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Docket Nos. 50-321  
50-366

HL-6196

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

**Edwin I. Hatch Nuclear Plant  
Annual Operating Report for 2001**

Ladies and Gentlemen:

Enclosed is the Annual Operating Report for 2000 for Edwin I. Hatch Nuclear Plant Unit 1, Docket No. 50-321, and Unit 2, Docket No. 50-366. This report is submitted in accordance with the requirements of 10 CFR 50.59(b)(2) and Regulatory Guide 1.16.

Should you have any questions, please contact this office.

Respectfully submitted,

A handwritten signature in cursive script that reads "Lewis Sumner".

H. L. Sumner, Jr.

IFL/eb

Enclosure: 2001 Annual Operating Report for Edwin I. Hatch Nuclear Plant

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A001

**ENCLOSURE**

**EDWIN I. HATCH NUCLEAR PLANT - UNITS 1 AND 2**  
**NRC Docket Nos. 50-321 and 50-366**  
**Operating Licenses DPR-57 and NPF-5**

**ANNUAL OPERATING REPORT**  
**2001**

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## GLOSSARY

### ACRONYMS AND ABBREVIATIONS

ABN	as-built notice
AC	alternating current
ADS	automatic depressurization system
AHU	air handling unit
ALARA	as low as reasonably achievable
APLHGR	average power linear heat generation rate
APRM	average power range monitor
ARI	alternate rod insertion
ARTS	average power range monitor, rod block monitor, and Technical Specifications
ASME	American Society of Mechanical Engineers
ATWS	anticipated transient without scram
ATWS-RPT	anticipated transient without scram-recirculation pump trip
BHD	bottom head drain
BOP	balance of plant
BWR	boiling water reactor
BWROG	Boiling Water Reactor Owners Group
CFR	Code of Federal Regulations
COLR	Core Operating Limits Report
CRD	control rod drive
CS	core spray
CST	condensate storage tank
DAS	data acquisition system
DBA	design basis accident
DBE	design basis earthquake
DC	direct current
DCB	double cantilever beam
DCR	design change request
DCS	dry cask storage
DHR	decay heat removal
dP	differential pressure
DoCR	Document Change Request
ECCS	emergency core cooling system
ECP	electrochemical potential
EDG	emergency diesel generator
EFCV	excess flow check valve
EFPD	effective full power days
EFPH	effective full power hours
EHC	electrohydraulic control
ELI	Equipment Location Index
EOC-RPT	end of cycle-recirculation pump trip

## GLOSSARY

### ACRONYMS AND ABBREVIATIONS

EOF	Emergency Operations Facility
EPA	Environmental Protection Agency
ETS	Environmental Technical Specifications
EQ	Environmental Qualification
FHA	Fire Hazards Analysis
FPC	fuel pool cooling
FSAR	Final Safety Analysis Report
GE	General Electric
GL	Generic Letter
GPC	Georgia Power Company
HCU	hydraulic control unit
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
IRM	intermediate range monitor
ISFSI	independent spent fuel storage installation
ISI	inservice inspection
IST	inservice testing
LCO	limiting condition for operation
LDS	leak detection system
LLRT	local leak rate test
LLS	low-low set
LOCA	loss of coolant accident
LOSP	loss of offsite power
LPAP	low power alarm point
LPCI	low pressure coolant injection
LPM	loose-parts monitor
LPRM	local power range monitor
LPSP	low power setpoint
MCC	motor control center
MCPR	minimum critical power ratio
MCR	main control room

## GLOSSARY

### ACRONYMS AND ABBREVIATIONS

MCRECS	main control room environmental control system
MDC	minor design change
MPC	Multi-Purpose Canister
MOV	motor-operated valve
MPL	master parts list
MSIV	main steam isolation valve
MSL	main steam line
MSLRM	main steam line radiation monitor
MSR	moisture separator reheater
NMA	noble metals addition
NPSH	net positive suction head
NRC	Nuclear Regulatory Commission
NSSS	nuclear steam supply system
ODCM	Offsite Dose Calculation Manual
OPDRV	operations with the potential to drain the reactor vessel
OPRM	oscillation power range monitor
PAM	post accident monitoring
PASS	post accident sampling system
PCIS	primary containment isolation system
PCIV	primary containment isolation valve
P&ID	pipng and instrumentation diagram
PLC	programmable logic controller
PRB	Plant Review Board
PRNM	power range neutron monitor
PSW	plant service water
P/T	pressure/temperature
QA	quality assurance
RBM	rod block monitor
RCIC	reactor core isolation cooling
RCPB	reactor coolant pressure boundary
RCS	reactor coolant system
REA	Request For Engineering Assistance
RES	Request For Engineering Services
RFP	reactor feed pump
RFPT	reactor feed pump turbine
RG	Regulatory Guide
RHR	residual heat removal
RHRSW	residual heat removal service water
RMCS	reactor manual control system

