOs, safety limits, or limiting safety system settings.



UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-027 - Rev. 0

Revise Unit 2 FSAR table 9.1-3 (sheet 2 of 2) to change the design temperature of the spent fuel pool filter-demineralizer unit from 125°F to 150°F.

1. The 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 either the operation or function of the SFPCCS system or the original system design criteria.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since this is strictly a documentation change. No new accident possibilities or failure modes are created.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not affect the operation of any plant system or equipment.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-037 - Rev. 0

Revise Unit 2 FSAR table 3.8-5 to clarify that primary containment spare penetration X-228B requires a type B test, not a type A test.

1. The 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 imposes more stringent leak rate testing requirements on the penetration. The configuration of the penetration seal is not changed.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since no changes are being made to the operation of the primary containment. Neither the configuration of the penetration nor any other portion of the primary containment is affected by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not involve any LCOs, safety limits, or limiting safety system settings. The margin of safety with respect to ensuring that leak rate limits remain within acceptable criteria may actually increase.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-039 - Rev. 0

Revise Unit 2 FSAR paragraphs 6.2.1.2.2 and 9.2.6.2 to replace the references to normal water level in the CST with references to minimum water level.

1. The 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 safety-related systems are not impacted by lowering the CST water level. This change does not present a concern for the secondary containment system as evaluated.
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 or modes of failure are created by this change.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this change does not impact the bases of the Technical Specifications for HPCI, RCIC, core spray, or the secondary containment systems.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-042 - Rev. 0

Correct a typographical error in Unit 2 FSAR subsection 8.2.1 and revise figure 8.2-2 to show the latest GPC generation, transmission, and primary distribution grid system configuration.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased, because these changes do not decrease the reliability of the offsite power grid or increase the probability of a LOSP. No equipment important to safety is affected by these 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 grid changes do not affect the reliability of safety-related equipment or cause it to operate differently.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the diesel generators and the dc system will supply the required power for plant shutdown.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

11D-043 - Rev. 0

Revise Unit 2 FSAR section 13.1 to incorporate the organizational changes in SNC and GPC.

1. The 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 are administrative and involve no physical alteration of the plant or changes to setpoints or operating parameters.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since LCOs, limiting safety system settings, and safety limits are not affected by the organizational changes. These changes are administrative and involve no physical alteration of the plant or changes to setpoints or operating parameters.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the lines of authority, responsibility, and communication remain well defined through all management levels to all operating organizational positions. These changes are administrative and involve no physical alteration of the plant or changes to setpoints or operating parameters.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

12A-025 - Rev. 0

Revise Unit 2 FSAR subsections 17.2.4 and 17.2.7 to add a description of the minor design change program. Revise subsection 17.2.15 and table 17.2-1 to 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 these changes neither alter the description of any plant system or component, nor result in any changes to installed equipment, component function, or component response.
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 are administrative and do not introduce any new modes of plant equipment operation or failure.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since these changes do not alter any Technical Specifications limiting condition for operation, surveillance requirement, trip setpoint, allowable value, limiting safety system setting, safety limit, or definition.

UNIT 2 10 CFR 50.59 SAFETY EVALUATION

F8E-004 - Rev. 0

Revise FHA Appendix I to include evaluations for two fire-rated doors.

1. The 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 fire rating for the affected doors is sufficient to withstand a maximum severity fire based on the combustible loadings of the fire zones. Managerial approval of compensatory measures is required when maximum loads are exceeded. The doors do not interface with any safety-related 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 design of the doors is not affected. The Technical Specifications limitations are well within the design criteria. The doors do not interface with any equipment important to safety.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since the doors provide adequate protection for a maximum severity fire in the areas affected.

UNIT 2 10 DVF 50.59 SAFETY EVALUATION

FSB-005 - Rev. 0

Revise FHA Table 1.1-2 to correct the location of two fire doors.

1. The 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 is purely editorial and does not affect 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 this editorial change to the FHA has no impact on any system or component.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since this editorial change has no impact on any system or component.



