TENNESSEE VALLEY AUTHORITY
NUCLEAR GENERATION

SEQUOYAH NUCLEAR PLANT

UNITS 1 AND 2

10 CFR 50.59 REPORT
TO THE
NUCLEAR REGULATORY COMMISSION

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The following criteria establish the bases for the items contained in this report.

I. Facility Changes

A. Modifications

During 1994, Sequoyah continued the process of reviewing ECNs/DCNs to verify field-complete status in the plant and make appropriate revisions to the SAR. A cross-check of these ECNs/DCNs and previous annual operating reports revealed that some of these ECNs/DCNs had been reported in the past. Only the ECNs/DCNs not previously reported are included in this report.

B. Temporary Alterations

Temporary alterations to the facility that required a safety evaluation are reported if they were written and approved in 1994. A temporary alteration is documented on a TACF.

II. Procedures

Procedures that were revised have been included in this report based on Site Standard Practice SSP 12.13, "10 CFR 50.59 Evaluation of Changes, Tests, and Experiments." If the safety assessment on a procedure indicated the need for a safety evaluation, the procedure change is reported.

The following is a list of abbreviations and acronyms common to this report.

Abbreviations/Acronyms	Definition
AARP	Alternate Analysis Review Program
ABGTS	Auxiliary Building Gas Treatment System
ABSCE	Auxiliary Building Secondary Containment Enclosure
ac	Alternating Current
ACA	Auxiliary Control Air
AERCW	Auxiliary Essential Raw Cooling Water
AFFF	Aqueous Film-Forming Foam
AFW	Auxiliary Feedwater
AFWPT	Auxiliary Feedwater Pump Turbine
AHU	Air-Handling Unit
AI	Administrative Instruction
AMSAC	ATWS Mitigating System Actuation Circuitry
ANS	American National Standards
ANSI	American National Standards Institute
AOI	Abnormal Operating Instruction
ARPI	Analog Rod Position Indication
ASCO	Automatic Switch Company
ASME	American Society Of Mechanical Engineers
ASOS	Assistant Shift Operations Supervisor
ASTM	American Society For Testing And Materials
ATC	Automatic Time Control
ATWS	Anticipated Transient Without a Scram
AUO	Assistant Unit Operator
AUX	Auxiliary
AWG	American Wire Gauge
AZ	Azimuth
A/C	Air-Conditioning
BAE	Boric Acid Evaporator
BAT	Boric Acid Tank
BATP	Boric Acid Transfer Pump
BISI	Bypassed and Inoperable Status Indication
BIT	Boron Injection Tank
BLW	Bearing Lube Water
CAM	Continuous Air Monitor
CAQR	Condition Adverse To Quality Report
CATS	Commitment Action Tracking System
CBACS	Control Building Air Cleanup System
CCP	Centrifugal Charging Pump
CCPIT	Centrifugal Charging Pump Injection Tank
CCS	Component Cooling System
CCW	Component Cooling Water
CDWE	Condensate Demineralizer Waste Evaporator
CE	Combustion Engineering
CEB	Civil Engineering Branch
cfm	Cubic Feet Per Minute
CFR	Code Of Federal Regulations
CGCS	Combustible Gas Control System
CILRT	Containment Integrated Leak Rate Test
CIS	Containment Isolation System
CIV	Containment Isolation Valve
CLA	Cold Leg Accumulator
COLR	Core Operating Limits Reports
COPS	Cold Overpressure Protection System
CP	Crankcase Pressure
CPAES	Containment Purge Air Exhaust System

Abbreviations/Acronyms	Definition
cpm	Counts Per Minute
CRD	Control Rod Drive
CRDM	Control Room Drive Mechanism
CREVS	Control Room Emergency Ventilation System
CRI	Control Room Isolation
CRVI	Control Room Ventilation Isolation
CS	Containment Spray
CSP	Containment Spray Pump
CSS	Containment Spray System
CSSC	Critical Systems, Structures, and Components
CSST	Common Station Service Transformer
CST	Condensate Storage Tank
CT	Current Transformer
CV	Check Valve
CVC(S)	Chemical Volume Control (System)
CVE	Condenser Vacuum Exhaust
CVI	Containment Vent Isolation
CTT	Cooling Tower Transformer
DAW	Dry Active Waste
DBA	Design Baseline Accident
DBE	Design Baseline Event
DBVP	Design Baseline Verification Program
dc	Direct Current
DCA	Design Change Authorization
DCN	Design Change Notice
DCR	Design Change Request
DD	Drawing Deviation
DEC	Digital Equipment Corporation
DPM	Division Procedure Manuals
DPT	Differential Pressure Transmitter
DWCD	Demineralized Water and Cask Decontamination
DWST	Demineralized Water Storage Tank
D/G, DG	Diesel Generator
EBLW	Emergency Bearing Lube Water
EBR	Electrical Board Room
ECCS	Emergency Core Cooling System
ECN	Engineering Change Notice
EGTS	Emergency Gas Treatment System
EHC	Electrohydraulic Controller
el	Elevation
EMI	Electromagnetic Interference
EMSL	Electrical Maintenance Section Letter
ENS	Emergency Notification System
EOI	Emergency Operating Instruction
EOP	Emergency Operating Procedure
EQ	Environmental Qualification
EQIS	Equipment Information System
ERCW	Essential Raw Cooling Water
ESF	Engineered Safety Feature
FCR	Field Change Request
FCV	Flow Control Valve
FDCT	Floor Drain Collector Tank
FE	Flow Element
FHAEF	Fuel Handling Area Exhaust Fans
FHI	Fuel Handling Instruction
FHSS	Fuel Handling and Storage System
FP	Fire Protection

Abbreviations/Acronyms	Definition
FQE	Field Quality Engineering
FRG	Function Restoration Guidelines
FS	Flow Switch
FSV	Flow Solenoid Valves
FT	Flow Transmitter
ft-lb	Foot-Pound
FVB	Fifth Vital Battery
GBCS	Generator Bus Cooling System
GCS	General Construction Specification
GDC	General Design Criteria
GOI	General Operating Instruction
gph	Gallons Per Hour
gpm	Gallons Per Minute
GSC	Gland Steam Condenser
HCI	Hazard Control Instruction
HDP	Heater Drain Pump
HELB	High-Energy Line Break
HEPA	High-Efficiency Particulate Air
HERCW	Hanger - ERCW
HJWT	High-Jacket Water Temperature
hp	Horsepower
HPFP	High-Pressure Fire Protection
HUT	Holdup Tank
HVAC	Heating, Ventilation, And Air-Conditioning
I&C	Instrument & Control
ICF	Instruction Change Form
IMI	Instrument Maintenance Instruction
I/P	Current to Pneumatic
JB	Junction Box
kV	Kilovolt
kW	Kilowatt
LC	Limit Control
LCC	Lower Compartment Cooler
LCO	Limiting Condition Of Operation
LCV	Level Control Valve
LED	Light-Emitting Diode
LEFM	Leading Edge Flow Meter
LER	Licensee Event Report
LLRW	Low-Level Radwaste
LOCA	Loss of Coolant Accident
LOOP	Loss of Offsite Power
LOP	Lube Oil Pressure
LP	Low Pressure
LT	Level Transmitter
mA	Milliampere
MBCW	Motor Bearing Cooling Water
MCC	Motor-Control Center
MCR	Main Control Room
MCRHS	Main Control Room Habitability System
MCRHZ	Main Control Room Habitability Zone
MDAFWP	Motor-Driven Auxiliary Feedwater Pump
MEB	Mechanical Engineering Branch
MELB	Moderate-Energy Line Break
MFIV(s)	Main Feedwater Isolation Valve(s)
MFLB	Main Feedwater Line Break
MFPTC	Main Feedwater Pump Turbine Condenser
MFW	Main Feedwater

Abbreviations/Acronyms	Definition
MIC	Microbiologically-Induced Corrosion
MOP	Main Oil Pump
MOV	Motor-Operated Valve
MPC	Maximum Permissible Concentration
MR	Man-Rem/Maintenance Request
MS	Main Steam
MSDDT	Main Steam Dump Drain Tank
MSIV	Main Steam Isolation Valve
MSLB	Main Steam Line Break
MSR	Moisture Separator Reheater
MSV	Main Steam Valve
MSVV	Main Steam Valve Vault
MTR	Minimum Training Radius
mV	Millivolts
MVAR	Millivolt Amperes Reactive
MWTP	Makeup Water Treatment Plant
M&AI	Modifications and Additions Instruction
M&TE	Measuring and Test Equipment
NBS	National Bureau of Standards
NCR	Nonconformance Report
NDE	Nondestructive Examination
NE	Nuclear Engineering
NEB	Nuclear Engineering Branch
NFPA	National Fire Protection Association
NPDES	National Pollution Discharge Elimination System
NIS	Nuclear Instrumentation System
NPG	Nuclear Power Group
NPSH	Net Positive Suction Head
NQAM	Nuclear Quality Assurance Manual
NRC	Nuclear Regulatory Commission
NSSS	Nuclear Steam Supply System
NUREG	Nuclear Regulation
OBE	Operating Basis Earthquake
OPS	Office and Power Stores
OE-MEB	Office of Engineering-Mechanical Engineering Branch
OH&S	Occupational Health and Safety
O.D.	Outer Diameter
PAES	Purge Air Exhaust System
PAM	Postaccident Monitoring
PAS	Postaccident Sampling
PASF	Postaccident Sampling Facilities
PASS	Postaccident Sampling System
PCB	Power Circuit Breaker
PCF	Procedure Change Form
PCV	Pressure Control Valve
PD	Positive Displacement
PER	Problem Event Report
PI	Pressure Indicators
PI	Periodic Instructions
PM	Preventive Maintenance
PMP	Preventive Maintenance Program
PMT	Post Maintenance Test
PORC	Plant Operations Review Committee
PORV	Power-Operated Relief Valve
ppm	Parts Per Million
PRO	Potential Reportable Occurrence
PRT	Pressure-Relief Tank

Abbreviations/Acronyms	Definition
PRV	Pressure-Relief Valve
PS	Pressure Switch
psi	Pounds Per Square Inch
psia	Pounds Per Square Inch Absolute
psid	Pounds Per Square Inch Differential
psig	Pounds Per Square Inch Gauge
PSO	Power System Operations
PT	Pressure Transmitter/Preoperational Test
QA	Quality Assurance
QC	Quality Control
QE&C	Quality Engineering and Control
QIR	Quality Information Release/Request
QMDS	Qualification Maintenance Data Sheet
R	Revision
RCDT	Reactor Coolant Drain Tank
RCH	Reactor Coolant Hanger
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RCW	Raw Cooling Water
REX	Radiation Exposure System
RF(I)	Radio Frequency(Interference)
RH	Relative Humidity
RHR(P)	Residual Heat Removal (Pump)
RHV	Reactor Head Vent
RIMS	Retrievable Information Management System
RFO	Refueling Outage
RM	Radiation Monitor
RPI	Rod-Position Indicator/Indication
rpm	Revolutions Per Minute
RPS	Reactor Protection System
RSW	Raw Service Water
RSWC	Raw Service Water Cooling
RTD	Resistive Thermal Detector
RTV	Room-Treated Vulcanization
RWST	Refueling Water Storage Tank
RX	Reactor
R.G.	Regulatory Guide
SAR	Safety Analysis Report
SBO	Station Blackout
SCAR	Significant Condition Adverse to Quality
SCF	Standard Cubit Feet
SCFH	Standard Cubit Feet Per Hour
SCFM	Standard Cubit Feet Per Minute
SCR	Significant Condition Report
SCSA	Station Control and Service Air
SCV	Steel Containment Vessel
SDM	Shutdown Margin
SE	Shift Engineer
SECL	Safety Evaluation Check List
SER	Safety Evaluation Report
SFPC	Spent Fuel Pool Cooling
SGBD	Steam Generator Blowdown
SGTR	Steam Generator Tube Rupture
SI	Surveillance Instruction
SI(S)	Safety Injection (System)
SMI	Special Maintenance Instruction
SMS	Status Monitoring System
SNM	Special Nuclear Material

Abbreviations/Acronyms	Definition
SOI	Standard Operating Instruction
SOR	Static "O" Ring
SOS	Shift Operations Supervisor
SP	Standard Pressure
SPDS	Safety Parameter Display System
SPTS	Sequoyah Procedures Tracking System
SQA	Sequoyah Administrative Instruction
SQN	Sequoyah Nuclear Plant
SR	Surveillance Requirement
SRO	Senior Reactor Operator
SRST	Spent Resin Storage Tank
SS	Stainless Steel
SSD	Seismic Self-Drilling
SSE	Safe Shutdown Earthquake
SSP	Site Standard Practice
SSPS	Solid State Protection System
STI	Special Test Instruction
SWHX	Seal Water Heat Exchanger
S/D	Shutdown
S/G	Steam Generator
TACF	Temporary Alteration Control Form
Tavg	Average Temperature
TCV	Temperature Control Valve
TDAFW	Turbine-Driven Auxiliary Feedwater
TDCT	Tritiated Drain Collector Tank
TDPU	Time-Delay Pickup
TEACP	Temporary Exterior Access Control Portal
TEMA	Tennessee Emergency Management Agency
TI	Technical Instruction
TS	Technical Specification(s)
TS	Technical Support
TSC	Technical Support Center
TSCDS	Technical Support Center Data System
U2C5	Unit 2 Cycle 5
UF	Underfrequency
UHIH	Upper-Head Injection Hanger
UHI(S)	Upper-Head Injection(System)
UO	Unit Operator
USQ	Unreviewed Safety Question
USQD	Unreviewed Safety Question Determination
UV	Undervoltage
U.L.	Underwriters Laboratories
V	Volt
VCT	Volume-Control Tank
VOM	Volt/OHM Meter
WC	Water Column
WGC	Waste Gas Compressor
WGDT	Waste Gas Decay Tank
WGS	Waste Gas System
WOG-ERGs	Westinghouse Owners Group-Emergency Response Guidelines
WP	Workplan