## GLOSSARY

### ACRONYMS AND ABBREVIATIONS

RPS	reactor protection system
RPT	recirculation pump trip
RPV	reactor pressure vessel
RRS	reactor recirculation system
RSCS	rod sequence control system
RWCU or RWC	reactor water cleanup
RWCS	reactor water cleanup system
RWE	rod withdrawal error
RWM	rod worth minimizer
SAER	Safety Audit and Engineering Review
SAT	station auxiliary transformer
SBGT or SGTS or SGT	standby gas treatment
SCM	stress corrosion monitor
SDC	setpoint design change
SED	System Evaluation Document
SJAE	steam jet air ejector
SLMCPR	safety limit minimum critical power ratio
SNC	Southern Nuclear Operating Company
SoRA	Summary of Required Actions
SRB	Safety Review Board
SR	Surveillance Requirement
SRM	source range monitor
SRV	safety relief valve
SSAR	safe shutdown analysis report
SSC	system, structure, or component
TBWD	thrust bearing wear detector
TCV	turbine control valve
THV	torus hardened vent
TIL	Technical Information Letter
TIP	traversing incore probe
TLD	thermoluminescent dosimeter
TRM	Technical Requirements Manual
TS	Technical Specifications
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. Unit 1 is currently licensed to operate at 2763 MWt and Unit 2 is currently licensed to operate at 2763 MWt. The maximum dependable capacity for 2001 on Unit 1 was 863 net MWe. The maximum dependable capacity for 2001 on Unit 2 was 878 net MWe. General Electric 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 recirculating 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 Cooperative	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

Southern Nuclear Operating Company has sole responsibility for overall planning, design, construction, operation, maintenance, and decommissioning of the Edwin I. Hatch Nuclear Plant.



**10 CFR 50.59 SUMMARIES FOR 2001**

## UNIT 1/COMMON AS-BUILT NOTICES

**00-0268**

This change adds the training flow loop building to drawing E-10173, general site building plan drawing. This change does not modify the function of any system.

The training flow loop building is not safety related. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 1 DESIGN CHANGE REQUESTS

**93-047**

This change modifies the Condensate Demineralizer system Air Surge Backwash, and Body Feed equipment to improve performance of the system operation and reduce the amount of radioactive waste generated and processed as a byproduct of this system. This change modifies the operation of this system by replacing the condensate demineralizer system control panel with a new PLC based control panel. Also, the low pressure air blower backwash equipment is replaced with equipment which provides a high pressure air backwash technique for the condensate demineralizer vessels. The Demineralizer system holding pumps are replaced to support a change to larger Powdex vessel elements. A modification is made to the Body Feed system operation to reduce the potential of line blockade from hardening of the body feed slurry.

The Condensate Demineralizer system is not safety related. This modification has no adverse effect on the any safety-related system or component. This change to the Condensate Demineralizer system does not reduce the margin of safety as defined in the basis for any Technical Specification.

**95-038**

This change removes the the Unit 1 radwaste drumming system portion of the decommissioned radwaste system and architectural modifications to allow the addition of a "hot" toolroom facility for contaminated tool storage, issue, return and decontamination. This change does not modify the function of the operating radwaste system. This change modifies the non-seismic radwaste building structure by removal of temporary walls, cutting of new openings in permanent walls and stair modifications. Modifications to support systems do not affect any safety-related function or operation of the radwaste, instrument air, HVAC, demineralized water or decontamination systems.

The affected portion of the radwaste system and its support systems is not safety related. The only safety related function of the radwaste system is containment isolation. It does not challenge any system or component required for safe shutdown and does not challenge containment integrity. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**97-041**

This change replaces the meteorological data recorders to allow more accurate and cost-effective data gathering. This change does not modify the function of the Y33, meteorology system; it replaces obsolete equipment in the MCR that no longer has spare parts available and removes obsolete recorders in the EOF.

The Y33 meteorology system is not safety related. It does not challenge the any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 1 DESIGN CHANGE REQUESTS

**97-042**

This change modifies the hypochlorite/bromide, dispersant, inhibitor injection piping and an unused service water line at the intake structure to re-route existing piping and conduit for personnel safety and aesthetic reasons. This change does not modify the function or operation of these systems and utilizes materials of construction better suited for the corrosive chemical environment.

The chemical injection system and the affected portion of the service water system are not safety related. This modification does not challenge the chemical injection system or the service water system or any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-018**

This design change will relocate manual isolation valve 2P33-F581, change its position to normally open and add an oxygen analyzer sample panel (2P33-P006) automatic isolation Solenoid Valve (SV) 2P33-F605 to comply with Reg. Guide 1.97. The new SV will close on a Group 10 Primary Containment Isolation Signal (PCIS) due to its safety function of maintaining the ASME Section III Class 2 boundary between the safety-related Post Accident Hydrogen / Oxygen (H<sub>2</sub>/O<sub>2</sub>) Analyzer system and non-safety related Commercial Grade O<sub>2</sub> analyzer piping. An automatic isolation sample valve eliminates the need for an operator to be stationed at the valve when opened for taking O<sub>2</sub> samples during normal operation. This change modifies the safety function of the 2P33 sampling system by adding automatic isolation on a Group 10 PCIS via SV 2P33-F605.

The solenoid valve 2P33-F605 being added is a boundary valve between Safety-Related and Non Safety-Related piping. The downstream commercial grade oxygen analyzer panel 2P33-P006 is not safety-related. This change does not adversely affect the Post Accident Hydrogen / Oxygen (H<sub>2</sub>/O<sub>2</sub>) Analyzer system or its components. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-034**

This change adds a new 2 story office/work area (support building) south of the Unit 2 turbine building to provide permanent structures to adequately house site personnel. This addition does not modify the function or operation of any plant systems.

The support building is not safety related. It does not challenge or has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 1 DESIGN CHANGE REQUESTS

**98-039**

This change modifies the emergency diesel generator system to remove the "governor not at synchronous speed setting" annunciator. This change does not modify the operation of this system.