UNIT 2 10 CFR 50.59 SAFETY EVALUATION

RES ST-91051 - Rev. 0

Delete from the Unit 2 FSAR the incorrect statement, "This [a fast transfer scheme in the station auxiliary power distribution system to automatically switch the load on 4160-V buses 2A and 2B to startup transformer 2C upon transformer 2B failure] assures an uninterrupted supply to plant auxiliaries, thus preventing an unnecessary shutdown of the plant." The existing bus transfer schemes for Units 1 and 2 are essentially the same. Deleting the incorrect sentence in the Unit 2 FSAR brings it into line with the Unit 1 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 no new or unanalyzed safety concerns have been introduced. The system function and reliability are not affected, and the operability of equipment is maintained.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since the plant will remain in compliance with applicable codes and standards. The system will remain in a safe operating condition with no new failure modes introduced.
3. The margin of safety as defined in the bases of the Technical Specifications is not reduced, since there are no changes to any safety limits or setpoints.

## UNIT 1 TEST OR EXPERIMENT REQUESTS

92-005 - Rev 0

Determine the optimum liquid level for the feedwater heaters by adjusting the internal liquid level 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 design basis transient that 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 operation of both controllers can be monitored simultaneously as level adjustment 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.

## UNIT 1 TEST OR EXPERIMENT REQUESTS

93-003 - Rev. 0

Identify and quantify unit thermal efficiency losses by controlling given operating conditions and plant parameters important to unit heat rate.

1. The 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 established FSAR limits and analysis assumptions are maintained by all facets of this activity. Operating limits for reactor pressure, system controls, flows, and lineups required by this activity are within the bounds established by existing plant procedures. No system/component setpoints and/or functions are altered to accommodate this activity.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since established FSAR limits and analysis assumptions, as well as existing procedural limits for continued safe unit operation, are maintained. Contingencies for unexpected conditions or transients which may require operator action or intervention, along with the existing plant procedures to be utilized to return the unit to normal operating condition, are specifically identified.
3. No equipment associated with Technical Specifications is affected by this activity. Operating limits are procedurally imposed to ensure the margin of safety as defined in the bases of the Technical Specifications is not reduced.

## UNIT 1 TEST OR EXPERIMENT REQUESTS

93-004 - Rev. 0

Evaluate a new setpoint for the 1N21-F200A&B hydraulic skid which actuates the 1N21-F200A&B valves and increases the bleed down setpoint on pressure switches 1N21-N073B&D to a predetermined value.

1. The 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 pressure switches and valves are not safety related and are not addressed in the FSAR. The reactor feed pump minimum flow function is part of the original design for equipment protection. Therefore, the unit design is such that feedwater system logic can recognize and react to the operation of these components.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since increasing the setpoint of the subject pressure switches will make overall component and system operation more reliable. The new setpoint will prevent the hydraulic pressure from bleeding down low enough for the feedwater system pressure to overcome the hydraulic pressure of the actuator and allow the valve to lift off its seat and leak by during normal plant operation. This in turn will prevent internal valve damage due to leakage past seating surfaces.
3. The margin of safety is not reduced, since the subject pressure switches and valves are not addressed in the Technical Specifications.

## UNIT 2 TEST OR EXPERIMENT REQUESTS

92-005 - Rev. 0

Determine the optimum liquid level for the feedwater heaters by adjusting the internal liquid level 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 entered as applicable. Loss of feedwater heating is a design basis transient that 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 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.

## UNIT 2 TEST OR EXPERIMENT REQUESTS

93-001 - Rev. 0

Identify and quantify unit thermal efficiency losses by controlling given operating conditions and plant parameters important to unit heat rate.

1. The 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 established FSAR limits and analysis assumptions are maintained by all facets of this activity. Operating limits for system controls, flows, and lineups required by this activity are within the bounds established by existing plant procedures. No system/component setpoints and/or functions are altered to accommodate this activity.
2. The possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created, since established FSAR limits and analysis assumptions, as well as existing procedural limits for continued safe unit operation, are maintained. Contingencies for unexpected conditions or transients which may require operator action or intervention, along with the existing plant procedures to be utilized to return the unit to normal operating condition, are specifically identified.
3. No equipment associated with Technical specifications is affected by this activity. Operating limits are procedurally imposed to ensure the margin of safety as defined in the bases of the Technical Specifications is not reduced.