CHANGES IN THE FACILITY - MODIFICATIONS

DCN/ECN	DESCRIPTION	SAFETY ANALYSIS
D08933	This DCN changed the valve position of valves 68-305 and 68-308 for both Units 1 and 2 from normally open to normally closed. Valve 68-305 is an isolation valve for the nitrogen supply to the PRT. Valve 68-308 is an isolation valve for the line from the PRT to the waste gas analyzer. SAR Figures 5.1-1, 5.1-7, 5.1-9, and 11.2.2-5, containment penetration tables 6.2.4-1 pages 58 and 113, and the inservice valve testing program tables SAR pages 6.8C-43 and 6.8C-44 were affected by this DCN.	These valves are air operated containment isolation valves. Their safety function is to close upon receiving a containment isolation signal. Changing their normal position from open to closed did not affect their ability to perform this function. The solenoid valves supplying air to the FCV actuator has been de-energized in this new alignment, which does not contribute to any adverse affects. There is no commitment to provide a continuous supply of nitrogen to the PRT or to continuously monitor the PRT gases. Procedures were revised to require that the PRT pressure be monitored frequently to prevent it from becoming depressurized and inleakage of oxygen occurring. Therefore, this change was not detrimental to nuclear safety.
D09217	This was a documentation-only change to revise drawings to reflect the condenser hotwell sample system tubing and associated manual isolation valves installed in the turbine building. Additional sample tubing has been installed to provide an alternate path for delivering a sample from the Unit 1 and Unit 2 hotwells to the titration room. This DCN also added unique identifiers for the associated manual valves on the physical tubing drawings. Also, samples that pass through a hydrogen analyzer in the turbine building are not discharged into a sample drain in lieu of the original closed loop configuration. SAR Figure 10.4.1-1 was one of the drawings revised by this change. The condensate sampling system provides no safety related functions.	This change enhanced the Unit 1 condensate hotwell sampling system by providing an alternate sample path between the hotwells and the titration room. Because the Unit 2 hotwell sample pumps have been abandoned in place, this change provided the only path from the hotwell to the titration room. The function of the sample system was unaffected by this change. This change did not increase the probability of an accident or reduce the margin of safety within the system. The possibilities and consequences of a sampling system malfunction remain unchanged.
D09243	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through this DCN have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR and to Appendix 6.8C. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment.	This D-DCN addressed various documentation only type changes identified by DDs. The drawing discrepancies included in this DCN include, but are not limited to, valve position changes, valve type changes, valve additions and deletions, and configuration changes. All changes performed by this D-DCN are limited to design output changes only. No physical modifications or alterations to any systems were generated by this DCN. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by this DCN did not impact system operation or integrity.
D09247 D09248 D09249	These DCNs were generated specifically as a "documentation only" DCNs, i.e., changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. These DCNs incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. DDs processed through these DCNs had no affect on any system's operational characteristics, methods for ensuring	These DCNs addressed various documentation only type changes identified by drawing deviations. All changes performed by these D-DCNs were limited to design output changes only. No physical modifications or alterations to any system were generated by these DCNs.

	compliance with TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR was in the form of drawing-related changes to affected figures contained in the SAR. Figures noted as partially correct or as not updated in a particular amendment were corrected accordingly and incorporated into a future SAR amendment.	
D09332 D09334	These DCNs were generated specifically as "documentation change only" DCNs, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. These DCNs incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through these DCNs have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment.	These DCNs addressed various documentation only type changes identified by drawing deviations. All changes performed by these D-DCNs were limited to design output changes only. No physical modifications or alterations to any system were generated by these DCNs.
D09339	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through this DCN have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR and to Appendix 6.8C. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment.	This D-DCN addressed various documentation only type changes identified by DDs. The drawing discrepancies included in this DCN include, but are not limited to, valve position changes, valve type changes, valve additions and deletions, and configuration changes. All changes performed by this D-DCN are limited to design output changes only. No physical modifications or alterations to any systems were generated by this DCN. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by this DCN did not impact system operation or integrity. Therefore, this design change did not increase the probability or consequences of an accident or malfunction of equipment important to safety previously evaluated in the SAR, nor did it create the possibility of an accident or malfunction of equipment important to safety different than any previously evaluated in the SAR. This design change did not reduce the margin of safety as defined in the basis for any TS. There is no USQ.
D09340 D09387	These DCNs were generated specifically as "documentation change only" DCNs, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. These DCNs incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through these DCNs have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained	These DCNs addressed various documentation-only type changes identified by drawing deviations. All changes performed by these D-DCNs were limited to design output changes only. No physical modifications or alterations to any system were generated by these DCNs.

	in the SAR. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment.	
D09464	Drawing Deviation 92DD6373, associated with this DCN, identified discrepancies between the logic and schematic drawings. Also, the DD required that TS-31-479 be changed to TC-31-479 on instrument tabs 478601-31-series. Nuclear Engineering evaluated this DD and found it to be valid, but did not completely agree with the logic sketch attached to the DD. The sketch attempted to correct the handswitch HS-31-318 logic which was shown improperly to have a spring return to a disconnected terminal instead of spring return to P-AUTO. It did not go far enough to correct the "memory box logic" that was shown on the logic. This is where solenoid valves were shown to receive either an open signal or a close signal, instead of either energized or not energized. This greatly complicated the logic as well as making it incorrect. According to the TSS system engineer, the system was operating properly as installed by the schematic drawing. Since the logic drawing is conceptual by nature and already known to be incorrect, it was revised to agree with the schematic drawing. NE coordinated with TSS, the originator of the DD, to receive concurrence on the revised logic sketch to be incorporated onto the logic drawing. No field work was required for this DD, and as such, the subject DCN was processed as an SDCN to finalize the DD changes onto the logic and tab drawings. This DCN was generated specifically as a documentation change only DCN, i.e. changes which do not impact system operation or design and are made to reflect the as-built configuration. Drawing deviations processed by this DCN did not affect any systems' operational characteristics, method for insuring TSs, or any procedures outlined, summarized, or described in the SAR. This DCN documents the acceptable findings of 92DD6373 as approved via NE evaluation, which is part of the DD. This required the revision of a logic drawing which is a primary drawing. As a result, the SAR Figure 9.1.10-2 for this drawing required updating.	DCN D09464 addressed documentation type changes identified by 92DD6373. All changes performed by this DCN were limited to design output changes only. No physical modifications or alteration to any systems were generated by this DCN. Because the logic drawing is conceptual, conveying the method of instrument loop operation, the components are installed using the physical schematic drawing 1, 2-45N777-12, which was not changed by this DD. Since the actual plant configuration as depicted by the schematic drawing remains unchanged, there was no impact on the plant accident or malfunction probability or possibility.
D09626	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Discrepancies resolved by this DCN have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment. Chapter 6.8 of the SAR, Section XI test	This D-DCN addressed various documentation only type changes identified by DDs. The drawing discrepancies included in this DCN include, but are not limited to, valve position changes, valve type changes, valve additions and deletions, and configuration changes. All changes performed by this D-DCN are limited to design output changes only. No physical modifications or alterations to any systems were generated by this DCN. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by this DCN did not impact system operation or integrity.

	requirements, required changes to reflect valve type and normal position changes. These changes were included in an SAR change request.	
D09657	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Discrepancies resolved by this DCN have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR. Figures noted as partially correct or as not updated in a particular amendment will be corrected accordingly and incorporated into a future SAR amendment. There were text changes required to the SAR as a result of the changes made by this design change. Chapter 6.8E page 12 of the SAR, Section XI test requirements, required changes. This listing includes the valve number, ASME class, drawing coordinated, valve category, size, valve type, actuator type, normal position, testing required, relief request, alternative testing and remarks section. As a result of the changes outlined by this SA/SE, the valve position for valve 0-62-1057 as identified in the SAR was changed from open to locked open.	This D-DCN addressed various documentation only type changes identified by drawing and procedure discrepancies. The drawing discrepancies included in this DCN include, but are not limited to, valve position changes, valve type changes, valve additions and deletions, and configuration changes. All changes performed by this D-DCN are limited to design output changes only. No physical modifications or alterations to any systems were generated by this DCN. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by this DCN did not impact system operation or integrity.
D09720 D09871	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Discrepancies resolved by this DCN have no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR is in the form of drawing-related changes to affected figures contained in the SAR.	This D-DCN addressed various documentation only type changes identified by drawing deviations and walkdowns. All changes performed by this D-DCN were limited to design output changes only. No physical modifications or alterations to any systems were generated by this DCN.
D10037	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through this DCN had no affect on any systems' operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR was in the form of drawing related changes to affected figures contained in the SAR and to Appendix 6.8C.	This D-DCN addressed various documentation-only type changes identified by drawing deviations. All changes performed by this D-DCN were limited to design output changes only. No physical modifications or alterations to any system were generated by this DCN.

D10051 D10053	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are made to reflect the as-built plant configuration. This DCN incorporated valid discrepancies identified between actual plant configuration and design output into their appropriate documentation. Drawing deviations processed through this DCN had no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact on the SAR was in the form of drawing related changes to affected figures contained in the SAR.	This D-DCN addressed various documentation only type changes identified by drawing deviations. The drawing discrepancies included in the DCN include, but are not limited to, valve position changes, valve type changes, valve additions and deletions and configuration changes. All changes performed by this D-DCN were limited to design output changes only that document the as-constructed configuration. No physical modifications or alteration to any system was generated by this DCN.
D10109 D10155	These DCNs were generated specifically as a "documentation change only" DCNs, i.e. changes which do not impact system operation or design and are being made to reflect the as-built plant configuration. These DCNs incorporated valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through this DCN had no affect on any systems' operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR was in the form of drawing related changes to affected figures contained in the SAR and to Appendix 6.8C.	These D-DCNs addressed various documentation-only type changes identified by drawing deviations. The drawing discrepancies included in these DCNs included, but were not limited to, valve position changes, valve type changes, valve additions and deletions and configuration changes. All changes performed by these D-DCNs were limited to design output changes only. No physical modifications or alterations to any system were generated by these DCNs. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by these DCNs did not impact system operation or integrity.
D10292	SAR Figure 9.2.7-2, Raw Cooling Water Flow Diagram, shows the alignment of various valves in the RCW system. The SOI for the Main Generator Bus Duct Cooling System, 0-SO-58-1, requires that RCW valves 1&2-VLV-024-0500 and 0502 to the main generator bus duct train "A" heat exchanger be normally open. SAR Figure 9.2.7-2, Raw Cooling Water Flow Diagram, shows these valves normally closed. Drawing Deviation 93007005 was generated to document this discrepancy between the plant procedure and the flow diagram. This SE addressed the safety implications of normally opening RCW valves 1&2-VLV-024-0500 and 0502.	The RCW system is located in the auxiliary, turbine and additional equipment buildings. The RCW system's safety function is not to impact any safety-related equipment adversely. Opening RCW valves 1&2-VLV-024-0500 and 0502 will not increase the probability of an accident or malfunction of equipment important to safety because the RCW system does not interface with other safety-related systems. The possibility of or the consequences of an accident or malfunction of equipment important to safety will not increase since the RCW system is not interconnected with any other safety-related system. RCW is not covered by any TS. The margin of safety as described in the TSs is not affected.
D10341	This DCN affected the MFW system and the Sampling System. This DCN changed the No. 1 FW heater header sampling isolation valves 1&2-VLV-003-0549 from normally closed to normally open. SAR Figure 10.4.7-2 was affected by this change.	The No. 1 FW heater header sampling isolation valve is located in the turbine building. The MFW system's safety functions are to provide feedwater and containment isolation and not impact any safety-related equipment adversely. Opening No. 1 FW heater header sampling isolation valves 1&2-VLV-003-0549 does not increase the probability of an accident or malfunction of equipment important to safety because the No. 1 FW heater header sampling does not provide feedwater or containment isolation or interface with other safety-related system. The possibility of or the consequences of an accident or malfunction of equipment important to safety was not increased. No. 1 FW heater header sampling is not covered by any TS. The margin of safety as described in the TSs was not affected.

DCR 3446	This SE covers three DCNs (G03441, G03074, and G02852). These DCNs allowed valve packing configurations to be replaced with configurations which achieve longer service life. The extended service life is documented in EPRI Report NP-5697, Project 2233-3, Final Report, May 1988. The substitution was required to achieve longer packing service life. The changes involve: (1) improved packing materials, (2) optimum number of packing rings and spacers, and (3) stuffing box live load devices (when valve type permits). On valves configured as such, gland seal water and leakoff connections were disconnected and the valve connection plugged or capped. SAR Sections 5.5.7.2.1, 5.5.12.2 and 6.3.2.2 were revised to specify that some valve packing configurations have been upgraded to EPRI recommendations.	The activity did not increase the probability or the consequences of an accident or the probability of occurrence or consequences of a malfunction of equipment important to safety previously evaluated in the SAR. The activity did not create the probability of an accident or the probability of occurrence of a malfunction of equipment of a different type than any evaluated previously in the SAR. The new packing configurations lessen the chances of leakage. The design basis requirements for the systems involved continue to be met. Calculation SCG-4M-00649 ensures that pressure boundary integrity is maintained for the plugged leakoff configuration. Safety-related valves which must function to mitigate the consequences of a DBA were stroke tested to ensure that they functioned as required to support the design basis and that the open/closure rates were met. Given these considerations, the margin of safety as defined in the basis of the TSs is neither changes or reduced. There is no USQ.
G08937	As a result of pipe wall damage caused by erosion/corrosion, it was necessary for specific piping components at Sequoyah to be changed to Cr Mo steel or other corrosion resistant material to resist erosion/corrosion. The EPRI developed computer program CHECKMATE was used to identify the piping components that were susceptible to erosion/corrosion damage. Inspections are performed during each outage to ensure that susceptible components have sufficient wall thickness to meet plant code of record and NRC criteria. Sequoyah participates in the EPRI data base to determine where erosion corrosion failures have occurred. This data is used to identify locations at SQN likely to have erosion corrosion damage. These locations are inspected and damaged carbon steel pipe components repaired or replaced with Cr Mo or other erosion corrosion resistant materials as allowed. Only the nonseismic, nonsafety-related portions of various piping systems are allowed to have their carbon steel piping/fittings substituted with stainless steel via this DCN.	The replacement of carbon steel with Cr Mo or stainless steel in locations where piping components have experienced wall loss as a result of erosion/corrosion is an acceptable change because: (1)the Cr Mo and carbon steel are very similar in strength and other properties. (The composition of the Cr Mo contains 1.25 percent Cr and 0.5 percent Mo, which makes the steel slightly more difficult to weld but the basic properties of the two steels are about the same); (2)carbon steel, 304, 304L, and 316 stainless steel, and Cr Mo steel are acceptable material for ANSI B31.1 code construction. The decision to use carbon steel was based on economic factors because carbon steel is less expensive and easier to weld; and (3)The 47W4XX drawings will be changed to show where Cr Mo or stainless steel is installed.
L5739	The original design method of collecting samples consisted of 3/4-inch sample lines that ran from the discharge of the evaporator concentrate pumps in the BAE rooms to isolation valves and sample bombs located outside of the BAE rooms. The lines then return to the evaporators in the respective BAE room. Problems associated with the original design were: (1)the creation of a radiological spill hazard in a clean area from the leakage of the boric acid solution at the quick disconnects of the sample bomb, and (2)the plugging of the sample line because of the lack of heat tracing and insulation on the sample bomb. ECN L5739 provided a permanent solution to the problems associated with the original method of sampling. The ECN replaced the sample bomb, its isolation valves and quick disconnects with a 3/4-inch line and a root valve. The line and the root valve occupy the location vacated by the sample bomb and its associated valves and disconnects. The new line is heat traced and insulated. Since the operating temperature of the	These changes affect details of how the sampling process is implemented. They had no affect on the system design or function requirements, and such details are not discussed in the SAR. It was necessary to change SAR Figure 9.3.4-6, which shows the BAE portion of the CVCS, and Figure 9.3.3-2, which shows the equipment and floor drain system interconnection required by the drain coming from the sample sink. TSs do not specifically address sampling of the BAE. There was no increase in the consequences of or probability of a DBA. The change did not increase the probability of a failure of a safety system or degrade the performance of a safety system below that assumed in the design basis analysis. The potential for a new type of unanalyzed accident or a new type of malfunction was not created. There was no decrease in the margin of safety as defined in the basis for any TS.