The "governor not at synchronous speed setting" annunciator is not safety related. It has no adverse affect on any emergency diesel generator safety-related systems or components. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-007**

This change modifies the Residual Heat Removal Service Water (RHRSW) pumps on both units to a "cutter pump" designed to eliminate potential performance concerns. This change does not modify the operation of this system since the pump performance characteristics are not affected by this change.

The RHRSW pumps are safety related. The RHRSW "cutter pump" configuration has no adverse affect on the RHRSW system. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-018**

This change relocates the Units 1 and 2 NRC-ERDS computer and related components to allow mounting of replacement SPDS components in control room panels 1X75-P604 and 2X75-P604. This change does not modify the function or operation of this system.

The NRC-ERDS computer is not safety-related. This change has no adverse affect on the 1/2X75 SPDS system or any safety-related system or component. It does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-033**

This change modifies the traveling water screens, 1W33-E001 A/B, to eliminate debris carry over. This change does not modify the function / operation of this system.

The traveling water screens, 1W33-E001A/B, are not safety related. They have no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-034**

This change adds a roller pad and seismic restraints for use with the HI-STAR 100 and HI-STORM 100 dry storage systems at Unit 1 reactor building 130'. This represents a change to the method of moving a HI-STAR 100 system inside the reactor building described in HNP-2 FSAR

**UNIT 1 DESIGN CHANGE REQUESTS**

Section 9.1.5 and incorporates a description for movement of the HI-STORM 100 system inside the reactor building and use of the roller pad during MPC transfer operations into HNP-2 FSAR Section 9.1.5.

The dry storage system is not safety related but is considered important to safety. The proposed change has been evaluated in accordance with the provisions of 10 CFR 50.59 and determined to not involve an unreviewed safety question or a require a change to the Technical Specifications. Therefore, this change can be implemented without prior NRC approval.

**01-004**

This change replaces the existing 150 MHz Radio System to allow better coverage of the plant. This change does not modify the function of this system.

The 150 MHz Radio System is not safety related. It does not challenge any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**01-006**

This change adds the use of the Holtec HI-STORM 100 dry storage cask system to allow additional methods of moving and storing spent fuel at the ISFSI. This change modifies the operation of this system by transferring spent fuel in the reactor building from one cask to another cask that will be moved to storage at the ISFSI. This new Holtec HI-STORM 100 system is less expensive than the Holtec HI-STAR 100 cask.

The Holtec HI-STORM 100 dry storage cask system is not safety related, but is classified as Important to Safety (ITS), Class A. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**01-007**

This change adds a one inch thick stainless steel plate to the floor of the Unit 1 dryer-separator pool to allow either a Hi-Star or Hi-Trac cask to be placed there when the pool is emptied of water for dry storage loading activities. This change does not modify the function of this system.

The Hi-Star or Hi-Trac cask and loading operation is not safety related. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 2 DESIGN CHANGE REQUESTS

**90-118**

This change replaces the 2T52-X105C penetration to eliminate gas leakage. This change does not modify the function of this system. The replacement electrical penetration is equivalently qualified replacement.

The penetration replacement is safety related. It does not challenge the integrity of the drywell nor any safety-related systems or components. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**92-134**

This change replaces the existing NEMA size 2 starters feeding the drywell return air fans 2T47-C001A & B to NEMA size 3 non-reversing starters to address equipment life/reliability of the drywell return air fans. Replacing the starters does not modify the function of this system but brings the fan motor operation within the established Hatch design criteria.

The drywell return air fans 2T47-C001A & B are not safety-related; however, the starters are located in the safety-related and EQ qualified MCCs 2R24-S011 & 2R24-S012. For this reason, the replacement starters will meet or exceed these safety-related and EQ qualified requirements. It has no adverse affect on the 2T47 system. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**95-041**

This change replaces the existing main turbine thrust bearing wear and vibration detection system with new equipment manufactured by Bently Nevada. The existing equipment is obsolete and provides a single failure mode to trip the turbine. The new equipment is state of the art and provides a two out of two logic for turbine trip. This change does not modify the function of this system.

The 2N31/2N32 System (turbine thrust bearing wear and vibration detection) is not safety related. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 2 DESIGN CHANGE REQUESTS

**96-050**

This change modifies the main turbine-generator power load unbalance (PLU) and backup overspeed trip (BOST) test logic and replaces hardware associated with the PLU and BOST circuitry to eliminate the possibility of the plant trip incidents resulting in reactor scrams or forced outages. This change does not modify the existing power load unbalance control or backup overspeed trip function of the 2N32 system; however, the normal operation mode will be LOCKED OUT from the test mode for both PLU and BOST to prevent the test-created PLU/BOST signal from transmitting to the plant control system (main turbine-generator) before the test circuit has reset.

The PLU and BOST test logic of the 2N32 system is not safety related. This change has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**97-053**

This change modifies the Unit 2 condenser waterbox vent system in the circulating water system (2N71) to eliminate air entrapments that accumulate during normal operation. This change does not modify the function or operation of the circulating water system. The existing manually operated 4" vent line may continue to function as designed when necessary. The proposed design modification will exhaust the accumulated air during operation.

The circulating water system (2N71) as well as the continuous venting system is not safety related. The continuous venting system does not compromise nor has any adverse affect on the 2N71 system. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-011**

This change adds interposing relays and modifies the green indicating light wiring for each 4kV breaker on the safety-related switchgear buses 2E, 2F and 2G to maintain minimum required control voltage and allow green indicating light to signify all necessary conditions for breaker closure are met. This change does not modify the function of the 4kV breakers of the safety-related switchgear buses 2E, 2F, and 2G.