## UNIT 2 TEST OR EXPERIMENT REQUESTS

93-002 - 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% 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 inserting and withdrawing control rods. Deviations from that sequence are not permitted and control rods are not to be withdrawn beyond their pretest position.

The consequences of all RWE were analyzed by the General Electric Company 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. The consequences of an RWE at core thermal power greater than 30% are mitigated. Both channels of the RBM will be operable during the flux tilt test; therefore, the radiological consequences of an RWE will be no worse than those analyzed for the ARTS Program and referenced in the FSAR. The MCPR Safety Limit will remain unchanged. 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 that are designed for the sole purpose of detecting and mitigating the consequences of fuel failure during an operating cycle. Flux tilt 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 as 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 inserted and withdrawn control rods will only undergo a mild xenon transient. A 3D simulator code, which models 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.



DATA TABULATIONS AND UNIQUE REPORTING REQUIREMENTS

## OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 1993

This section has been compiled to satisfy the requirement of E. I. Hatch Unit 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 circumstances of all exposure of personnel at this facility. An indication of the effectiveness of the plant radiation program may be inferred from the large number of individuals with no measurable exposure or minimal dose.

The time period covered by this tabulation extended from January 1, 1993 through December 31, 1993. All monitored personnel were included in summary as provided under 10 CFR 20.407.(a)(2). Individual exposures as indicated by self-reading pocket ion chambers were recorded daily with use of an ALARA Computer System. These 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 limit. The corresponding ion chamber results as recorded on the disc dosimetry files were supplanted by thermoluminescent dosimeter measurements made over a period of approximately one 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 daily activities. There are six job categories of this nature and they are identified in the following table. Running totals of dose acquired in each of these categories were maintained for each person in his dosimetry file. Each dosimeter reading, in addition to being retained for exposure records, is added for individual exposure records, and is then 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 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 personnel category information required to

accomplish this completion. The individual running dose totals for each job were used by 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, as printed by the ALARA Computer, were also maintained.

By the use of the ALARA Computer System dosimetry, information has been compiled, 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 the information in the format specified by these requirements and the suggestions of the Regulatory Guides.

## REACTOR COOLANT CHEMISTRY

Tabulations on a monthly basis of SJAE isotopic values 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  
1993  
SJAE ISOTOPICS  
uCi/SEC

DATE 1993	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	Σ 6
Jan 21	2436	2.02 E0	2.95 E1	7.20 E2	4.89 E0	4.90 E1	2.00 E1	8.25 E2
Feb 18	2436	2.13 E0	3.03 E1	7.22 E2	5.07 E0	5.06 E1	1.84 E1	8.29 E2
Mar 5	2407	1.65 E0	2.58 E1	6.27 E2	4.29 E0	4.23 E1	1.85 E1	7.19 E2
Apr	outage							
May 27	2433	7.06 E-1	1.24 E1	3.10 E2	2.53 E0	2.16 E1	9.39 E0	3.56 E2
June 24	2434	7.55 E-1	1.31 E1	3.32 E2	2.62 E0	2.47 E1	1.22 E1	3.85 E2
July 14	2436	8.40 E-1	1.28 E1	3.58 E2	2.41 E0	2.17 E1	1.49 E1	4.11 E2
Aug 5	2436	1.60 E0	1.46 E1	3.75 E2	2.70 E0	2.14 E1	9.80 E0	4.25 E2
Sep 2	2436	1.01 E0	1.50 E1	3.05 E2	2.70 E0	2.36 E1	1.05 E1	4.48 E2
Oct 7	2436	1.00 E0	1.00 E1	2.56 E2	2.00 E0	1.80 E1	6.00 E0	3.03 E2
Nov 4	2436	9.11 E-1	1.20 E1	3.02 E2	2.35 E0	2.64 E1	9.05 E0	3.53 E2
Dec 23	2436	9.00 E-1	1.30 E1	2.89 E2	2.00 E0	1.90 E1	1.00 E1	3.34 E2