	system can be near the design temperature of 250 degrees F, liquid drawn from the root valve may flash and release airborne activity into a clean area. For this reason, ECN L5739 was revised to provide a new sample method that eliminates the possibility of contaminating a clean area. The revised modification provided an enclosed sample sink in BAE room B at el 669 Q/A13. The sample sink serves both A and B evaporators, and the existing 3/4-inch sample lines have been rerouted to the sink. The configuration of the new sample loop is the same as the old sample loop except that the isolation and root valves are located in the BAE room B rather than outside of the BAE room. This modification reduced the length of the sample loop; therefore, the power required for the heat tracing of the loop was decreased. In addition to the sample lines, the sample sink is equipped with a 3/4-inch demineralized water line for flushing the sink and a 1-inch drain line for drainage. The sample sink is also provided with a short 3/4-inch vent line to direct radioactive gases and steam away from the technician in the event that the sample "flashes" while collecting. These changes were designed to meet or exceed the design requirements of the systems affected.	
L6478	This modification installed an Anticipated Transients without Scram Mitigating System Actuation Circuitry which automatically trips the main turbine and actuates the AFW system independent of the RPS. The modification was made to both Unit 1 and Unit 2. The AMSAC signal initiation begins upon detection of three out of four steam generator low-low water levels. The low-low water level detection logic then starts a timer set at approximately 30 seconds. Upon timer completion, if reactor power is above approximately 40 percent, the signal trips the main turbine and starts the AFW pumps. However, this signal is blocked below power levels of approximately 40 percent. To ensure AMSAC remains armed sufficiently long enough to perform its function in the event of a turbine trip, the removal of the initiation signal is delayed by approximately 360 seconds.	The impact of this modification has been properly evaluated. The AMSAC system interfaces with safety-related equipment, but the implementation was such that it did not degrade the RPS, AFW system, MFW control system, MSS, nor any other safety-related system. This change did not decrease the margin of safety as defined in the basis for any TS. AMSAC is not included in the TSs. The change did not involve any USQ.
M01435	DCN M01435A provided the design for the first of three stages which upgraded the Unit 1 shield building vent stack effluent monitoring instrumentation. DCN M01435B implemented stages 2 and 3 and ensured compliance with NUREG 0737 and Reg. Guide 1.97 R2. A thermal dispersion velocity array type flow element was installed in the EGTS, ABGTS, and each of the two containment purge ventilation discharge ducts. A new primary sample pump skid was installed in the CRDM motor room on el 759 in the auxiliary building near the existing pump skid. The new pump skid consists of two pumps instead of the one mounted on the existing skid. Existing normal and accident Eberline radiation monitoring equipment was replaced with Sorrento radiation monitoring equipment. RE-90-100 on el 759 was permanently removed from service after successful testing of the new Sorrento radiation monitoring equipment.	This modification had no affect on safe shutdown of the plant, nor did it introduce any new radioactivity releases. The modification did not introduce any new failure modes. All components are seismically supported and analyzed in accordance with the applicable requirements and did not introduce any additional failure modes to existing equipment. This activity has no affect on the performance of any system important to safety. The new vent stack effluent monitoring instrumentation is more reliable and accurate than the existing instrumentation.

M02644	This safety evaluation was performed to evaluate the effects of deactivating the boron injection tank relative to the capability of the ECCS to mitigate the consequences of a steam line break. The BIT was functionally deactivated under DCN M02644. The injection tank physically remains in the safety injection system, but no longer serves as a source of highly concentrated boric acid. However, the injection tank continues to serve as part of the high head/low flow injection path for initial emergency core cooling provided by the centrifugal charging pumps. The boron concentration in the injection tank is essentially that of the normal RCS charging flow. For the purpose of analysis, the boron concentration in the injection tank was assumed to be "0" ppm.	There were no credible failure modes associated with the physical changes associated with this DCN, nor were there any credible failure modes associated with the functional deactivation of the BIT. This change did not contribute to the initiation of any DBAs. There was no increase in the probability of or consequences of an accident. The modification did not degrade the performance of a safety system below that assumed in the design basis analysis. The change did not create the potential for a new type of unanalyzed accident of a new type of malfunction. There was no decrease in the TS margin of safety. There was no USQ.
M06259	This modification added pressure differential indicators to both sides of the station control and service air and the auxiliary control air afterfilters. The need for these pressure differential indicators was noted and recommended under INPO/NSAC significant operating experience report 81-9. INPO SOER 81-9 recommended frequent monitoring of the filter differential pressure to ensure that the filter elements are not plugged or torn. Installation of pressure indicators on either side of the afterfilters allows field personnel to monitor differential pressure across the filters and thereby monitor the condition of the filter.	Three SAR figures have been revised as a result of this design change. The addition of the pressure indicators does not affect any control function. They are strictly for local monitoring of the differential pressure across the afterfilters. The indicators do not perform any nuclear safety function. Adherence to TS requirements during the installation of the pressure indicators ensured that there was no reduction of margin of safety as defined in the basis of the TSs. There was no USQ.
M06420	This DCN was written to support replacement of the CCP 1B-B casing. This work was implemented during the Unit 1 Cycle 6 refueling outage.	The change does not affect the plant's ability to comply with any of the TSs reviewed. The change did not change or affect the pump's normal or safety-related function. Replacement of the current carbon steel weld clad pump casings with new all stainless steel casings will assist in minimizing cracks in the pump casings which can lead to down time or possibly failure. There was no reduction in the margin of safety. The change did not involve a USQ.
M06451	PCN-0649 was issued to approve the construction of a cafeteria adjacent to the plant office building and service building at Sequoyah. Because of the tight construction schedule, TACF 0-91-016-027 was issued rerouting some nonsafety class H and L piping systems in that area to remove them from under the foundation and footings for the cafeteria. This DCN provided for the permanent routing of the impacted system piping. The DCN also covered the interfacing of systems supplying services necessary for the operation and functionability of the cafeteria.	The systems affected by this DCN are nonsafety related. This activity did not impact safety-related equipment and did not impact or create any DBAs or anticipated operational transients. There was no reduction in the margin of safety. There was no USQ.
M06610	This modification replaced the nonsafety-related boric acid blender transmitter 2-FIT-62-142 that functions to monitor primary water flow to the boric acid blender and provide control input to the reactor makeup system. Since the existing sensor configuration was composed of an in-line rotometer magnetically coupled to the transmitter, the rotometer was replaced with a pipe segment containing flanges and orifice plate. The existing transmitter	This modification did not involve safety-related or TS instrumentation. The safety evaluation was written because this change did involve an SAR figure - the control diagram. The affected equipment is not required to mitigate any accident or for safe shutdown of the plant. The reactor makeup control system was functionally unchanged as a result of this modification. Additionally, the fluid composition of the boric acid blender was not altered; only the manner in

	output loop current was 10-50 mA. Since the transmitter replacement selection is 4-20 mA, the associated dropping resistors for the loop voltage devices 2-FC-62-142, 2-FM-62-142A, and 2-FR-62-139 were changed from 100 ohm to 250 ohm. Additionally, the 10-50 mA VX252 model indicator 2-FI-62-142 was replaced with a MX252 4-20 mA indicator. Since the existing transmitter was provided with a built-in power supply, a new loop power supply 2-PX-62-142 was also added.	which the primary water flow signal is obtained and processed within the instrument control loop.
M07151	This DCN prepared the setpoint and scaling documents required to provide the calibration and adjustment for selected instrumentation devices in Unit 1. With the proposed changeout of the Static"O"Ring pressure switches in a portion of AFW system, new updated setpoint and scaling documents were required for their associated instrument devices.	With the issuance of the required setpoint and scaling documents for the portion of Unit 1 AFW being modified by replacement of the Static"O"Ring pressure switches, the setpoints for actual transfer between the 4-inch and 2-inch FW flow LCVs will be designated at new values. The establishment of new setpoints allows for the increased deadband of the replacement devices due to the higher overrange capability of the new design. The margin of safety for TSs was not affected by this activity, the Static"O"Ring pressure switches involved are not TS devices. There were no unreviewed safety questions.
M07152	This DCN prepared the Setpoint and Scaling Documents (SSDs) required to provide the calibration and adjustment for selected instrumentation devices in Unit 2. With the changeout of the Static"O"Ring pressure switches in a portion of AFW, new updated SSDs were required for their associated instrument devices. The new design SOR pressure switches installed required a change of setpoints for the initiation of the action to transfer control of AFW level control valves to the steam generators. This DCN effects the change of setpoints for the logic control circuits through the SSDs.	With the issuance of the required SSDs for the portion of Unit 2 System 03 modified by replacement of the SOR pressure switches, the setpoints for actual transfer between the 4-inch and 2-inch feed water flow level control valves are designated at new values. The establishment of the new setpoints allows for the increased deadband of the replacement devices due to the higher overrange capability of the new design. The valve control logic performs as designed and described in the SAR, but at a new setpoint. The margin of safety for TSs were not affected by this activity. The SOR pressure switches involved are not TS devices. There were no USQs identified.
M08402	The implementation of the Unit 2 design change was the first stage of a total design change of the ice condenser floor. The floor was further evaluated and modified during refueling Cycle 6. To provide adequate clearance at the lower inlet doors, the horizontal flashing was reinstalled to its original position. To prevent the wear slab from acting on the horizontal flashing, the vertical flashing was removed. The flashing did not provide any structural support function. This component of the doors is used to protect the original bagged insulation below the door frame from damage and to keep water channeled within the area that drains. The fiberglass insulation contained in polyethylene bags installed behind the flashing was replaced. A replacement insulator (Armstrong "Armaflex" cellular foam) was installed. This material was sized and attached to the crane wall (using Armstrong 520 adhesive). The new material provides insulation equivalent to that of the original material, i.e., the thermal resistances of the insulation materials are approximately the same. The adhesive used ensures that the new	No TS changes were required for this activity. TS 3/4.6.5.3 was not affected. This TS addresses the operability of the ice condenser lower inlet doors (also the intermediate deck doors and top deck doors). The primary safety function of the ice condenser is maintained. SAR section 6.5.1 was revised to include a description of the modifications to the wear slab, floor drains, and turning valves. A statement was added to the SAR for the condition and acceptance of "ponding" as a result of wear slab upheaval. Other SAR sections and figures were revised as necessary. There was no USQ.

	material remains in place under DBA conditions. The floor turning vanes were raised to provide clearance above the wear slab, thereby eliminating any potential loading from the wear slab and restoring the turning vanes to their original design conditions.	
M08544	Obsolete turbine recorders were replaced under this DCN. These recorders were nonsafety related. An SE was required only because an SAR drawing required revision to reflect the new installed recorder and related panel layout. This modification was considered an upgrade of equipment and the function of the new components remains unchanged from the existing.	The affected system is not safety related, is not required for safe shutdown of the plant, and does not involve any equipment that has been previously evaluated in the SAR. For those reasons, this activity did not change any previous assumptions, initial conditions, initiating events or analyzed accidents contained in the SAR or alter the margin of safety for any system or component as specified in the TSs. Therefore a USQ does not exist.
M08573	DCN M08573 modified valve 1-FCV-63-172. This SA/SE evaluated the installation of a 1/2-inch bypass line from the body of FCV-63-172 to the downstream process piping. The bypass line contains a 1/2-inch Kerotest manual globe valve. The purpose of the bypass line is to provide a relief path for potentially trapped fluid inside FCV-63-172 to vent. This ensures that the valve is not disabled due to the pressure locking or liquid entrapment phenomena discussed in SOER 84-07. 1-FCV-63-172 was modified during the U1C5 refueling under DCN M06407. The 3/16-inch drilled hole was eliminated by welding the hole closed. Eliminating the hole and continuing to use the existing wedge minimizes the amount of radwaste generated during refueling outages.	Installing the 1/2-inch bypass line from the body of FCV-63-172 to the downstream piping does not affect the ability of the valve to seat. The bypass line ensures the valve does not become pressure locked during normal operation precluding its opening 12 hours after the initiation of ECCS containment sump recirculation. Plant maintainability and performance is improved in that the existing wedge with the drilled hole in Unit 1 has been removed and the hole eliminated by welding it closed. SAR Figure 6.3.2.1 required revision to depict the new 1/2-inch bypass line. The modification does not affect Sequoyah's ability to comply with TSs. There was no USQ.
M08574	SOER 84-07 identified several different phenomena which could render certain types of gate valves inoperable if certain conditions occurred during the operation of a plant. As a result of a system/component review for potentially affected gate valves, valves 1-FCV-63-172 and 2-FCV-63-172 were identified as potentially affected valves. This change involved a modification to the RHR hot leg recirculation isolation valve 2-FCV-62-172. A body bypass valve and piping are added to the TVA class "B" isolation valve to abate potential pressure locking per INPO SOER 84-07.	The modification provides assurance that the valve will open for hot leg recirculation and not be pressure locked. Total RHR hot leg flow is unaffected by this change. A minor peak clad temperature impact results as a result of disc leakage calculated for injection and cold leg recirculation. There was no significant impact on ECCS performance or core cooling. Containment isolation of this closed system was not affected. There was no USQ.
M08653	The existing obsolete turbine recorders mounted on the 2-M-1 panel in the MCR were replaced. They were declared obsolete because they were out of manufacture and spare parts were no longer available for repairs. The functions of the three existing turbine recorders were combined into two state-of-the-art Johnson-Yokogawa HR2500E recorders. This modification also combined the existing 15 temperature points previously monitored by 2-TR-47-1 with the 24 temperature points monitored by 2-TR-47-2 into a new hybrid recorder redesignated as 2-TR-47-1 for temperature only. The 15 vibration/expansion points previously monitored by 2-XR-47-3 were installed on a new separate hybrid recorder redesignated as 2-XR-47-2.	An SE was required only because a change was required to SAR Figure 7.1.4-1. It was revised to reflect the new installed recorders and related panel layout. The subject recorders are not safety related. This modification was considered an upgrade of equipment, and the functions of the new components remain unchanged from those previously existing. The affected system is not safety related and is not required for safe shutdown of the plant and does not involve any equipment that has been previously evaluated in the SAR. This modification did not change any previous assumptions, initial conditions, initiating events or analyzed accidents contained in the SAR or alter the margin of safety for any system or component as specified in the TS. There was no USQ.