The 4kV switchgear buses 2E, 2F, and 2G are safety related. This change has no adverse affect on the system. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-047**

This change replaces the MicroVersa RMS-9 trip units for selected breakers in 600 V switchgear busses 2R23-S001, 2R23-S002, 2R23-S011 and 2R23-S012 with MicroVersa Trip Plus trip units



## UNIT 2 DESIGN CHANGE REQUESTS

to eliminate spurious trips of breakers caused by electrical noise. This change does not modify the function of the impacted 600 V breakers.

The switchgear busses and the associated breakers are not safety-related. It has no adverse affect on the impacted 600 V breakers or any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-049**

This change modifies the 2N21 hotwell level control system to replace obsolete equipment. This change does not modify the function or operation of this system.

The hotwell level control system is not safety related. It has no adverse affect on the 2N21 system. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**98-063**

This change adds minute amounts of noble metal on all wetted reactor components to eliminate incore stress corrosion and adds limited conductivity indication to the chemistry data acquisition system. This change does not modify the operation of this system.

The reactor vessel internals are safety related. The noblechem application does not challenge any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**99-035**

This change adds a crosstie between the CRD pump discharge lines and a control valve in parallel to the CRD minimum flow orifices to allow elimination of excess CRD water and decrease system pressure to within original design limits and setpoints. This is in response to the removal of the CRD return to RWCU from normal service due to concerns with IGSCC of the thermal mixing tee. The function of this system is not changed by the addition of the min flow bypass line. This bypass will be self regulated based on CRD system pressure and will not alter the method of system operation. All modes of the CRD system will remain unchanged. The elimination of the excess water will improve system reliability and eliminate spurious high pressure alarms in the MCR. The affected portion of the CRD system is not safety-related.

The CRD minimum flow bypass line and valve is not safety related. It has no adverse affect on the rest of the CRD system. The bypass will reduce system pressure to within original design limits. The only safety related portion of the CRD is the SCRAM function and associated piping from the HCU's and SCRAM header. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

## UNIT 2 DESIGN CHANGE REQUESTS

**99-036**

This change replaces the action pack relays of the Unit 2 turbine building chiller with the Yokogawa controller/alarm units to eliminate the false signals originating from the journal bearing temperature sensors that cause the turbine building chilled water system to experience spurious trips. This change does not modify the function of this system (2P63) by replacing the existing equipment with functionally equivalent equipment.

The 2P63 system is not safety related. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**99-044**

This change replaces the temporary missile barriers for 6" plant service water line 2P41-6"HBC outside of the diesel generator building to a permanent missile barrier. This change does not modify the function of this system.

The plant service water system is safety-related. The new missile barrier has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-013**

This change adds lifting lugs and relocates interferences, which inhibit the removal of various 2B21-F013 safety relief valves top works and main valve bodies to allow safe removal and replacement of these components. This change does not modify the operation of this system.

The 2B21-F013 safety relief valves are safety related. The addition of lifting lugs and the relocation of interferences have no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**00-035**

This change modifies the railroad spur outside the airlock and adds asphalt to the existing roadway. This change does not modify the function of this system.

The railroad pad and roadway are not safety related. There are no adverse affects on any safety-related system or component due to loads passing over them.

**REQUESTS FOR ENGINEERING ASSISTANCE****REA HT-98617**

This change revises the FHA in three specific areas: 1. delete several isolated references to Thermo-Lag (TSI) as a fire barrier material, 2. modify Section 9.9, Appendix I to relocate the detailed fire hazard analysis of deviated penetration seals into a calculation, and 3. to revise the reference to the FHA drawings listed in Section 3.2 of the FHA. The document revision included in this scope does not modify the function or operation of the electrical cables or the passive fire protection features.

The TSI as a fire barrier material is not safety related nor are the penetration seals contained in Section 9.9 of the FHA considered safety related. Neither the removal of TSI nor the relocation of the analysis for the deviated pen seals has any adverse affect on the electrical cables or fire rated barriers. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**REA HT-99614**

This change modifies drawing H-10167 to clarify lift heights when using any hoist besides the Unit 1 Reator Building Crane main hoist. This change does not modify the function|operation of this system.

Drawing H-10167 is not safety related. It has no adverse affect on any safety-related system or component. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**REA HT-99643A**

This change modifies drawing H-10167 to reflect the use of Unit 1 reactor building crane to move a spent fuel cask that weighs 125 tons instead of a 90 tons. The drawing is modified to show the placement of the spent fuel cask in Unit 1 or 2 cask washdown area and the load path to each. In addition, crane usage is clarified by adding load paths, heavy loads and lift heights when using the non single-failure-proof hoists. Along with the above drawing changes, evaluations have been made of all structural considerations to support these changes. This change does not modify the function or operation of the reactor building overhead crane or the elevation 228' refueling floor.

The reactor building crane is not safety related but the reactor building 228' floor is safety related. The text changes to the drawing and the subsequent analysis of these changes do not challenge and have no adverse affect on the 228' floor or the overhead crane. Theses changes do not reduce the margin of safety as defined in the basis for any Technical Specification.

**REA HT-00662**

This change (SDC 00-6003) modifies the jacket coolant low-pressure setting for diesel generator 1B to reduce the potential of spurious alarms and trips caused by fluctuations in coolant pressure.

**REQUESTS FOR ENGINEERING ASSISTANCE**

This change does not modify the function of the jacket coolant system and the setpoint remains within guidance established by the manufacturer.