REACTOR CHEMISTRY

IODINES uCi/ml							
DATE 1993	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan 21	2436	1.01 E-5	4.60 E-4	1.56 E-4	1.91 E-3	4.74 E-4	1.41 E-4
Feb 18	2436	6.93 E-6	3.85 E-4	1.44 E-4	1.78 E-3	3.85 E-4	1.22 E-4
Mar 5	2407	2.67 E-5	4.36 E-4	1.61 E-4	2.06 E-3	3.64 E-4	1.51 E-4
Apr	outage						
May 27	2433	4.46 E-6	1.60 E-4	7.93 E-5	6.79 E-4	2.14 E-4	6.11 E-5
June 24	2434	4.27 E-6	2.24 E-4	9.58 E-5	8.02 E-4	2.56 E-4	7.32 E-5
July 14	2436	2.95 E-6	2.18 E-4	8.52 E-5	8.01 E-4	2.30 E-4	6.66 E-5
Aug 5	2436	7.55 E-6	2.62 E-4	9.84 E-5	9.49 E-4	2.55 E-4	8.10 E-5
Sep 2	2436	1.11 E-5	2.42 E-4	5.24 E-5	6.86 E-4	1.60 E-4	5.89 E-5
Oct 7	2436	3.42 E-6	1.66 E-4	6.78 E-5	5.76 E-4	1.56 E-4	5.05 E-5
Nov 4	2436	4.17 E-6	1.65 E-4	6.49 E-5	5.27 E-4	1.32 E-4	4.76 E-5
Dec 23	2436	6.74 E-6	1.97 E-4	7.88 E-5	7.03 E-4	2.05 E-4	6.42 E-5

UNIT 1  
1993  
SJAE ISOTOPICS  
uCi/SEC

DATE 1993	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	Σ 6
Jan 21	2436	2.02 E0	2.95 E1	7.20 E2	4.89 E0	4.90 E1	2.00 E1	8.25 E2
Feb 18	2436	2.13 E0	3.03 E1	7.22 E2	5.07 E0	5.06 E1	1.84 E1	8.29 E2
Mar 5	2407	1.65E0	2.58 E1	6.27 E2	4.29 E0	4.23 E1	1.85 E1	7.19 E2
Apr	outage							
May 27	2433	7.06 E-1	1.24 E1	3.10 E2	2.53 E0	2.16 E1	9.39 E0	3.56 E2
June 24	2434	7.55 E-1	1.31 E1	3.32 E2	2.62 E0	2.47 E1	1.22 E1	3.85 E2
July 14	2436	8.40 E-1	1.28 E1	3.58 E2	2.41 E0	2.17 E1	1.49 E1	4.11 E2
Aug 5	2436	1.60 E0	1.46 E1	3.75 E2	2.70 E0	2.14 E1	9.80 E0	4.25 E2
Sep 2	2436	1.01 E0	1.50 E1	3.95 E2	2.70 E0	2.36 E1	1.05 E1	4.48 E2
Oct 7	2436	1.00 E0	1.00 E1	2.66 E2	2.00 E0	1.80 E1	6.00 E0	3.03 E2
Nov 4	2436	9.11 E-1	1.20 E1	3.02 E2	2.35 E0	2.64 E1	9.05 E0	3.53 E2
Dec 23	2436	9.00 E-1	1.30 E1	2.89 E2	2.00 E0	1.90 E1	1.00 E1	3.34 E2

REACTOR CHEMISTRY

IODINES uCi/ml							
DATE 1993	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan 21	2436	1.01 E-5	4.60 E-4	1.56 E-4	1.91 E-3	4.74 E-4	1.41 E-4
Feb 18	2436	6.93 E-6	3.85 E-4	1.44 E-4	1.78 E-3	3.85 E-4	1.22 E-4
Mar 5	2407	2.67 E-5	4.36 E-4	1.61 E-4	2.06 E-3	3.64 E-4	1.51 E-4
Apr	outage						
May 27	2433	4.46 E-6	1.60 E-4	7.93 E-5	6.79 E-4	2.14 E-4	6.11 E-5
June 24	2434	4.27 E-6	2.24 E-4	9.58 E-5	8.02 E-4	2.56 E-4	7.32 E-5
July 14	2436	2.95 E-6	2.18 E-4	8.52 E-5	8.01 E-4	2.30 E-4	6.66 E-5
Aug 5	2436	7.55 E-6	2.62 E-4	9.84 E-5	9.49 E-4	2.55 E-4	8.10 E-5
Sep 2	2436	1.11 E-5	2.42 E-4	5.24 E-5	6.86 E-4	1.60 E-4	5.89 E-5
Oct 7	2436	3.42 E-6	1.66 E-4	6.78 E-5	5.76 E-4	1.56 E-4	5.05 E-5
Nov 4	2436	4.17 E-6	1.65 E-4	6.49 E-5	5.27 E-4	1.32 E-4	4.76 E-5
Dec 23	2436	6.74 E-6	1.97 E-4	7.88 E-5	7.03 E-4	2.05 E-4	6.42 E-5