M08688	This Unit 1 modification replaced the original LCV-06-106A&B control valves in the discharge of the No. 3 heater drain pumps with new valves that are better suited for the type of service required. The change was implemented in two phases. The first phase could occur in a preoutage power reduction that involved only inserting the valve into the existing system. Phase 2 occurred during the Cycle 6 RFO and included piping modifications and changes to the instrument loops 1-L-06-106 and 1-F-06-107. The changes result in more reliable system operation and less incidents of spurious unit load runbacks.	As part of this modification, SAR figures 10.4.9-1 and 10.4.9-5 were revised to show the piping and control logic arrangement. SAR text and tables were also revised to reflect new runback logic. No TSs were impacted by this modification. This modification did not impact nuclear safety and did not represent a USQ.
M08716	This modification permanently installed a Fluke 2286A Data Logger and extender chassis in Rack 112 in the auxiliary instrument room of Unit 1. The rack was extended to enclose and protect the Fluke and associated cables. A similar modification was performed on Rack 111. In addition, the recorders were connected to the TSCDS to allow the operator to monitor any point from the MCR. The existing recorders were removed and patches installed on panel M-10. This modification also changed various setpoints associated with the CRDM coolers exhaust temperature, the LCCs intake and the exhaust temperature, the upper compartment coolers intake and exhaust temperature, the CRDM shroud outlet temperature, and the condensate booster bearing temperatures. In addition, the setpoint for the main feed pump turbine stop valve temperature was deleted. These changes were made to eliminate nuisance alarms.	The temperatures being monitored and alarmed are nonsafety related and are not used to determine TS compliance. These temperatures do not reduce the effects or prevent any accidents. For these reasons the probability of an accident or malfunction of equipment important to safety or the consequences of an accident or malfunction of equipment important to safety evaluated in the SAR are not increased. There are no new accidents or equipment malfunctions different than those previously evaluated in the SAR created by the implementation of this DCN. This temperature monitoring system is not covered by TSs. Therefore, the margin of safety for any TS is not reduced. The setpoint changes have been reviewed and qualified by various Quality Information Releases, and/or based on revised vendor information or calculations. The specific justification for each change is contained in the safety assessment for this DCN.
M08720	The temperature sensors for the Unit 1 reactor building lower compartment (in the vicinity of the control rod drive coolers) are improperly located with inappropriate setpoints and as such indicate an area high temperature alarm condition when none is present. The high temperature condition causes startup of standby coolers when the coolers are in an automatic mode of operation. Startup of these coolers may result in average air mass temperature outside the TS limits. The coolers are therefore operated in a manual mode, shutting down on a containment Phase B signal only. The A-P auto mode is not used. This alarm and equipment startup is considered a nuisance and required correction. This modification accomplished two things. First, the A-P auto control circuit was modified by deletion of the high temperature and low flow signals as inputs thereby leaving the containment isolation phase B signal as the only nonmanual control signal. Second, the high temperature alarm originating at these temperature switches was eliminated. Because of asbestos cable, the temperature switches and cables connecting to them were abandoned in place. Additionally, the wiring, conduit, and cable for the CRDM fans, dampers and associated equipment were detrained because the fan motors were never purchased as safety related.	This modification did not involve an unreviewed safety question. The equipment involved is not safety related. The equipment is quality related for seismic I(L), and it is not required to be operated in the automatic mode. These fans, together with the LCCs, have sufficient margin to maintain the average air temperatures within the SQN TS. The local containment average air temperature sensors provide the operators indication of lower containment temperatures. Therefore, automatic fan operation based on existing temperature switches is not required. Past operating records provide data substantiating this conclusion as well as the fact that this equipment has been operated in manual for some time.

M08721	The temperature sensors for the Unit 2 reactor building lower compartment (in the vicinity of the control rod drive coolers) were improperly located with inappropriate setpoints and as such indicated an area high temperature alarm condition when none was present. This modification accomplished two things. One, the A-P auto control circuit was modified by deletion of the high temperature and low flow signals as inputs thereby leaving the containment isolation phase B signal as the only nonmanual control signal. Two, the high temperature alarm originating at these temperature switches was eliminated. Additionally, the wiring, conduit, and cable for the CRDM fans, dampers and associated equipment were detrained because the fan motors were never purchased as safety related.	This modification did not involve a USQ. The equipment involved is not safety related. The equipment is quality related for seismic I(L) and is not required to be operated in the automatic mode. These fans, together with the LCCs, have sufficient margin to maintain the average air temperatures within the SQN TS. The local containment average air temperature sensors provide the operators indication of lower containment temperatures. Therefore, automatic fan operation based on existing temperature switches is not required. Past operating records provided data substantiating this conclusion as well as the fact that this equipment has been operated in manual for some time.
M08748	This DCN provided drawing changes for the unit board and main control room electrical board circuit breaker controller nameplates to indicate that the normal power supplies to the 6.9 kV unit boards will be from the offsite power system supplied CSSTs via the start buses instead of the nuclear unit (main generator) supplied USSTs. In addition, electrical key diagrams and unit board single lines and connection drawings were revised to authorize circuit breaker alignment changes for the unit board normal power supply to be from the CSSTs and alternate supply to be from the USSTs. Also, the 54 conductor - 500 MCM cable bus between CSST C secondary windings X and Y (27 conductors per power feed) and the start boards (start buses 2B and 1B) was replaced with 750 MCM cables to provide sufficient cable ampacity. The cabling replaced and the replacement cables are rated for 8 kV service with a SQN 6.9 kV (nominal) service application. The worst case loading condition (2 unit operation) with the CSST system normally aligned to supply the plants auxiliary power system exceeds ampacity ratings for the existing 500 MCM cable bus configuration. The existing underground conduit duct banks were utilized for these new replacement cables.	CSST system normal alignment to the plants auxiliary power system during normal plant operation is a plant design enhancement. This modification is being implemented to provide additional protection to equipment connected to the power systems. Based on the results reached in the safety evaluation and NSSS supplier Westinghouse's review and approval of SAR Chapter 15 changes and adherence to the special requirement provided in the safety assessment, completion of fast transfer circuitry modifications, the modifications could be implemented as proposed since no USQ was involved.
M08797	The original Unit 2 LCV-06-106A&B control valves in the discharge of the No. 3 heater drain pumps were replaced with new valves that are better suited for the type of service required. The change was implemented in two phases: Phase 1 - in preoutage power reduction that would involve only inserting the valve into the existing system; Phase 2 - during the Cycle 6 refueling outage or sooner if a unit outage occurred of sufficient duration to allow implementation of piping modifications and changes to the instrument loops 2-L-06-106 and 2-F-06-107. These changes result in more reliable system operation and less incidents of spurious unit load runbacks.	As part of this modification, SAR figures 10.4.9-1 and 10.4.9-5 required revision to show the piping and control logic arrangement. SAR text and tables also required revision to reflect new runback logic. No TSs were impacted by this modification. This modification did not impact nuclear safety and did not represent an unreviewed safety question.
M08910	The Unit 1 RCS loops 1 through 4 hot leg temperature modifiers and indicators for nonsafety-related instrument loops 68-1C, 68-24C, 68-43C and 68-65C were replaced with new instruments. A new power supply was also added to these instrument loops. The temperature	An SE was required because SAR Figures 5.1-2, -3, -4, and -5 (TVA drawings 47W610-68-1, -2, -3, and -4, respectively) required revision to show the temperature modifier relocations and to add symbols for the new power supply. There were no changes to the

	modifiers were relocated from existing panel 1-L-181 located inside the Unit 1 reactor building crane wall, el 693 to the Unit 1 reactor building instrument room, el 693, and mounted on new local panel 1-L-562. New cables were routed in new conduits from panel 1-L-181 tc panel 1-L-562 to link the relocated temperature modifiers and new power supply on panel 1-L-652 with the existing electrical circuits on panel 1-L-181. The intent of this modification is to replace obsolete equipment and to relocate the temperature modifiers away from a high radiation area for ALARA purposes. As a result of the replacement of these obsolete instruments, and the addition of a new power supply, the instrument loop current ranges have changed from 10-50 milliamps to 4-20 milliamps.	system function or operation as described in the SAR. The temperature modifier replacements and relocation, and the temperature indicator replacements, fully meet seismic Category 1L qualification, separation criteria, and TS requirements.
M08911	The Unit 2 RCS loops 1 through 4 hot leg temperature modifiers and indicators for nonsafety-related instrument loops 68-1C, 68-24C, 68-43C, and 68-65C were replaced with new instruments. The temperature modifiers were relocated from existing panel 2-L-181 located inside the Unit 2 reactor building crane wall, el 693 to the Unit 2 reactor building instrument room, el 693, and mounted on new local panel 2-L-562. New cables were routed in new conduits from panel 2-L-181 to panel 2-L-562 to link the relocated temperature modifiers and new power supply on panel 2-L-562 with existing electrical circuits on panel 2-L-181. The intent of this modification was to replace obsolete equipment and to relocate the temperature modifiers away from the high radiation area for ALARA purposes. As a result of the replacement of these obsolete instruments and the addition of a new power supply, the instrument loop current ranges changed from 10-50 milliamps to 4-20 milliamps.	A safety evaluation was required because SAR Figures 5.1-2, 5.1-3, 5.1-4, and 5.1-5 (TVA drawings 47W610-68-1, 2, 3, and 4, respectively) required revision to show the temperature modifier relocations and to add symbols for the new power supply. There were no changes to the system function or operation as described in the SAR. The temperature modifier replacements and relocation and the temperature indicator replacements fully meet seismic Category 1L qualification, separation criteria, and TS requirements.
M08924 Base SE	The modifications performed on the ice condenser system in accordance with this DCN provide additional clearance, from the as found condition, between the wear slab and the door frame. Additional clearance is provided by lowering the slab by jacking if required. The jacking forces the wear slab downward toward the design elevation. Another alternative to provide additional clearance is modifying the door frame. The 1"X1"X12 ga. angle attached to the bottom of the door frame sill may be modified to provide additional clearance. With the mofification of the 12 ga. angle, the flashing will also require modification. Before jacking, the floor is thawed/dried. The warming of the slab may lower the wear slab. To seal the gaps between the drains and the pipe socket, this DCN modified the floor drains by placing a stainless steel sheet metal insert into the drain opening and sealing with rubber gasket and sealant. The joints around the perimeter of each bay and the cracks of the wear slabs were sealed with a liquid membrane. Included in this DCN is taking of core samples of the foam concrete from all 24 bays and the repair of the hole. The repair consists of the	Water intrusion into the wear slab with freeze/thaw action has heaved the slab upward. However, there is no adverse effect on the structural integrity of the structural concrete slab as a result of the intrusion of water under the wear slab and the movement of the wear slab. Monitors were installed in accordance with TACF 1-92-0017-061 to measure wear slab movement and available clearance between the door frame and the wear slab. With the modifications performed under this DCN (1)to seal the wear slab joints to eliminate water intrusion, and (2)to provide additional clearance from the as found condition, and with continued monitoring of the wear slab movement as defined by 0-PI-SXX-061-001.0 to ensure no additional equipment impacts are incurred as a result of wear slab upheaval, binding of the lower inlet doors will be prevented and the lower inlet doors will meet the design basis for opening.

	installation of a drain tube to allow for future water removal if required after defrosting. Installation of horizontal foam concrete drains was also performed in Bay 12.	
M08924 Supplement	This SE was written to determine if the degraded foam concrete encountered while implementing DCN M08924 has created a USQ. Core drilling was performed on April 7, 1993. The core drilled hole was completely full of water. Samples removed from the boring were sent to Singleton Laboratory for analysis. All samples were observed to be saturated. Results presented in Singleton Laboratories Report 209-038-001A showed a moisture content by weight of a foam concrete sample to be 193.75%. Singleton Laboratories Report 209-038-001B yielded an ultimate unconfined strength of a foam concrete sample fo 48 psi. The design strength of the foam concrete was specified as 110 psi. With the discovery of the water in Bay 15, additional bays were core drilled. Water was found in all of them. The remaining bays were then core drilled with water being found in all 24 bays. The foam concrete was visually inspected by Civil Engineering. As the result of freeze-thaw action, the integrity of the foam concrete has been compromised. Inspection of the worst case core holes was recorded on videotape. The inspections revealed that in the worst bays, the lower portion (approximately 9 inches) of the foam concrete was in its original condition though saturated with water. The upper portion of some bays displayed fissures and voids with the uppermost portion being disrupted by freeze-thaw action. The degradation of the foam concrete results in the loss or adequate bearing support for the wear slab during a DBA. Because of this, yielding of the wear slab will occur during a DBA and the slab will break essentially into three large pieces. An extensive mat of reinforcing steel and glycol piping will prevent the pieces from separating and migrating. The failure of the wear slab will result in some secondary effects that have been investigated as possible failure modes.	The ice condenser is a passive safety device. The failure of the wear slab as a result of the degraded condition of the foam concrete will not occur until after the accident has occurred and the ice condenser has begun to perform its intended function. This chain of events is known by reviewing the time-history of the pressure buildup within the lower ice condenser plenum. By the time sufficient pressure has developed within the lower ice condenser plenum to fail the wear slab, the doors will have opened and ice melt-out will have started. Any secondary effects resulting from the wear slab failure have been evaluated and found not to involve a USQ.
M08986	This Unit 1 DCN implemented modification of hardware in the CVCS to function with 3.5 - 4.0 wt percent boric acid. The feasibility for the Sequoyah Nuclear Plant to operate using 3.5 - 4.0 wt percent boric acid in lieu of 11.5 - 12.5 wt percent and the supporting documentation for this system operational design change is addressed in the Boric Acid Reduction Project, CEN-602, prepared by Asea Brown Boveri Combustion Engineering Nuclear Services.	The NRC reviewed TS Change 92-08 in support of this change. The approval of TS Change 92-08 was a special requirement of this SA/SE. The flow rates and concentrations downstream of the blending tee are essentially the same after implementation of this project and are therefore bounded by previous analysis. The emergency boration addition rate of boron to the core, however, is reduced to approximately 30 percent of its previous maximum rate based on the 11.5 - 12.5 wt percent boric acid concentration being reduced to 3.5 - 4.0 wt percent boric acid concentration and the actual flow rate remaining the same. Following this design change, the emergency boration flow rate of 35 gpm of 3.5 wt percent concentrated boric acid as required by the TS change is still achievable.