The jacket coolant low-pressure setpoint is not safety related and only trips the diesel when it is in the test mode of operation. This modification has no adverse affect on the diesel generator system or other safety related equipment. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**LICENSING DOCUMENTS CHANGE REQUESTS****LDCR 2000-034, Rev. 0**

This LDCR is to revise the FHA to incorporate clarifications and changes necessary to resolve discrepancies identified during the ETS broadness review. The changes discussed will revise the FHA paragraphs 4.3, 4.4, 4.7, 4.8, 4.9, 4.11, and 4.13. Fire Protection Equipment is not contained or described in the TS. The Fire Protection equipment malfunction or failure will not reduce the margin of safety as defined in the basis for any TS.

**LDCRs 2000-036 and 2000-113, Rev. 0**

These LDCRs revise the Unit 1 and 2 FSARs and TRMs to change the heavy load limit consistent with the guidelines contained in NUREG-0612 and the assumptions contained in GESTAR II for the fuel handling accident. The change does not have any adverse impact on the performance of any fission product barriers or the NRC acceptance limits associated with the fission product barrier parameters. The fuel handling accident evaluation in GESTAR II and its baseline reference contained in the FSAR continue to remain bounding relative to the proposed heavy load limit. Therefore, it can be concluded that the margin of safety as defined in the basis for any TS is not reduced.

**LDCR 2000-077, Rev. 0**

This change corrects Section 4.7 of the FHA fire protection water description to delete the reference to demineralized water. The fire protection water supply is deep well water, filtered through the sand filters and routed directly into the fire protection water storage tanks. The change does not require plant modifications, and therefore, does not reduce the margin of safety as defined in the basis for any TS.

**LDCR 2000-132, Rev. 0**

This LDCR is for a revision to the FHA SoRA in response to DCR 98-044 (summary reported in the 2000 AOR) and revisions to existing manual actions based on discussions with site operations personnel. There are no physical plant modifications resulting from this change. The changes revise/clarify pre-existing manual actions listed in the Safe Shutdown Fire Procedure. These changes insure that equipment required for a postulated Appendix R event will operate as intended. These changes do not affect the margin of safety as defined in the basis for any TS.

**LDCR 2001-001, Rev. 0**

This LDCR revises the Unit 1 and 2 FSAR subsections describing when the offgas mechanical vacuum pump is operated. The changes are proposed because the FSAR descriptions do not reflect accurately the operation of the mechanical vacuum pumps. Neither the mechanical vacuum pumps nor their trip and isolation logic are a subject of any Unit 1 or 2 TS. The main steam line high radiation trip signal and the vacuum pump trip logic appear in only the TRM. The changes can not reduce the margin of safety as defined in the basis for any TS.

**LICENSING DOCUMENTS CHANGE REQUESTS****LDCR 2001-003, Rev. 0**

This LDCR revises FHA Section 9.5 Appendix E to incorporate SSAR changes to the Unit 1 and Unit 2 Summary of Required Actions Lists, as evaluated in RES ST-91004 and RES ST-99004. There are no physical changes to the plant resulting from this change. The changes add new manual actions to the Safe Shutdown Procedure. These changes have no impact on the normal operation of plant equipment. The changes insure that equipment required for a postulated Appendix R event will operate as intended. These changes do not affect the margin of safety as defined in the basis for any TS.

**LDCR 2001-004, Rev. 0**

This LDCR revises the FSAR to make it consistent with the plant design and condition. Intake structure suction bay penetration seals are described in the FSAR to be sealed with a welded plate to prevent leakage into the PSW strainer area in the event of a flood. The actual plant design and condition does not include the welded plate. The penetrations are sealed with silicone RTV. None of the analyzed accidents will be affected by installing a silicone RTV based seal in lieu of the welded seal presently mentioned in the FSAR.

The operability, availability, and performance of the RHRSW pumps are not impacted by the silicone RTV seal. Any margin of safety associated with the RHRSW pumps remain as it was prior to this revision in the FSAR and the installation of the elastomer seal.

**LDCR 2001-006, Rev. 0**

This LDCR proposes the following changes:

1. Removal of the HI-STAR 100 spent-fuel cask lift trunnion end caps;
2. Removal of the spent-fuel cask lift yoke air actuators from the description contained in the HNP-2 FSAR Section 9.1.5.1.3; and
3. Administrative FSAR changes necessary to incorporate use of the HI-STORM cask system in the HNP ISFSI.

The proposed activities are limited to activities associated with spent-cask handling inside the HNP reactor building. All heavy loads will continue to be handled in accordance with HNP's commitments to NUREG-0612. These commitments include design and testing of the spent-fuel cask lift yoke and cask lift trunnions in accordance with the requirements of ANSI N14.6, and use of the HNP-1 single failure proof crane on approved heavy load paths to handle loads in excess of 725 pounds. The proposed activities do not impact the operability requirements of equipment required by the HNP-1 and 2 Technical Specifications. Therefore, the proposed activities do not reduce the margin of safety as defined in the basis for any Technical Specification.

**LICENSING DOCUMENTS CHANGE REQUESTS****LDCR 2001-010, Rev. 0**

This LDCR applies to changes to the Unit 1 and 2 TRMs. Wording that requires snubber functional testing to be performed only during shutdown is proposed to be eliminated. A new requirement is also added to limit snubber removal or testing to those systems that have been evaluated to remain operable under the specified conditions. These changes are administrative in nature and do not affect adversely any snubber or the system to which it is attached. The changes will not decrease the effectiveness of snubber testing or lower operability standards since they do not alter the snubber test method, acceptance criteria, scope expansion, or frequency. The proposed changes are confined to the TRMs and will not reduce the margin of safety as defined in the basis for any TS.