UNIT 2  
1993  
SJAE ISOTOPICS  
uCi/SEC

DATE 1993	MWT	Xe-133	Xe-135	Xe-138	Kr-85m	Kr-87	Kr-88	Σ 6
Jan 8	2436	9.46 E1	1.20 E3	3.00 E4	2.41 E2	2.04 E3	7.84 E2	3.43 E4
Feb 12	2436	6.93 E1	1.11 E3	2.61 E4	2.10 E2	1.80 E3	7.18 E2	3.00 E4
Mar 1	2436	1.25 E2	1.14 E3	2.35 E4	1.96 E2	1.65 E3	7.43 E2	2.74 E4
Apr 10	2436	1.00E2	1.83 E3	4.75 E4	3.14 E2	3.22 E3	1.37 E3	5.44 E4
May 1	1803	8.01 E1	1.33 E3	3.06 E4	2.47 E2	2.05 E3	9.16 E1	3.44 E4
June 4	2067	4.53 E1	5.39 E2	1.48 E4	1.08 E2	9.53 E2	4.13 E2	1.69 E4
July 9	2066	3.00 E1	5.44 E2	1.44 E4	1.10 E2	9.07 E2	4.02 E2	1.64 E4
Aug 13	2070	5.89 E1	6.21 E2	1.53 E4	1.17 E2	9.94 E2	4.15 E2	1.75 E4
Sep 17	2066	5.20 E1	6.31 E2	1.66 E4	1.14 E2	1.13 E3	3.96 E2	1.89 E4
Oct 15	2066	3.76 E1	6.81 E2	1.77 E4	1.29 E2	1.25 E3	4.12 E2	2.02 E4
Nov 5	2069	5.00 E1	6.76 E2	1.76 E4	1.26 E2	1.14 E3	4.34 E2	2.01 E4
Dec 17	2062	5.20 E1	8.48 E2	2.06 E4	1.57 E2	1.34 E3	5.69 E2	2.36 E4

REACTOR CHEMISTRY

IODINES uCi/ml							
DATE 1993	MWT	I-131	I-132	I-133	I-134	I-135	DEI-131
Jan 8	2436	2.23 E-4	1.11 E-2	4.64 E-3	6.98 E-2	1.17 E-2	4.04 E-3
Feb 12	2436	2.51 E-4	8.51 E-3	3.96 E-3	5.18 E-2	1.01 E-2	3.35 E-3
Mar 1	2436	4.20 E-4	9.85 E-3	5.25 E-3	5.42 E-2	1.30 E-2	4.20 E-3
Apr 10	2436	3.78 E-4	1.15 E-2	7.56 E-3	8.15 E-2	1.96 E-2	5.86 E-3
May 1	1803	1.88 E-4	9.70 E-3	4.02 E-3	4.54 E-2	1.16 E-2	3.37 E-3
June 4	2067	3.33 E-4	8.09 E-3	3.91 E-3	4.15 E-2	9.94 E-3	3.22 E-3
July 9	2066	2.40 E-4	8.46 E-3	4.02 E-3	4.61 E-2	1.04 E-2	3.29 E-3
Aug 13	2070	2.43 E-4	8.50 E-3	4.00 E-3	4.90 E-2	1.07 E-2	3.36 E-3
Sep 17	2066	2.29 E-4	7.69 E-3	3.81 E-3	4.36 E-2	9.66 E-3	3.08 E-3
Oct 15	2066	1.67 E-4	5.80 E-3	2.85 E-3	3.37 E-2	7.31 E-3	2.33 E-3
Nov 5	2069	3.12 E-4	7.39 E-3	3.83 E-3	3.70 E-2	9.72 E-3	3.05 E-3
Dec 17	2062	1.76 E-4	7.28 E-3	3.19 E-3	4.40 E-2	8.90 E-3	2.79 E-3