M08987	This Unit 2 DCN implemented modification of hardware in the CVCS to function with 3.5 - 4.0 wt percent boric acid. The feasibility for the Sequoyah Nuclear Plant to operate using 3.5 - 4.0 wt percent boric acid in lieu of 11.5 - 12.5 wt percent and the supporting documentation for this system operational design change is addressed in the Boric Acid Reduction Project, CEN-602, prepared by Asea Brown Boveri Combustion Engineering Nuclear Services. This design change consisted primarily of piping and component changes required to support the use of 3.5 - 4.0 wt percent boric acid, the flushing of the associated lines to remove the 11.5 - 12.5 wt percent boric acid, disconnecting the associated heat trace, and supporting the Unit 1 (DCN M08986) installation of the area temperature monitoring system to be used for compliance the revised TSs.	The NRC reviewed TS Change 92-08 in support of this change. The flow rates and concentrations downstream of the blending tee are essentially the same after implementation of this project and are therefore bounded by previous analysis. The emergency boration addition rate of boron to the core, however, is reduced to approximately 30 percent of its previous maximum rate based on the 11.5 - 12.5 wt percent boric acid concentration being reduced to 3.5 - 4.0 wt percent boric acid concentration and the actual flow rate remaining the same. Following this design change, the emergency boration flow rate of 35 gpm of 3.5 wt percent concentrated boric acid as required by the TS change is still achievable.
M09023	This change involved replacing obsolete Barton transmitters used for level control and indication of the VCT with a newer Rosemount model. This change did away with the installed remote sensing bellows and filled capillary interface and replaced them with a direct interface sense line arrangement. This change did not affect the function or design of the system, but required the revision of SAR Figure 9.3.4-9, control diagram 47W610-62-3, and SAR Figure 9.3.4-1, flow diagram 47W809-1. These revisions are minor in nature and did not significantly affect the information depicted on the drawings.	This change did not affect the basic function, design, or system requirements of the original configuration and equipment. The same system parameters are maintained and the interface with the process is enhanced by removing the transfer functions associated with remote sensing and transfer vial fluid-filled capillaries. This equipment is not required for safety but is quality related. The SAR and TSs were not affected by other than SAR figure revision as described previously.
M09039	This modification was limited to the elimination of Human Factor/Human Engineering Discrepancies. This modification added new indicators for HPFP system pressure, service air pressure, auxiliary control air pressure, control air pressure, control air low pressure annunciation and CCS inlet pressure to OB1/OB2 on MCR panels so that the operators can better ascertain those systems' operating status. This modification also added new annunciator drops for the various isolation signals as well as grouped them on Panel 2-M-6 so that the operator can readily identify which signal caused the isolation and react accordingly. The modification also installed redundant status indication of certain components on Panel 2-M-6 so that the operators will not have to exit the horseshoe area to verify the required steps of the EOP. As part of the modification, the control circuits for MOVs 2-FCV-70-153 and 156 were modified to allow throttle control of these valves from the MCR. The lens covers for the RVLIS isolation status lights (2-XI-68-387A and 390A were changed to blue and amber to comply with the design standard.	The system operations were not affected by the modification except for the operation of 2-FCV-70-153 and 156. The additional status indication, additional annunciation points, and the lens change all eliminate Human Factor/Human Engineering Discrepancies and make the control room more user friendly. The plant was able to operate without these changes and is still able to operate after these changes were installed but more efficiently. The operators are better able to ascertain plant status and thus make more informed decisions. These changes did not result in any USQ.
M09051	Incident investigation II-S-91094 was written to document the assessment of intersystem LOCA from the SWHX to the VCT during a small break LOCA. This DCN documents the new tube side SWHX and piping design pressure rating of 200 psig at 150 degrees F; purchased the required spring and reset the SWHX safety valve 2-62-649; and revised supporting documentation, drawings and code	The new valve setting and design condition of the piping from valve 62-647 through the tube side of the SWHX to valve 62-650 is the same rating as the piping system both upstream and downstream of the subject piping. The pressure rating for this piping section has already been analyzed and found acceptable, including the SWHX. This new, higher pressure setting for SRV-62-649 reduces the

	records. By installing a new spring in valve 62-649, this modification increased the pressure of the tube side SWHX from 150 psig to 200 psig. Civil analysis already qualifies this piping run to 200 psig for the non-TS equipment. Westinghouse letter SWA-92-243 indicated that this set pressure will preclude the intersystem LOCA. In accordance with Atlas Industrial Mfg. Co. letter dated 09/09/92, the tube side of the SWHX may be rerated to 200 psig. The subject interconnecting piping is 4-inch schedule 40S SS rated for 1490 psig at 150 degrees F. Thus, adequate overpressure protection is maintained. The new valve setting and design condition of the piping from valve 62-647 through the tube side of the SWHX to valve 62-650 via the new spring in valve 62-649 necessitated a change to SAR Figure 9.3.4-1 and Table 9.3.4-3 Sheet 3 to show the new setting of 200 psig for the tube side of the SWHX.	probability of actuation, thus reducing the probability of system operational transients. Because this change of pressure is not greater than the piping system and SWHX design pressure, the magnitude and extent of DBAs and anticipated operational transients is not changed. Overall, this change reduces the possibilities for operational transients and improves system realibility/availability for dealing with a DBA (small break LOCA).
M09177	Existing obsolete ice bed temperature monitoring system was replaced with state-of-the-art microprocessor based system. The change to the ice condenser system consists of replacing the MCR recorder and the replacement of the existing multiplexing units at the seal table with new scanner units. Additionally, this modification removes the two obsolete containment moisture recorders and replaces them with a new single three pen recorder. Various changes to Panel 1-M-10 and 1-L-437 were required to accommodate the new hardware. SAR figure 9.4.8.1 required revision to show the changes to the containment moisture recording loops. This was the extent of the SAR impact.	This modification did not change any of the existing failure modes identified, nor did it create any new malfunctions or pathways previously evaluated. This modification did not affect the margin of safety as defined as the basis for any TSs and, therefore, did not constitute a USQ.
M09184	Significant Corrective Action reports SQSCA910003 and SQFIR920072 documented that the DPTs 2-PDT-70-94, 104, 117 and 126 for the CCS thermal barrier heat exchangers are not rated for reactor coolant pressure. Consequently, a possibility existed that a small LOCA could occur through these DPTs exposed to RCS temperature and pressure if the tube for the thermal barrier heat exchangers ruptures and if the diaphragm for the DPTs ruptures. The corrective action for SQSCA910003 recommended isolation of the subject components. The subject DPTs have been isolated from the system and are no longer in service. These components are being physically removed from the system for operational reasons to avoid any accident. The DPTs are not required by design bases or to provide any safety function. However, SAR Figures 9.2.1-3 and 9.2.1-7 required revision to address the changes.	This activity deleted and removed the differential pressure transmitters for the CCS thermal barrier heat exchangers and capped the ends of the associated piping. These components did not perform any control or logic functions, nor were they required to support the function of equipment important to safety. The subject components provided indication only for the differential pressure of the CCW between the inlet and outlet of the thermal barrier heat exchangers. These transmitters were not described in the SAR of the SQN TSs. The removal of these DPTs and their associated loops did not increase the probability or consequences of an accident, nor did it create any possibility of a different type of an accident or malfunction of equipment important to safety previously evaluated in the SAR. There was no reduction to the margin of safety since these changes removed the potential for a small break LOCA.
M09193	The existing main steam radiation monitor detectors, two per steamline, were replaced with one new detector. Existing RMs were provided with low and high range detectors. SQ910175 identified the low range detector as failing as a result of high nominal ambient temperatures subjected onto the detector located in the MSVV. The vendor, Sorrento Electronics Inc. has designed a single detector which will not fail as a result of high nominal ambient temperatures and cover the PAM Reg. Guide 1.97 required range. The RM has been	Calibration factors for the main steam line RMs have been revised to incorporate the new detectors. Demonstrated accuracy calculation has been revised to demonstrate the RM loops with the new detectors and calibration factors meets the PAM required range and accuracy. The new range still overlaps the SAR Table 7.5-2 PAM required range. The RM EPROM chips are programmed at Sorrento Electrics. The software QA is handled by Sorrento. A software assessment has been performed which concluded that the Sorrento software handling

	reprogrammed for the new detector with a new output range. New RM EPROM chips replaced the existing RM EPROM chips. The EPROMs changed the software program to use the new detector instead of the existing two detector setup. An SE was required because of chapter 11 of the SAR discussing how two detectors are used on the main steam RMs. These portions of the SAR required updating.	complies with SSP-2.12, "Control of Computer Application Software."
M09198	This DCN simplified the existing TDAFW level control system in accordance with INPO recommendations by replacing the automatic control scheme with manual reactor operator control of the turbine speed and the four (turbine flow path) level control valves. The valve's failure position has been changed from fail closed to fail open. This change incorporated four high pressure air bottles to the turbine's level control valves for station blackout considerations, a steam-driven turbine controller setpoint change, the addition of air test connections, and additional emergency battery lighting.	Operation of the TDAFWP and its associated four LCVs have not adversely affected the required performance of the AFW system and is discussed in Westinghouse SECL 93-229 and Westinghouse letter TVA-93-28. The supporting SA/SE discussions, simulator exercises, and Westinghouse analysis demonstrate that the margin of safety provided by the AFW system has not decreased while incorporating hardware and actions necessary to meet the SBO commitments under 10 CFR 50.63. The changes to the level control scheme have in essence yielded increased availability of the AFW LCVs and their respective flow paths to the S/Gs for all events and transients. Using manual operator control over the LCVs and turbine speed is consistent with recovery operations of most domestic utilities and the Westinghouse EOPs. The bases section (text) of SQN Unit 2 TSs required revision to delete the work "automatic" from the S/G LCV discussion since the LCVs will now be manually closed as needed.
M09218	This modification relocated quality-related smoke detectors XS-13-41F (Fire Zone 235) and XS-13-41E (Fire Zone 236) inside the Unit 1 control rod drive equipment room, auxiliary building, el 759. This DCN also added two quality-related cross zone smoke detectors XS-13-26P (Fire Zone 184) and XS-13-26Q (Fire Zone 185) in the 6900V shutdown board room A corridor, auxiliary building, el 734, and two quality-related cross zone smoke detectors XS-13-27P (Fire Zone 186) and XS-13-27Q (Fire Zone 187) in the 6900V shutdown board room B corridor, auxiliary building, el 734. Existing associated cables and conduits were reworked and rerouted as required, and new cables and conduits were added as required in order to make these changes. Some of the cables were partially routed in existing cable trays. These changes were part of the corrective action for SQNFIR920020.	This modification did not involve an unreviewed safety question. An SE was required because SAR Figures 9.5.1-26, 27,and 45 (drawings 47W600-245, 246, and 47W611-13-3) were revised to show the addition of the new smoke detectors. There was no change to the system function or operation as described in the SAR.
M09226	This Unit 2 modification replaced the existing obsolete ice bed temperature monitoring system with a state of the art microprocessor based system. The change to the ice condenser system consisted of replacing the MCR recorder and replacing the existing multiplexing units at the seal table with new scanner units. Additionelly, this modification removes the two obsolete containment moisture recorders and replaced them with a new single three pen recorder. Various changes to Panel 2-M-10 and 2-L-437 were required to accommodate the new hardware. SAR Figure 9.4.8.1 required revision to show the changes to the containment moisture recording loops.	This modification did not change any of the existing failure modes identified, nor did it create any new malfunctions or pathways previously evaluated. This modification did not affect the margin of safety as defined as the basis for any TSs and, therefore, did not constitute a USQ.

M09275	This modification replaced nonsafety-related PCB 5034 from an obsolete Hitachie 500kV power circuit breaker to a ASEA Brown Boveria Type 550 PM SF6 circuit breaker. This breaker connects the 500kV buss 1 with main bank 1, and serves as the Unit 1 generator breaker, bus tie breaker, and can be used as a spare line breaker in the 500kV switchyard. Also included in the DCN was a procedure covering the placement of the new breaker in service and the phasing of all associated relay circuitry. SAR Figure 8.2.1-1 (drawing 45N500) required revision to denote the increase in interrupting capacity of the new breaker. This breaker was replaced during a scheduled Unit 1 refueling outage.	This modification did not involve a USQ. An SE was required because SAR Figure 8.2.1-1 required revision. The existing breaker was rated at 3000A continuous and a 38,000MVA class. The new breaker is rated at 3000A continuous and 50,000A interrupting capability. This is equivalent to a 47,600MVA class. There were no changes to the system design, function, or operation as described in the SAR.
M09326	This modification increases the flow setpoint for flow switch 1-FIS-70-81 from 100 gpm to 156 gpm. The flow switch is used to start the thermal booster pumps on low thermal barrier heat exchanger supply header low flow. The flow switch sends signals to both booster pumps through isolation/separation relays. The setpoint for 1-FS-70-81A was increased from 100 gpm to 156 gpm also. The flow switch feeds an alarm in the MCR to alert operators of low flow in the thermal barrier heat exchanger return header. The setpoint was increased to match that of the booster pumps auto-start setpoint. A time delay relay was added to the auto-start circuit to ensure that the booster pumps do not start prematurely on loss of offsite power. The time delay relay disables the auto-start circuit for 0.70 seconds after power is restored following loss of offsite power. A time delay relay was added to the seal in circuit for the booster pumps. The relay is energized on a start signal and will not drop out until 1.0 seconds after a loss of power to the pumps. The relay provides a seal in during momentary power interruptions caused by board transfers.	This modification did not constitute a USQ. The implementation did not affect any systems required to mitigate or respond to any operational transients or DBAs addressed in Chapter 15 of the SAR. The credible failure modes of the equipment affected by this DCN will not affect the operation of any equipment required to mitigate or respond to any operational transients or DBAs addressed in Chapter 15 of the SAR. This activity did not increase the probability of an accident because none of the equipment required for any DBA was affected by this activity. The probability of occurrence of a malfunction of equipment important to safety was not increased because the ability of the onsite power system to perform its required safety functions was not adversely impacted. This DCN did not affect any equipment required for any DBA; therefore, the limits of 10 CFR 20 and 10 CFR 100 for exposure are maintained. The consequences of an accident or equipment malfunction were not increased. No new failure modes were created by this activity. There were no TS changes, and there was no reduction in the margin of safety.
M09342	The initial advance authorization for this Unit 1 DCN installed a replacement valve for the TDAFWP steam supply MOV 1-FCV-1-17. The replacement valve is similar to the original valve but was supplied by the Anchor/Darling Valve Co. (originally for the Hartsville and Phipps Bend Nuclear Power Plants). This replacement valve is a 4-inch, ASME Class 2, 600# carbon steel gate valve with a pressure seal ring. A replacement pressure seal gasket and spacer ring were installed, and the packing was replaced with an improved packing under another DCN. The in-line length of the valve body for the replacement valve is shorter than the existing valve; therefore, a pipe spool was installed between 1-FCV-1-17 and 18 to makeup the difference. The second advance authorization for this DCN modified the pipe supports on the 4-inch steam supply to the TDAFWP, as well as platform grating. These modifications are in response to PER SQ911514 which identified a discrepancy related to using an incorrect spring load in problem N2-3-7A and another discrepancy for not using revised main steam header movement data. Additionally, the replacement of 1-FCV-1-17 was factored into the reanalysis and	No TSs were impacted by this modification. The changes implemented did not change the availability of the TDAFWP or the required opening/closing time of the steam header isolation valve, 1-FCV-1-17. Qualification calculations and testing ensure the system meets the environmental, seismic, and design requirements. Piping stress problem N2-3-7A was reanalyzed, establishing new stress levels which were found to be within the code allowables and in compliance with the design criteria requirements and SAR commitments. Turbine nozzle loads increased, but were within the allowables after the support modifications were performed. Additionally, thermal movement of the piping increased resulting in an interference with the existing platform grating. Hence platform grating was modified as required to accommodate pipe movement. The affected portion of the system is not required to be operable in accordance with TSs during implementation of the initial and second advance authorizations in modes, 4, 5 or 6, and were not returned to Operations before issuance of the final DCN package. Therefore, there was no impact on the TSs for these features, the change did