**LDCR 2001-012, Rev. 0**

This LDCR is for an administrative change to the security plan (Safeguards) and the 50.59 for this change was approved on 2/20/2001.

**LDCR 2001-017, Rev. 0**

This LDCR is to revise the FSAR to include the Vice President and Chief Financial Officer, Comptroller, and Treasurer as a direct report to the President/CEO. Since there will be no change in the physical design or operation of the plant, there will be no change to the margins of safety as defined in the basis for any TS.

**LDCR 2001-022, Rev. 0**

This LDCR is to revise the FHA to eliminate the use of "ECODEX" as the specific product in favor of "resins" as reference to the resins to account for the use of a wide variety of resins. The combustible value table will also be revised to increase the value for resins. The slight increase in the BTU value (less than 10%), will not alter the fire severity and will account for all resins in use at Plant Hatch. All combustible loading values remain bounded under the acceptance criteria defined in the FHA. The FHA change does not affect Fire Protection equipment operation and as such will not reduce the margin of safety as defined in the basis for any TS.

**LDCR 2001-031, Rev. 0**

This LDCR is to revise Unit 2 FSAR Section 9.4.2.2.2 to revise the temperature reference in the refueling floor area during normal operation from 90°F to 104°F, and to delete the reference to chilled water fan coil units in the area since the area is only ventilated with outside air. The refueling floor HVAC system is not credited in the TS for maintaining temperature in the area. The proposed change does not modify this system or any equipment in the system and how it is operated. Thus, the change does not reduce the margin of safety as defined in the basis for any TS.

**LICENSING DOCUMENTS CHANGE REQUESTS****LDCR 2001-032, Rev. 0**

This LDCR is to revise the FSAR per the guidance of NRC RIS 2000-18 on managing quality assurance (QA) records in electronic media. This change provides guidance which is consistent with the technical aspects of NIRMA TG 11-1998 and TG 15-1998 applicable to Plant Hatch for storing and maintaining licensee records media. Plant Hatch commitments to RG 1.88 and 1.28 are not superceded, revised, or abrogated by this change. Since there are no changes to the physical design or operation of the plant, there will be no reduction in the margin of safety as defined in the basis for any TS.

**LDCR 2001-034, Rev. 0**

This LDCR is to revise Unit 2 FSAR section 7.6.8.3.7.3 in accordance with the Computer Software change S473464 evaluated and reported in the 1998 Annual Operating Report.

**LDCR 2001-075, Rev. 0**

This LDCR is to remove licensing requirements for the Unit 2 Loose-Parts Monitoring (LPM) System, 2L52. The Hatch LPM System is bounded by the evaluation of BWROG Topical Report NEDC-32975(A) as approved in the NRC SER dated January 25, 2001, and can to be permanently de-energized. The LPM system is not credited in the mitigation of any accident or transient previously evaluated in the Updated FSAR. The LPM system is a monitoring system only and removing it from service will have no affect on a malfunction of an SSC. Powering off the LPM System will have no impact on the fuel cladding or the reactor pressure boundary. Furthermore, there are other indications available to the operator to identify a loose part in the coolant pressure boundary, such as jet pump flows and core plate dP instrumentation. No credit is taken in the design bases or safety analyses for the LPM system.



**MINOR DESIGN CHANGES****MDC 98-5005, Rev. 0**

This MDC installs Yokogawa digital recorders in locations that had only analog recorders. The replacement recorders are for monitoring purposes only on nonsafety-related components. The recorders are in compliance with EPRI Guideline TR-102323 as it relates to Electro Magnetic Interference (EMI), and no other equipment is adversely impacted. No acceptance limits are increased and no failure points or plant parameters are varied such that there will be any reduction in the margin of safety.

**MDC 99-5004, Rev. N/A**

This change replaces the Barton RHR Service Water System A and B flow transmitters with Rosemount transmitters and adds 4-20 ma to 10-50 ma converters to provide greater reliability and accuracy. This change does not modify the operation of the RHR Service Water System by replacing these transmitters and adding the converters.

The RHR Service Water System and the equipment being added and replaced are safety-related. The changes of this MDC have no adverse affect on the RHR Service Water System. This change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**MDC 01-5002, Rev. N/A**

This MDC removes heating coils 2U41-B020A, C, and D. These coils are located on the Unit 2 turbine deck and were originally installed to prevent freezing conditions in the plant. This MDC removes plant heaters that are not used, and have already been evaluated as not necessary in the FSAR. The plant heaters perform no safety function.

**TEMPORARY MODIFICATIONS****TM 1-01-03, Rev. 0**

This TM provides temporary cooling to the SOS air conditioner while the PSW supply and return piping is being replaced. Temporary supply and return hoses are run from the LPCI Inverter room to the SOS air conditioner on the MCR annex roof. Once the hoses are connected the TM will be activated with a clearance to open the supply and return valves. The proposed activity does not affect the FSAR identified margins such as peak clad temperature, offsite doses, or any other TS margin of safety.

**TM 2-01-001, Rev. N/A**

This TM is to lift the three wires from the Recirculation Pump A inlet sensor (accelerometer), to clear a nuisance alarm that distracts the operator from monitoring valid plant alarms and masks other LPM alarms that may be received. The LPM system is intended for informational purposes only. It is not used to provide any margin of safety as defined in the TS for Unit 1 or 2, therefore the temporary removal of this one channel of the LPM system will not reduce the margin of safety as defined in the basis for any TS.