SUMMARY OF PERSONNEL MONITORING ENDING DECEMBER 31, 1993

Estimated Whole-Body Exposure Range (rem)	Number of Individuals in Each Range
No. measurable exposure.....	1096
Measurable exposure less than 0.1 .....	572
0.1 to 0.25.....	323
0.25 to 0.5 .....	304
0.5 to 0.75 .....	211
0.75 to 1.0 .....	176
1.0 to 2.0 .....	141
2.0 to 3.0 .....	4
3.0 to 4.0 .....	1
4.0 to 5.0 .....	1
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	2829

This report is submitted in accordance with paragraph (a)(2) of 10 CFR 20.407.



**REGULATORY GUIDE 1.16 INFORMATION  
END OF YEAR REPORT - 1993**

<u>Work &amp; Job Function</u>	<u>No. Personnel (&gt;100 MREM)</u>			<u>Total Man-REM</u>		
	<u>Station</u>	<u>Utility</u>	<u>Contract</u>	<u>Station</u>	<u>Utility</u>	<u>Contract</u>
<u>Reactor Operations &amp; Surveillance</u>						
Maintenance & Construction	72	2	106	30.672	1.217	38.015
Operations	53	1	1	24.471	.799	1.247
Health Physics & Lab	36	1	18	17.521	.174	6.405
Supervisory & Office Staff	16	1	5	7.091	.224	2.477
Engineering Staff	12	0	13	4.697	.246	4.017
<u>Routine Plant Maintenance</u>						
Maintenance & Construction	107	0	133	38.050	.087	48.456
Operations	30	0	0	15.210	0.000	.076
Health Physics & Lab	31	0	25	14.417	0.000	6.851
Supervisory & Office Staff	6	0	3	3.600	.031	1.379
Engineering Staff	10	1	9	3.657	.348	4.021
<u>Inservice Inspection</u>						
Maintenance & Construction	10	0	147	5.444	0.000	61.165
Operations	8	0	0	2.063	0.000	.059
Health Physics & Lab	4	0	5	1.073	0.000	1.489
Supervisory & Office Staff	1	0	2	.338	0.000	1.063
Engineering Staff	3	1	10	.934	.139	4.804
<u>Special Plant Maintenance</u>						
Maintenance & Construction	110	3	255	52.835	2.204	110.460
Operations	10	0	0	3.335	0.000	.059
Health Physics & Lab	17	1	25	7.168	.461	12.241
Supervisory & Office Staff	5	0	2	1.577	0.000	1.435
Engineering Staff	5	0	20	2.733	.087	8.143
<u>Waste Processing</u>						
Maintenance & Construction	30	0	62	12.383	0.000	19.475
Operations	8	0	0	1.624	0.000	.059
Health Physics & Lab	6	0	19	2.571	0.000	7.838
Supervisory & Office Staff	1	0	0	.216	0.000	.484
Engineering Staff	0	0	2	.170	.034	.679

<u>Work &amp; Job Function</u>	<u>No. Personnel (&gt;100 MREM)</u>			<u>Total Man-REM</u>		
	<u>Station</u>	<u>Utility</u>	<u>Contract</u>	<u>Station</u>	<u>Utility</u>	<u>Contract</u>
<u>Refueling</u>						
Maintenance & Construction	9	0	126	3.174	0.000	47.517
Operations	16	0	0	4.655	0.000	.059
Health Physics & Lab	7	0	14	2.284	0.000	5.239
Supervisory & Office Staff	1	0	2	.434	0.000	1.006
Engineering Staff	0	0	8	.147	.034	2.802
<u>Totals</u>						
Maintenance & Construction	338	5	829	142.559	3.507	325.088
Operations	125	1	1	52.359	.799	1.560
Health Physics & Lab	101	2	106	45.035	.635	40.064
Supervisory & Office Staff	30	1	14	13.256	.255	7.844
Engineering Staff	<u>30</u>	<u>2</u>	<u>62</u>	<u>12.338</u>	<u>.887</u>	<u>24.465</u>
<u>Grand Totals</u>	624	11	1012	264.547	6.083	399.021