	subsequent pipe support modifications. The AFW flow diagram, SAR Figure 10.4.7-12 required revision to show the replacement valve (elimination of the packing leakoff lines) and the additional section of piping between 1-FCV-1-17 and 18. No other SAR changes were required.	not impact nuclear safety, nor did it represent a USQ.
M09347	This modification replaced 16 ERCW and 12 CCS skid mounted maintenance valves which isolate the auxiliary systems on the safety injection, containment spray, and centrifugal charging pumps. The existing valves were removed and replaced with pipe (where other system isolation valves are available) or replaced with valves of different material (stainless steel). The modification was required in response to a SCAR which documented the failure of the existing valves as a result of valve stem corrosion because the valve material was bronze or brass. The failure of the existing valves resulted in flow blockage to the pump auxiliaries and a corresponding unavailability of the pump they served.	All replacement material is ASME III, Class 3 or better, in accordance with the TVA piping class. It does not alter or impact the operation of the safety injection, containment spray, or centrifugal charging pumps in any way. It does not alter or impact the operation of the cooling water systems (ERCW or CCS) that these valves are part of, and it improves the reliability of the systems. No TSs were impacted by this modification. Failure of a freeze plug during installation of this modification would not affect the redundant ERCW train. A failed freeze seal would be isolated by 1-FCV-67-127 as would any other ERCW ventilation cooler supply header or branch line failure. Therefore, this modification did not impact nuclear safety and does not represent a USQ.
M09358	The modifications made under this DCN allow for the addition of a new annunciator on MCR panel 1-M-6 for RWST high/low temperature so that the operators will have a heightened awareness of abnormal temperature conditions.	The existing system operations were not affected by this modification. The additional annunciation point makes the MCR more user friendly. The plant was able to operate without these changes and is still able to operate after these changes were made, but more efficiently. The operators are better able to ascertain plant status and thus make more informed decisions. These changes did not result in any USQs.
M09371	This modification allowed for the addition of a new annunciator on MCR Panel 2-M-6 for RWST high/low temperature so that the operators will have a heightened awareness of abnormal temperature conditions.	The system operations that existed previous to this modification were not affected. The additional annunciation point makes the MCR more user friendly. The plant was able to operate without these changes and is able to operate after these changes were made. The operators are better able to ascertain plant status and thus make more informed decisions. There was no USQ.
M09378	This Unit 2 modification removed computer inverter 2 and replaced it with new computer power supply 2. The new power supply is fed from the TSC inverter through a fused disconnect switch, and the output of the power supply feeds computer distribution panel 2 through another fused disconnect switch. The power supply is provided with a bypass feed from the computer maintenance supply transfer switch through an unfused disconnect switch. The modification was performed to increase the reliability of the power feed to the P250 computer and to reduce the load on the preferred transfer switch. The overcurrent trip setpoints of breaker 12B in 480V auxiliary building common board was increased from 200 amps to 264 amps and the overcurrent trip setpoint of breaker 11A in 480V shutdown board 2A1-A was increased from 200 amps to 231 amps. The loads on the breakers are nonsafety related, nondivisional, non-train as is the common board. The setpoints were increased to allow 250V battery	The computer power supply system is not required for any accident mitigation and is properly isolated electrically and physically from any equipment important to safety and, therefore, cannot increase the probability of an accident previously evaluated in the SAR. The two overcurrent trip setpoints changed by this modification are not required for any accident mitigation. There was no impact on any equipment important to safety. There was no reduction in the margin of safety as described in any TS. There was no USQ.

	charger 2 to go into current limit without tripping the feeder breakers. Administrative controls have been placed on preferred inverter 2 to place it on 250 battery 2 before placing preferred transfer switch 2 in the alternate feed position. Removing the preferred inverter from the preferred transfer switch reduces the load on breaker 11A in 480V shutdown board 2A1-A before it closes which will prevent that breaker from tripping if 250V battery charger 2 goes into current limit subsequent to the breaker closure. The modification did not change any text or tables in the SAR; however, SAR Figure 8.2.1-3 required revision to reflect the removal of the computer inverter as a load on the 250V station battery. No changes to TS were required.	
M09379	This Unit 1 modification removed Computer Inverter 1 and replaced it with new Computer Power Supply 1. The new power supply is fed from the TSC inverter through a fused disconnect switch, and the output of the power supply feeds Computer Distribution Panel 1 through another fused disconnect switch. The power supply is provided with a bypass feed from the Computer Maintenance Supply Transfer Switch through an unfused disconnect switch. The modification was performed to increase the reliability of the power feed to the P250 computer and to reduce the load on the preferred transfer switch. Also, the overcurrent trip setpoint of breaker 3B in 480V auxiliary building common board was increased from 200 amps to 264 amps. The setpoint was increased to allow 250V Battery Charger 1 to go into current limit without tripping the feeder breaker. Administrative controls have been placed on Preferred Inverter 1 to place it on 250 Battery 1 before placing Preferred Transfer Switch 1 in the alternate feed position. Removing the preferred inverter from the preferred transfer switch reduces the load on breaker 11A in 480V S/D Board 1A1-A before its closing which will prevent that breaker from tripping if 250V Battery Charger 1 goes into current limit subsequent to the breaker closure. This modification also increased the overcurrent trip setpoint of breaker 3B in the auxiliary building common board from 200 amps to 264 amps. The overcurrent trip setpoint of breaker 11A in 480V S/D Board 1A1-A and breaker 11A in 480V S/D Board 1B2-B from 200 amps to 231 amps. The increased setpoints allow the associated 250V battery chargers to go into current limit without tripping the breakers.	The computer power supply system is not required for any accident mitigation and is properly isolated electrically and physically from any equipment important to safety. The three overcurrent trip setpoints changed by this modification are not required for any accident mitigation. This modification did not affect any equipment important to safety or any equipment required to mitigate an accident. The failure modes of the computer power supply are such that no credible failure of the power supply could prevent safety-related equipment from performing its intended safety function. There are no TS requirements applicable to the computer power system; therefore, there is no decreese to the margin of safety as defined as the basis for and TS. This modification did not change any text or tables in the SAR; however, SAR figure 8.2.1-3 required revision to reflect the removal of the computer inverter as a load on the 250V station battery. There were no changes to TSs.
M09472	This Unit 1 modification revised the control configuration for the CBPs and the associated suction isolation valve to remove the automatic actuation signals and to provide for operator manual control of each component. This corrected deficiencies that existed in the analog type control arrangement. The SAR required revision to correct the text for the system description in section 10.4.7.1.2 and SAR Figures 10.4.1-2, 1-3, and 7-3 to show the correct configuration.	The modification involved non-safety-related equipment that is not required for TS operation or compliance. The modification was assessed and was determined to be safe in all areas associated with nuclear safety. The SAR impact has been identified and submittals were included as part of the DCN package. There were no additional impacts to prevent this modification from proceeding.

M09478	This Unit 1 modification revised the control configuration for the condensate demineralizer pumps and the associated suction isolation valve to remove the automatic actuation signals and to provide for operator manual control of each component. This corrects deficiencies that exist in the analog type control arrangement that currently exists. The SAR was revised to correct the text for the system description in section 10.4.7.1.2, and SAR Figures 10.4.1-4, 7-4, and 7-6 were revised to show the correct configuration.	The modification involved nonsafety-related equipment that is not required to TS operation or compliance. The modification was assessed and was determined to be safe in all areas associated with nuclear safety. The SAR impact has been identified and submittals were included in the DCN package. There were no additional impacts to prevent this modification from proceeding.
M09505	This modification added a redundant method of ensuring adequate cooling to the CVCS letdown heat exchanger. The CVCS piping downstream of the heat exchanger has not been analyzed for the temperature documented in SQPER920028. The cooling water is supplied by the CCS. The control valve for the CCS cooling water (TCV-70-192) is fail open on loss of air, but a failure in the control circuit (T-62-78) could result in the control valve going closed. The failure of T-62-78 would also result in the loss of annunciator point TA-62-78 (high temperature alarm). This circuit addition utilizes a contact in the existing TIS-62-79 to detect this control circuit failure and operate a new solenoid (TSV-70-192) to cause the TCV to go full open. The existing control for the TCV will not be affected unless a high temperature is detected by the new circuit, indicating a failure in the existing circuit. This modification required the addition of cable, conduit, a junction box, the TSV, interconnecting tubing, and associated hardware to the plant.	This modification required the revision of several SAR figures (9.2.1-6, 9.2.1-9, 9.3.4-8, and 9.3.4-15). These changes were necessary to show the new circuit added by this modification. There was no impact to any TS. There was no USQ.
M09507	The changes included in this modification allowed for the addition of a new redundant control circuit for the control and service air compressors, relocated moisture elements, and lowered the high moisture alarm for control and auxiliary control air to 2 percent RH. Additionally, component cooling fans were added to Panel 0-L-240.	The system operations that existed before the modification were affected by adding features that improve the availability of the compressors by making them less vulnerable to component failures. The plant was able to operate without these changes and continues to operate after the changes have been made, but with greater reliability. The operators are better able to ascertain plant status and thus make more informed decisions. These changes did not result in a USQ.
M09618	This modification replaced existing generator cooling water differential pressure switches 1-PDS-035-120A, 120B, and 120C (now Barton 288) with more reliable S.O.R. Differential Pressure Switches, Model # 101-N3-K45-N4-C1A-RR. The S.O.R. switches maintain their calibrated accuracy for a greater period of time. 1-PDS-035-120A (low) and 1-PDS-035-120C (high) differential pressure switches actuate and initialize Alarm PDA-035-120A and PDA-035-120C (accordingly) on local Panel 1-L-39 when the differential pressure falls below or increases above the design setpoints. 1-PDS-035-120B when actuated as a result of a Low-Low differential pressure (and generator loading greater than 15 percent) will initiate a turbine trip and annunciate Alarm PD/TA-035-104 on 1-M-2 in the MCR. The replacement of 1-PDS-035-120B with the S.O.R. differential pressure switch	The equipment involved in this modification is not a direct cause for any accident considered with the design basis. This system is not important to safety; however, a trip does challenge safety systems in that a turbine trip will cause a reactor trip if it occurs at a greater than 50 percent load. The new switches are more reliable and make spurious trips unlikely. This change did not degrade the performance of any of the three fission product barriers. The control system for these switches is not utilized to mitigate accidents, and the change did not create an accident of a different type. The margin of safety defined in the basis of TSs was reviewed, and there are no TSs related to this installation. Therefore, the margin of safety was not reduced by this modification.

	deleted the need of the interposing relay and circuit resistor show in SAR Figure 10.2.2-1. The deletion of this relay and resistor from the SAR figure created the need for a safety evaluation.	
M09627	The flow loops for RHR/SIS flow had become unreliable as a result of calibration drift caused by obsolete and outdated equipment. Maintenance costs to properly maintain the loops had reached an unacceptable level because of calibration frequency increases and repair cost increases. This Unit 1 modification replaced the loop components associated with RHR/SIS flow. Additionally, 1-FM-63-91C and 92C square root converters were no longer required because the replacement transmitters convert the flow input to a linear output. They were removed from service and returned to power stores. The loops were converted from 10-50 mA to 4-20 mA to comply with industry standards. SAR Figure 6.3.2-2 (drawing 47W610-63-2) required revision to reflect the new configuration of the loops. SAR Table 7.5-2 required revision to reflect the new maximum 110 percent design flow rate for RHR flow to the cold legs. Calculation SQN-SQS4-0072 documents that the maximum flow rate is less than the figure in the SAR (for PAM).	This modification only replaced the devices; the loop intended function and design were not altered. Therefore, the previous SAR evaluations were not affected. The compliance and TS requirements remain the same. This modification was implemented without violating any existing plant requirements. The monitoring function for RHR/SIS flow indication is enhanced by the addition of more accurate and reliable components. The modification retains power separation and single failure criteria. The modification did not reduce the margin of safety as defined in the basis for any TS. This modification did not involve a USQ.
M09628	The flow loops for RHR/SIS flow are unreliable as a result of calibration drift caused by obsolete and outdated equipment. Maintenance costs to properly maintain the loops has reached an unacceptable level as a result of calibration frequency increases and repair cost increases. This Unit 2 modification replaced the loop components associated with RHR/SIS flow. Additionally, 2-FM-63-91C and 92C square root converters are not required because the replacement transmitters convert the flow input to a linear output. They have been removed from service and returned to Power Stores. The loops have been converted from 10-50 mA to 4-20 mA to comply with industry standards. SAR Figure 6.3.2-2 (drawing 47W611-63-2) required revision to reflect the new configuration of the loops. SAR Table 7.5-2 required revision to reflect the new maximum 110 percent design flow rate for RHR flow to the cold legs.	The equipment involved is quality related, seismic 1L, and compliance and TS related. Since this modification only replaced the devices, the loop intended function and design are not altered; therefore, the previous SAR evaluations are not affected. Additionally, the compliance and TS requirements remain the same. This modification was implemented without violation of any existing plant requirements. There was no reduction in any TS margin of safety, and there was no USQ.
M09755	The Unit 1 modifications provided by this DCN consisted of a change in setpoint of the MDAFWPs pressure switches which control automatic switchover to the ERCW and a revision to the logic for AFW pump suction switchover to ERCW. The setpoint change was made to provide an allowance in the setpoint to ensure that the formation of air entraining vortices will not occur before the transfer of suction to the ERCW system. The setpoint change was made in the conservative direction (increased) and, therefore, had no impact on the ability to switchover upon failure of the nonseismically designed suction line located in the turbine building. The change in switchover logic was made to ensure that a reliable source of water is available before start of the MDAFWPs in the event of a LOOP and a seismically induced failure of the AFW pump suction lines. SAR	The conclusion of this SE indicates that there was no impact on nuclear safety and that a USQ did not exist. This conclusion was based on the conservative direction of the setpoint change and the conservetive nature of the logic modification. This modification increased the reliability of the MDAFWPs and, therefore, improved nuclear safety.