**TM 2-01-002, Rev. N/A**

This TM is to lift the three wires from the 2L52-N002A Recirculation Pump A inlet sensor (accelerometer), to clear a nuisance alarm that distracts the operator from monitoring valid plant alarms and masks other LPM alarms that may be received. The LPM system is intended for informational purposes only. It is not used to provide any margin of safety as defined in the TS for Unit 1 or 2, therefore the temporary removal of this one channel of the LPM system will not reduce the margin of safety as defined in the basis for any TS.

**TM 2-01-007, Rev. 0**

This TM supplied temporary cooling to Unit 2 Condensate Pumps while repairs are made to the installed cooling water line. Any margin of safety potentially impacted by the implementation of this temporary modification will be limited to effects on the feedwater system. Since the loss of feedwater event is already addressed in the FSAR, the potential adverse effects of this modification are bounded by the existing analysis.

**TM 2-01-015, Rev. N/A**

This TM is to install a temporary test box (jumper and two position switch) to allow simulating a control rod withdrawal during the rod interlock and other refueling interlock surveillances. Since the test box will not be in place during power operation, and since removal of the box and the restoration are being controlled and documented per approved administrative control procedures, installation of the test box will not increase the likelihood of failure in the RPIS or RMCS systems. Therefore, the proposed change will not result in a decreased effectiveness of the surveillances.

**TEMPORARY MODIFICATIONS****TM 2-01-024, Rev. N/A**

This TM is to remove a number of indicating lights from panel 2H11-P628. Per GE Instruction Manual GEK-45889, the design function of the clear (neon) indicating lights in the ADS solenoid control circuits is to support testing of the relay logic for the cross-connected relay contacts. It is acceptable to operate with the bulbs removed because the bulbs are used during testing only, and the Operators do not expect these indicating bulbs to provide any online information. The ADS logic will perform its safety function regardless of the indicating bulbs being on, off, or removed.

## PLANT PROCEDURES

**34SV-F15-001-2S, Rev. 12**

This procedure revision is to allow simulating a control rod withdrawal during the rod interlock and other refueling interlock surveillances. Simulating rod withdrawal in checking the refueling interlocks will not increase the likelihood of failure of the interlocks because the required logic channels will continue to be properly tested. Also, simulating the attempted withdrawal of the second control rod in the one-rod out interlock test is done by electrically disarming the control rods. Thus, the rod block logic will continue to be tested, just the control rod itself will be prevented from moving. Therefore, the proposed changes to the surveillances will not result in a decreased effectiveness of the surveillances.

**42SP-082100-OR-1-2S, Rev. 1**

This revision is to allow performance on either loop of RHR/CS and to turn off, rather than rack out, circuit breakers for major valves in the system. The performance of this procedure cannot have any impact on any margin of safety associated with the LPCI system. Primary containment integrity will be assured per the procedural prerequisites in that the LPCI injection valve for the affected loop will be closed and deactivated prior to carrying out any action which will affect the integrity of the outboard primary containment isolation boundary.

**42SP-102501-OR-1-0S, Rev. 1**

This special purpose procedure provides instructions for using installed test switches to exercise certain HGA relays in the diesel load sequencing logic. The design function in view in the case of these test switches is the loading of low pressure ECCS pumps onto an emergency 4160-volt bus. This logic will be altered slightly during the course of this procedure and will be restored upon completion. In the worst case scenario, a pump start could be attempted out of sequence, overloading an emergency bus, resulting in a trip of the bus. A similar scenario has already been addressed by the SAFER/GESTR-LOCA analysis. The purpose of the procedure is to exercise and inspect certain relays, and this function will be accomplished by proper manipulation of installed equipment by licensed personnel.

**52GM-F15-001-0S, Rev. 1**

This revision is to allow disabling the refueling platform interlock switches during other than refueling outage periods. This revision does not reduce margin of safety described in the TS. The reactor shield plugs are in place, no loads will be attached to the main hoist of the refueling platform and no core alterations can be performed. The Interlock switches will be placed in their designed configuration upon completion of maintenance. Also, the actuation of the switches is proved operable during PM of applicable unit refueling bridge and operations check per applicable procedure.

**PLANT PROCEDURES****52GM-MNT-022-1S, Rev. 0**

This procedure is to provide an acceptable temporary power source for Emergency Diesel Generator 1B Battery Charger while PM on its normal power source is being performed. The requirements of TS 3.8.4 requiring an operable battery system will be met. The procedure will only be performed during the scheduled maintenance work on DG 1B, which will be out of service. All other EDGs, their associated Busses and associated required loads will be in service and operable, so the DG 1B Battery system will not be required if either or both Units are in Modes 4, 5, or all fuel is removed from the vessel. Therefore, TS 3.8.5 would not apply.

**HSRB-01, Rev. 11; HSRB-02, Rev. 8; HSRB-03, Rev. 10; HSRB-07, Rev. 7; HSAER-01, Rev. 8; HSAER-02, Rev. 9; HSAER-03, Rev. 8; HSAER-06, Rev. 9; HSAER-07, Rev. 11; HSAER-08, Rev. 6; HSAER-13, Rev. 11; HSAER-WP-10, Rev. 8; HNGS-WP-2, Rev. 3; and Hatch QAM Rev. 51**

These changes are administrative in nature such as consolidating the various QA staffs at SNC under one SAER Manager, clarifying wording, updating the references, deleting the reference to an SCS and BPC surveillance program which is addressed by SNC Corporate SAER (formerly Corporate Quality Services), updating personnel and procedure titles, updating organizational charts, and other minor administrative changes. The commitments remain as before the change.