	Figures 9.2.2-19, 10.4.7-7 and 10.4.7-10 required revision as a result of the modification to the switchover logic. TS Table 3.3-4 was revised to be consistent with this setpoint change to ensure that the design basis documentation and the TS are in agreement. Change to this TS was not required in order to implement the scope of this modification.	
M09939	An enclosed manual transfer switch and receptacle were added to the 480V power circuits of CRDM cooler fans 2B-B, 2C-A, and 2D-B to provide power for temporary nonsafety-related loads inside the lower containment during outages (one transfer switch and one receptacle per fan). The new receptacle enclosures consist of aluminum material. SAR Figures 8.3.1-14, 8.3.1-15, and 8.3.1-16 (drawings 1,2-45N749-2, 3, and 4, respectively) required revision to show the new transfer switches and outage-related receptacles as being part of the 480V power circuits for these nonsafety-related fans.	The new nonsafety-related transfer switches and receptacles are seismically qualified and will only be used when Unit 2 is in operational modes 5 or 6. The CRDM fans are not needed during operational modes 5 or 6 and are not required for any DBAs or anticipated operational transients. The addition of aluminum receptacle enclosures does not cause the LOCA hydrogen generation limit inside containment to be exceeded. The affected 480V CRDM fan power circuits are protected by existing circuit breakers and fuses, and the temporary loads are controlled in accordance with an existing approved site procedure. There was no USQ associated with this modification.
M09944	This change raised the setpoint for pressure switches 1-PS-63-180A and 1-PS-63-180B. These switches only function to provide MCR annunciation to warn against high RHR pump suction pressure. Therefore, this alarm feature is not safety related. The existing setpoint of 380 psig had resulted in unanticipated nuisance alarms as documented in SQPER930066. TVA Calculation SQN-074-D053 was revised establishing the new setpoint value for the switches at 405 psig. The existing setpoint of 380 psig was specified in SAR subsection 7.6.2.1. CFSAR-EEB-93-00 was submitted to support this modification.	The overpressurization alarm is not required for safe shutdown of the plant. The RHR system is protected from overpressurization by a relief valve which is sized to relieve the combined flow of all the charging pumps at the relief valve set pressure. The valve setpoint is 450 psig. This change was properly analyzed in the context of DCN M09881 and had no impact on plant safety. There was no USQ.
M10001	This modification abandoned in place the reactor coolant letdown liquid radiation monitor, 1-RM-90-104B, removed a section and capped both the inlet and outlet tubing lines for the monitor sample, de-terminated and abandoned the cables associated with the components of 1-R-90-104, removed 1-RR-90-104 from 0-M-12, removed 1-RM-90-104A and RI-90-104 from 0-M-12, patched the holes in 0-M-12 made by the removal of 1-RR-90-104 and 100 and installed a blank plate on the panel where 1-RM-90-104A and RI-90-104 were removed, removed 1-L-266 (which resulted in the removal of 1-LS-90-104, local alarm and indicating lights), and disconnected cables from the TSC computer point R9013 (removed this point from scan and designated it as "spare"). This monitor is not required for TS compliance and is not safety related. The monitor had begun to experience maintenance problems after the first 100 percent power run. Continued use of the monitor was no longer practical from a maintenance and ALARA standpoint. SAR text, tables and figures required revision to delete any reference to the reactor coolant letdown radiation monitor for Unit 1.	TSs for primary coolant specific activity, monitored once per 72 hour period, and Isotopic Analysis for Dose Equivalent I-131 concentration, monitored once each 14 days, are met by adherence to sampling requirements established in SI-50, "72-Hour Chemistry Requirements." If the coolant gross activity administrative limit is exceeded, a TS compliance verification is performed. If either dose equivalent I-131 or gross activity limits are exceeded, action is taken to initiate SI-53, "Specific Iodine Isotopic Activity Concentration and/or DEI-131 Determination," which establishes and documents the radiochemical analysis required in the TS. Acceptance criteria in SI-53 section 4.0 is below the assumed fuel failure used in SAR Chapter 15 analysis. This monitor and associated components are not required for TS compliance and are not safety related. TS 3/4.4.8, Figure 3.4-1, and Table 4.4-4 cover the limits required to be maintained. These limits are monitored by chemical sample procedures and not by the monitor. TSs remain unaffected.

M10011	This DCN modified the turbine trip circuitry. The turbine trip currently generated automatically (after a ten second delay) by a low-low lube oil level signal was deleted. This turbine trip is in addition to the turbine trip required by the turbine manufacturer (Westinghouse). This DCN also replaced the existing 250 VDC Westinghouse timer/relay combinations with Agastat integral time delay relays. These relays are in the turbine trip and the generator trip input circuits. They are fed from the 250 VDC battery boards. The relays are located in the nonsafety-related portion of the turbine trip buses. The relays provide annunciation, turbine trips, and generator trips based on inputs from low lube oil level switch, generator cooling failure switches, and interceptor (low pressure turbine isolation) valves closing. During testing, some of the existing timers were found to be rated for only 125 VDC. The 250 VDC timer is no longer available from Westinghouse and so all 250 VDC timer/relay combinations in these circuits were replaced with Agastat time delay relays, which are currently in general production. The time delay settings are not affected by the replacement of the relays.	This modification required the revision of SAR Figure 10.2.2-1. The turbine trip deleted was a nonsafety-related trip that was in addition to the turbine trips required by the manufacturer. The turbine is still protected by a diverse trip (low lube oil pressure). These changes also show the new Agastat time delay relay (with its form 'C' contacts) added by this modification. No TSs were impacted by this modification.
M10074	This design change modified the overpressure protection bypass line at containment penetrations x-57, 59, 61, and 63 by replacing these lines with stainless steel piping and valves and by relocating the connections to near the top of the main ERCW line. This modification is intended to prevent a potential failure mechanism at the valves caused by corrosion and sediment deposition. This modification revised SAR Figure 9.2.2-3.	The modification to the ERCW bypass piping did not increase the probability of an accident or the occurrence of a malfunction of equipment. It did not increase the consequences of an accident or of a malfunction of equipment nor did it increase the possibility of an accident or malfunction of a different type. There was no reduction in the margin of safety as defined in the TSs. This conclusion is based on the improvement in function which is anticipated to occur by the use of stainless steel for the piping and components and by the relocation of the line from the bottom of the ERCW penetration. This modification improved the capability of the bypass line to perform its overpressure protection and containment isolation function.
M10119	Existing obsolete Barton transmitter 2-LT-77-1 was replaced with a new Rosemount transmitter to be relocated to Panel 2-L-190 outside the crane wall. The modification required deleting the existing transmitter mounted at the RCDT and reworking and routing the existing sense lines through the crane wall to the 2-L-190 panel. Existing cable was rerouted and reused to supply power to the new transmitter. A new sight glass was mounted on the outside surface of the crane wall in the vicinity of the RCDT. The sight glass is not to be used as a continuous monitoring device and isolation valves shall be normally closed. This modification was intended to improve maintenance and reduce personnel radiological exposure. Implementation of the modification did not impact the operation or functional control of the RCDT circuits. No physical change to the temperature loop was made. Appropriate SAR changes were submitted.	The replacement/relocation of the nonsafety RCDT level transmitter did not increase the possibility of occurrence or consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. This modification did not create a possibility for an accident or malfunction of a different type than previously evaluated in the SAR. The RCDT pumps and controls serve no safety functions and the revision to the setpoints did not reduce the margin of safety as defined in the basis for the TSs. There was no USQ.

M10206	This modification replaced the existing obsolete Barton transmitter 1-LT-77-1 with a new Rosemount transmitter to be relocated to panel 1-L-190 outside the crane wall. This required deleting the existing transmitter mounted at the RCDT and reworking and routing the existing sense lines through the crane wall to the 1-L-190 panel. Existing cable was rerouted and reused to supply power to the new transmitter at panel 1-L-190. In addition, a sight glass was mounted on the outside surface of the crane wall in the vicinity of the RCDT. The sight glass has limited use and will be used to indicate RCDT levels during maintenance procedures. The sight glass isolation valves shall be normally closed. This modification is intended to imp e maintenance and to reduce personnel radiological exposure. There are no physical changes to setpoints. SAR Table 11.2.3-2 required a correction to bring it into agreement with existing design documentation. Implementation of this modification did not impact the operation of the control circuit. The existing control functions were unchanged. SAR Figure 11.2.2-1 (drawing 47W830-1) required revision to correct an incorrect instrument symbol. The drawing showed a temperature transmitter and was revised to denote a temperature element instead. No physical change to the temperature loop was made.	The replacement of the existing ITT Barton level transmitter with a Rosemount transmitter did not change the function of the control circuit. The setpoint changes are for pump start and stop controls. The pump/control circuit does not perform any safety-related function, and the circuits are not required to function to mitigate any accident. The setpoint changes improve pump operation and eliminate nuisance alarms as a result of pump start and high level alarm being set too close together. The setpoint changes bring the SAR table into agreement with the calculation SQN-EEB-PL&S document. The added sight glass is protected by field installed isolation valves. It is manufactured to withstand up to 200psi with ball checks that will seat in the event of glass breakage thereby shutting off the escape of fluid. The figure change to correct the instrument symbol did not change the instrument loop functions.
M10303	In early 1993, inspections of the Unit 1 and 2 S/G FW nozzle transition pieces found cracking after less than 1 year of service. This Unit 2 change replaced the existing FW nozzle elbow and transition piece with a Westinghouse custom designed elbow with an integral protective liner for the purpose of mitigating thermal fatigue cracking. The change has been evaluated for heatup and cooldown transients/accidents in SAR Chapter 15 and was found to have negligible impact.	This modification did not increase the probability of an accident previously evaluated in the SAR because the design and analysis results indicated that the new assembly meets ASME Code stress and fatigue requirements while protecting the nozzle-to-pipe weld; thereby representing a lesser potential for thermal fatigue cracking. The addition of the thermal liners actually decreases the probability of occurrence of a malfunction because it reduces the probability of nozzle cracking which could lead to a feedline leak or rupture. The addition of the FW nozzle thermal liners did not affect assumptions or conclusions in the SAR analyses. Increased pressure drop of the thermal liner actually retards the depressurization rate, making the SAR analysis more conservatiye for feedline or steamline breaks while not interfering significantly with AFW flow. Postulated licensing basis transients with the replacement elbow would have the same consequences as a malfunction with the original component, and the thermal liner will not restrict sufficient AFW from being supplied to the S/Gs.
M10348	This modification returned to service the automatic control circuit of temperature control valves 2-TCV-67-84, 92, 100, and 108 that were deleted by a previous design change. The solenoid valve, conax seal, terminal board, junction box and the cables providing power to the solenoid circuits are certified to EQ 50.49, 1E classification by this DCN. The control circuit of the solenoid valve is wired to provide operations the ability to OPEN the TCVs from either the MCR or the auxiliary control room dependent on the position of the transfer switch in the auxiliary control room. This modification	This modification did not increase the probability of an accident previously evaluated in the SAR and the safety function of the TCVs was not changed. The TCVs would either fail to the open position or can be switched to the open position as desired by operation during or after an accident. The failed OPEN position of the TCVs provides maximum cooling for the lower compartment. The modification ensures that the TCVs can perform their intended design function. There was no USQ.

	replaced the existing Masoneilan Model 8012 valve positioners with like-for-like new positioners. Yokogawa YS-170 temperature indicating controllers were installed on local panel 2-L-26A and D to control the ERCW flow through the LCCs, providing automatic temperature control of lower containment. Impacted SAR sections and figures required updating to reflect the design changes, and SAR Section 6.3 required updating to show these valves added to the ASME Section XI valve test program.	
M10390	Nine 1/4-inch instrument isolation valves on the injection water lines which serve the Unit 1 CBPs A, B, and C and the No. 3 HDTP C were installed without proper documentation. Existing valves also had parts which did not meet the required temperature conditions. This modification replaced existing valves with documented valves suitable to the temperatures to be encountered. This DCN performed a drawing review for correct details of valve, pipe, and tubing installation. An SE was required because SAR Figure 10.4.7.2 required revision. This revision shows the instrument root valves for the injection water lines of the CBPs. These valves were not previously shown. There was no other SAR impact.	The SE performed for this modification concluded that there were no unreviewed safety questions associated with this change. The valves are not required for any accident and do not support the functions of any equipment that is required for accident support. The TSs and the text of the SAR do not mention these valves. These valves can fail and cause failure of the injection water system and not create any accident not already analyzed. These valves are not a part of the basis for any margin of safety.
M10398	Valves were installed in the BLW and MBCW supply lines and suction lines to the EBLW pump. This provides a means of isolating the BLW and MBCW supply lines from the current BLW supply lines and, therefore, facilitates the upgrade of this system. Sufficient lengths of pipe plus fittings were provided to allow installation of 1 1/2-inch, 3-inch, and 4-inch valves for a total of six (6) valves. Upon implementation of the DCN, the upgrade of the Unit 1 BLW and MBCW was able to proceed with the current BLW and MBCW system and CCW operational. There were no SAR text changes resulting from this modification. SAR Figure 9.5.1-12 required update to reflect the new configuration.	This design change added valves of compatible material with the piping in which it was installed and did not alter or impact the operation of the CCW pumps in any way. It did not alter or impact the operation of the RSW, FP, and CCW systems that these components are part of, and it improves the reliability of these systems. The design of the valve and piping is equal or superior to the original. Therefore, this modification did not reduce the margin of safety as defined in the bases for any TS and did not involve a USQ.
M10404	This Unit 2 modification replaced obsolete controllers for the main steam dump valves. The operators have the same controls as before, but there is an added benefit in that process pressure is now indicated on a larger meter than was used before. No functions have been added or taken away. The drawing has changed to reflect the controller deletion and the modifier addition. This drawing is SAR Figure 10.3.2-3. This is the only impact on the SAR.	The function and the operation of this system were not changed by this modification. This equipment is not important to safety. Therefore, any accidents or transients analyzed for this system were unaffected, and the consequences of any previously analyzed accident have not been increased. No new accidents were created. There was no impact on the margin of safety. The new equipment is more reliable and spare parts are available for this equipment unlike the previously installed equipment. Replacement of this equipment should eliminate inadvertent cooldowns as a result of failure of this equipment. There was no USQ.
M10408	A crossover pipe and isolation valve were installed on the condensate demineralizer receiving (cation) tank drain to reduce the amount of waste materials and to assist Operations in the chemical regeneration process. A portion of the poly-lined piping was	This modification allows Operations to visually inspect the nozzles for uniformity and to determine if the nozzles require cleaning. The system is not a safety-related system, and its operation does not affect or impact any safety-related systems. The design of the

	replaced with rubber-lined piping to facilitate the addition of the new crossover piping. This change required a revision of the SAR Figure 10.4.6-1 to show the new flow path.	new valve and piping is equal or superior to the original design and does not affect the design basis of the system or its operation. The modification, therefore, did not involve a USQ.
M10425	A leaking drain valve on the MDAFWP 1A-A was replaced with a comparable valve which was available at Sequoyah. As a result of this replacement, SAR Figure 10.4.7-12 required revision to show a 3/4-inch diameter valve instead of a 1-inch diameter valve.	The design of the replacement valve and piping is equal or superior to the original. The modification did not involve a USQ. The safety evaluation was required because the SAR figure required revision.
M10523	Work performed by this DCN modified the Unit 2 turbine trip circuitry. The turbine trip signal currently generated automatically (after a 10 second delay) by a low-low lube oil level signal has been deleted. This turbine trip was in addition to the turbine trips required by the manufacturer (Westinghouse). The turbine is still protected by a diverse trip (low lube oil pressure). The first out annunciator window has been deleted and the low-low lube oil level alarm has been moved to another window. The P250 computer point software description has been revised to delete the reference to the turbine trip for this signal. SAR Figure 10.2.2-1 (CCD: 1,2-45N647-2) required revision to reflect the deletion of the turbine trip signal from Relay 2-02-047-CLOGR.	The deletion of the turbine trip due to low-low lube oil level did not increase the probability of a turbine trip because the SAR accident analysis does not consider the initiating event of the turbine/generator trip, only the trip itself. The nonsafety-related portions of the circuit affected by this modification maintain all separation and isolation requirements. The accident analysis associated with a turbine/generator trip remains unchanged. The modification did not reduce the margin of safety as defined as the basis for any TS because individual turbine/generator trips are not addressed in the TSs.
M10585	This Unit 2 modification replaced obsolete controllers on MCR Panel 2-M-2, replaced noncompatible I/P's remote from the control valves, and the activation of new loop power supplies on 2-R-124. This change resulted in a change to SAR Figure 10.4.1-1 to show the new power supply configuration.	The components replaced, relocated, and/or utilized are all non-safety related. The function of the components remained unchanged. There was no increase in the probability of or consequences of an accident previously evaluated. No new accident of a different type was created. There was no reduction in the margin of safety. There was no USQ.
M10903	A section of bus located in the 161 kV switchyard was removed from the J-line bus support in Bay 20, north to the motor-operated disconnect switch 1009 to support DCN M10830 which installed a new 161kV capacitor bank. Implementation of this change required an outage on Bus 2, Section 3. The only impact to the SAR was a change to Figure 8.2.1-1.	The conclusion of the safety evaluation indicated that there was no impact to nuclear safety and that a USQ did not exist. The circuit is not a 1E circuit and the motor-operated disconnect was spared out and abandoned in place. The section of bus removed in Bay 20 between the J-line bus support and the motor-operated disconnect provide further isolation of this unused circuit. This circuit is non-TS related.
R09839	This modification installed an isolation valve on the potable water system to allow isolation of yard piping leaks. This allows repair of the leaks while still maintaining water to the MWTP. The potable water system is TVA Class H and serves no safety or quality related function. The valve was installed in the nonseismic turbine building. A change to the SAR was required since the valve installed in bronze and SAR Section 9.2.4.1.2 specifically called for iron valves to be installed on 3-inch and under potable water system valves.	The potable water system in a nonsafety-related TVA Class H system. The SAR change submitted deleted extraneous information regarding material and installation requirements for the potable water system. Material and installation requirements are shown on appropriate design output drawings; therefore, this information was not required in the SAR.