**DATA TABULATIONS AND UNIQUE REPORTING REQUIREMENTS**

**OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 2001**

## OCCUPATIONAL PERSONNEL RADIATION EXPOSURE FOR 2001

This information has been compiled to satisfy the requirements of Plant Hatch Units 1&2 Technical Specifications Section 5.6.1 and to assure compliance with the Code of Federal Regulations as set forth in applicable sections of Title 10. Special attention was afforded to the methods prescribed by the Commission in Regulatory Guide 1.16 in order to provide meaningful information as to the degree and circumstances of 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, 2001 through December 31, 2001. Individual exposures as indicated by electronic dosimeters (ED) were recorded daily with the use of an ALARA Computer System. These exposures were tabulated on a daily basis. The corresponding ED results as recorded in the electronic dosimetry files were supplanted by thermoluminescent dosimetry results as the data became available from the processing vendor. It should be noted, however, that radiation exposure results presented in this report are based on EDs (e.g., estimated readings).

Each person listed in the electronic dosimetry files was assigned a "usual" job category based 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 to the total representing the cumulative dose in the appropriate job category.

The 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 of 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 file contains the personnel category information required to accomplish this completion. The individual dose totals for each job were used by the ALARA Computer to calculate the number of man-rem indicated in each group. Backup electronic files were maintained for redundancy in the case of destruction or temporary inaccessibility suffered by the files.

By using the ALARA Computer System, dosimetry information has been compiled, retained and tabulated in such a manner as to satisfy applicable regulations and plant Technical Specifications. The system has been organized to provide the information in the format specified by these requirements and the Regulatory Guides.

REGULATORY GUIDE 1.16 INFORMATION  
 END OF YEAR REPORT - 2001 (Sheet 1 of 2)

Work and Job Function	Number of personnel > 100 mrem			Total man-rem *		
	Station	Utility	Contractor	Station	Utility	Contractor
<b>ROUTINE PLANT MAINTENANCE</b>						
MAINTENANCE AND CONSTRUCTION	79	0	79	22.187	0.232	35.292
OPERATIONS	5	0	0	2.695	0.003	0.000
HEALTH PHYSICS	12	0	3	4.809	0.004	1.053
SUPERVISORY	2	0	1	1.465	0.034	0.443
ENGINEERING	4	0	0	2.078	0.236	0.762
<b>ROUTINE OPERATIONS AND SURVEILLANCE</b>						
MAINTENANCE AND CONSTRUCTION	8	0	1	1.880	0.014	0.562
OPERATIONS	61	0	0	17.920	0.000	0.000
HEALTH PHYSICS	50	0	24	11.432	0.081	6.652
SUPERVISORY	1	0	0	0.588	0.005	0.087
ENGINEERING	0	0	0	0.081	0.033	0.087
<b>INSERVICE INSPECTION</b>						
MAINTENANCE AND CONSTRUCTION	0	0	1	0.131	0.042	0.343
OPERATIONS	0	0	0	0.049	0.000	0.000
HEALTH PHYSICS	0	0	0	0.321	0.000	0.112
SUPERVISORY	0	0	0	0.046	0.000	0.003
ENGINEERING	0	0	2	0.071	0.059	0.251
<b>SPECIAL PLANT MAINTENANCE</b>						
MAINTENANCE AND CONSTRUCTION	63	1	261	15.324	0.421	75.569
OPERATIONS	11	0	0	2.565	0.000	0.000
HEALTH PHYSICS	1	0	16	0.932	0.008	3.633
SUPERVISORY	1	0	0	0.590	0.005	0.396
ENGINEERING	2	2	7	1.246	0.715	1.936



**REGULATORY GUIDE 1.16 INFORMATION  
END OF YEAR REPORT - 2001 (Sheet 2 of 2)**

Work and Job Function	Number of personnel > 100 mrem			Total man-rem *		
	Station	Utility	Contractor	Station	Utility	Contractor
<b>WASTE PROCESSING</b>						
MAINTENANCE AND CONSTRUCTION	0	0	0	0.263	0.000	0.114
OPERATIONS	0	0	0	0.003	0.000	0.000
HEALTH PHYSICS	3	0	3	0.797	0.000	1.067
SUPERVISORY	0	0	0	0.009	0.000	0.000
ENGINEERING	0	0	0	0.002	0.000	0.000
<b>REFUELING OPERATION</b>						
MAINTENANCE AND CONSTRUCTION	4	0	52	2.365	0.000	14.769
OPERATIONS	0	0	0	0.743	0.000	0.000
HEALTH PHYSICS	3	0	2	0.692	0.067	0.730
SUPERVISORY	0	0	0	0.292	0.020	0.048
ENGINEERING	1	0	3	0.278	0.012	0.535
<hr/>						
<b>TOTALS</b>						
MAINTENANCE AND CONSTRUCTION	154	1	394	42.150	0.709	126.649
OPERATIONS	77	0	0	23.975	0.003	0.000
HEALTH PHYSICS	69	0	48	18.983	0.160	13.247
SUPERVISORY	4	0	1	2.990	0.064	0.977
ENGINEERING	<u>7</u>	<u>2</u>	<u>12</u>	<u>3.756</u>	<u>1.055</u>	<u>3.571</u>
	311	3	455	91.854	1.991	144.444

**GRAND TOTAL = 238.289 MAN-REM**

\*The total radiation exposure of the above personnel constitutes 100% of the site's exposure for the year.