R10149	This Unit 2 DCN affected the nonsafety-related heater drains and vents sytem and the sampling system. This DCN changes an under pressure rated bronze sampling connection valve at the No. 7 heater drain pumps to a carbon steel valve with an acceptable pressure rating and documented the change of the sampling connection from the suction to the discharge of the No. 7 heater drain pumps. SAR Figure 10.4.9-2 and SAR Table 9.3.2-1 Sheet 5 were affected by this change.	The heater drains and vents system is a nonsafety-related system located in the turbine building and does not impact any safety function. The change of pressure in the sampling system has been evaluated, and all components meet or exceed the higher pressure requirement.
S06690	This DCN provided criteria for dredging the ERCW intake channel and steel liner intakes. The criteria consist of minimum river elevation, channel width and dredging requirements. These changes required revision of SAR Figures 3.8.4-55, 3.8.4-49, 1.2.3-22, 9.2.2-1, and 9.2.2-5, text Sections 2.4.11 and 9.2.5, and TS 3/4.7.5. The activity addressed a condition where additional water sources from upstream TVA reservoirs may be necessary to ensure SQN ultimate heat sink is maintained. This is acceptable since SAR 2.4.11.1, Low Flow in Rivers and Streams, addresses this specific event.	Providing minimum river elevation, channel and dredging requirements ensures adequate water is available for the ERCW pumps. There was no USQ involved with this activity.
S08723	CAQ SQP890606PER was written to identify instrument and 480V breaker settings placed on power single line drawings. As stated in the CAQ, "the normal practice is to show setpoints on 47B601-series dwgs. (I-tabs, or breaker setting sheets, etc.)." Identifying these setpoints on just one drawing series precludes drawing errors when these setpoints are revised and not all drawings are updated. The CAQ also stated that some of these drawings are incorrectly identified as SAR figures on the drawings. This DCN removed the above discussed erroneous SAR identifications and redundant setpoints on the drawings by making the breaker setting sheets and I-tabs the document of record for the 480V breakers and instruments, respectively. This was a documentation change only; no field work was required. DCN S08723 also added a note to single line drawing 45W74904 to prohibit the use of breaker compartment 2D on 480V shutdown board 1B2-2 for plant loads. The addition of this note was a documentation only revision and did not impact system operation or current plant configuration.	This DCN removed redundant setpoints and erroneous SAR identifications on drawings. This was a documentation change only; no field work was required. No physical changes were made by this DCN, and no equipment classification changes were made. This change had no impact on the operating plant or TS.
S08851	This DCN resolved the inconsistencies among the environmental drawings, the conduit and grounding drawings, and the associated supporting calculations. Also, this DCN corrected related calculations D245-DS199RP and SQN-SBMG-1 that use the affected environmental data. Documentation inconsistencies concerning flood levels reported in SQSCA90019 have been corrected by this change package. The RHR rooms, CVCS letdown heat exchanger rooms, and the el 653 pipe chase rooms have been qualified for higher flood levels. No plant physical changes were required by this DCN. The impact to the SAR for this change package was limited to two items - revising the definition of the term "live load" and reflecting the results of	This DCN provided the required documentation to correct inconsistencies between the various calculations, criteria, and instructions pertaining to flood levels in the RHR rooms, CVC letdown heat exchanger rooms, and the el 653 pipe chase rooms. There were no physical modifications required to the plant as a result of this design change. Revising the SAR to update the definition of live load to be consistent with the NRC's SRP section 3.8 provided a method in which to qualify the above rooms to meet the higher stresses caused by the increased flood levels to 48 inches. The SAR change involving the passive failure sumps in the RHR pump rooms reflect the higher flooding levels that are expected as called out

	calculation SQN-SQS4-0056 which demonstrated that the dropout panels in the RHR pump rooms will fail when submerged to 48 inches thereby protecting all equipment above that level.	in this change. There are no restraints or additional requirements placed on the plant as a result of this design change. There was no USQ.
S09034	This DCN deleted the requirement that valves 1-VLV-67-540A, 540B, 2-VLV-67-540A, and 540B are required to be in the locked closed position.	Calculation OSG92008 R0 determined that the highest flow through any of the four hypochlorite treatment circulation lines that are isolated by these valves was 72 gpm. The flow data for the last performance of the ERCW flow balance was reviewed, and the loss of 72 gpm from any ERCW main supply header was well within the margin of flow from the components it supplies. Therefore, there would be no adverse affect on the ERCW system if any of these valves were open. Also, the AFW system would not be adversely affected because these lines would add additional supply to the MDAFWPs if the pumps were supplied by the ERCW system.
S09057	The permanent inlet and outlet reactor cavity inspection covers did not provide an adequate seal during refueling because of plate warpage. This DCN allows the temporary 1/2 inch SS nozzle covers to be installed on a permanent basis during normal operation and refueling. As such, the nozzle covers can be installed and fastened to the refueling canal floor in a manner that would not have to be changed during a refueling outage or for any mode of plant operation. The covers would have to be removed only for ISI nozzle inspections (10 year interval) or to replace gaskets. This DCN made other minor drawing changes and also specified new gasket material for the nozzle covers, drain covers, and neutron detector tube covers and acceptable replacement intervals for the gaskets. This change reduces outage time and personnel dose. A change to the SAR was submitted as part of this DCN to reflect the use of the leak before break analysis, thereby allowing the nozzle covers to remain bolted down during normal operation.	The Appendix G justifications and the evaluation documents the acceptability of this activity. The temporary nozzle covers are acceptable to withstand a seismic event and are adequately sized to maintain head pressure during refueling. The new gasket material specified is QA Level I material and meets the environmental and sealing requirements for this application. The activity does not create or increase the chances of system or equipment failure. There are no new or different failure modes created as a result of this activity.
S09286	This change allows the field to use adjustable rail clips on the bridge rail of the polar crane. This change does not affect the SAR directly, but involves a licensing based document. NRC was notified by memorandum that the polar cranes were in compliance with CMAA-70-1975, section 1.4 (Runway), which requires the crane runway to be within a tolerance of ± 1/8 inch. CMAA-70 was written with a straight runway in mind, and it was determined that as long as the crane is not "binding" on the circular runway, it is not exerting any undesirable loading on the polar crane and meets the intent of the tolerance specified in CMAA-70-1975.	The polar cranes are seismically qualified regardless of any change performed on the bridge rails because they rely on girder-to-wall bumpers for seismic qualification. As long as the crane is not "binding" on the runway, no undesirable loads are being exerted on the polar crane. Calculation SQNR-7 has determined that the new bridge rail clips are adequate with regards to the original design loads. As long as the polar crane is seismically qualified, it cannot increase the probability of an accident or occurrence of a malfunction of equipment important to safety. It also cannot increase the consequences of an accident or a malfunction of equipment. No new accidents or malfunctions of a different type than evaluated in the SAR are created. The polar crane does not affect any TSs; therefore, no margins of safety are affected.

S09523	This DCN revised design documentation to reclassify (in accordance with 10 CFR 50, Reg Guide 1.26, ANS N18.2 - Draft 1970, and SQN Design Criteria SQN-DC-V-3.0) portions of the Bottom-Mounted Instrument system. The SA/SE for the DCN addressed the reclassification in accordance with S09523 and clarified the code classification of the seal table fittings to address the situation identified in Engineering Evaluation/JCO No. SQJCO-92-005, Rev 0. This change did impact the SAR. SAR Table 5.2.3-1, sheet 1, identifies TVA Class A Reactor Coolant Pressure Boundary Materials. Included is the entry "Instrument Tube Appurtenances - Lower Head." This entry was revised to clarify that the guide tubes and seal table mechanical components of the bottom-mounted instrument system are TVA Class A, ASME Class 1, and that the flux thimbles are classified as TVA Class B, ASME Class 2.	This "documentation only" change was limited in scope and impact to a simple reclassification of instrument tubing to reflect the correct TVA safety class designation based on the function and design of the tubing. No field changes (i.e., hardware) were involved. No functional changes were made to the system. This change did not decrease any design requirements associated with the integrity of the reactor coolant pressure boundary. The resulting classifications of mechanical components of the bottom-mounted instrument system are consistent with 10 CFR 50 and TVA design criteria for classification of mechanical components. The installed tubing currently satisfies the new (i.e., correct) ANS classification.
S09675	Calculation SQN-70-D053-MCG-RSR-113087 R2 has verified that under certain normal operating conditions the thermal barrier booster pump discharge pressure may exceed the CCS design pressure. SQPER920288 was written to document this condition. Under this DCN, the portion of piping downstream of the booster pumps up to the RCP thermal barrier cooling water inlet piping (which is designed for 2484 psig) was evaluated for design pressure of 200 psig. SAR Section 9.2.1.2 reflects the CCS design pressure requirements. This section required revision to reflect the increase in design pressure of the thermal barrier booster pump discharge piping. In addition, the flow diagrams (SAR Figures 9.2.1-2 & 3) were revised to show the pressure class break; thus, the drawings need to be replaced at the next SAR figures update.	The calculation verified that under certain normal operating conditions the thermal barrier booster pump discharge pressure may exceed the CCS design pressure. This condition exists in modes where there is a low CCS flow. The low flow in turn increases the suction pressure at the booster pump as a result of the reduced pressure drop through the CCS. The pressure head differential added by the booster pump in conjunction with the piping elevation difference induced head combine for pressures in excess of the original design pressure of 150 psig. The CCS piping minimum wall thickness for the various pipe sizes located with the identified portion of piping were evaluated, and results showed that the minimum pipe wall thickness requirements were met for all piping when evaluated for the increased design pressure of 200 psig. To address the acceptability of the valves, instruments, fittings, flanges, etc. associated with the identified portion of piping, calculation SQN-SQS2-0144 R0 was generated, and the evaluations performed in this calculation concluded that all associated components were acceptable for the higher design pressure of 200 psig. Calculations for seismic qualification of the piping were also performed. The results and conclusions of the calculations support the fact than no piping, valve instrument, fitting, flange, etc. or associated support requires replacement in the field; thus, no physical modifications were necessary under this DCN. It was a paper change only.
S09767	DD 92D06479 documented that valves 0-77-882C, 1-77-860, and 2-77-860 are shown on flow diagram 1,2-47W830-6 as "normally closed." Although flow prints are not required to identify specific operational valve alignments, it is the usual practice to identify the normal "in service" alignment for a given system. DCN S09767 revised 1,2-47W830-6 to show these valves as "normally open." This change results in a flow diagram 1,2-47W830-6 depicting the normal "in service" nitrogen supply flowpath. These valves are part of the	This change was limited to showing nitrogen supply flowpath valves as "normally open." This change resulted in flow diagram 1,2-47W830-6 (SAR Figure 11.2.2-5) depicting the normal "in service" alignment of the nitrogen supply flowpath. These valves are part of the storage supply flowpath and are normally open such that nitrogen makeup occurs automatically upon low pressure in the 2400 psi common supply header. The resulting flow alignment is consistent with the SAR description of the nitrogen system. Other than showing valves

	storage supply flowpath and are normally open such that nitrogen makeup occurs automaticall, pon low pressure in the 240 psi common supply header. SAR Section 9.5.9.2 discusses the nitrogen system.	0-77-882C, 1-77-860, and 2-77-860 as "normally open," this change did not invalidate or change any information contained in the SAR.
S10092	This DCN performed "documentation only" changes to various design input and output documents to address changes in the AFW system's design basis flow requirements. Previously, the SAR and other design documents indicated that for the events which impose the most stringent flow demands on the AFW system, a total of at least 440 gpm must be delivered within one minute to at least two intact (non-faulted) S/Gs. Subsequently, it was determined that there are events which impose additional flow requirements on the AFW system. The non-LOCA events which assume minimum AFW flow rates are: (1)loss of normal feedwater, (2)loss of offsite power to the station auxiliaries, and (3)major rupture of a main feedwater pipe. Additionally, the only LOCA analysis which models minimum AFW flows is the small break LOCA.	The operation of the AFW system is not adversely affected by this documentation change. This change did not involve or require a physical or operational change to the AFW system of any other system. The changes in the minimum required AFW flow rates for the various accident and single failure combinations are within the capabilities of the current AFW system and are ensured by system surveillance testing. No new event initiator has been created, nor has any hardware been changed. All acceptance criteria for the SAR Chapter 15 analyses which impose minimum AFW flow requirements have been met by the revised flow rate requirements. The margin of safety as defined in the basis for any TS has not been reduced.
S10139	This DCN performed "documentation only" changes that were made to calculations and setpoint scaling documents. The changes were made as part of a response to SQ910274PER and SQ930427PER. The PERs identified discrepancies in the design criteria, SAR, and TSs with regard to the AFW system.	Westinghouse performed a safety evaluation of the AFW system to consider the results of the models they developed for the revised flowrates. They determined that revisions to the surveillance tests were required to verify that the MDAFWPs can provide 410 gpm and the TDAFWP can provide 660 gpm at 1100 psia. This is consistent with the licensing basis safety analysis.
S10263	This is a documentation only change to correct discrepancies between design drawings and the as-constructed plant configuration which were identified and evaluated on Drawing Deviation 93DD6831. Drawings (including SAR Figure 10.4.2.2, drawing 47W611-2-1) were revised to reflect the correct control circuit wiring for FCV-2-205, 210, 211, and 216 (MFW pump turbine condenser isolation valves). SAR Section 10.4.7.1.3 was revised to indicate that a trip of both MFW pumps will result in the automatic isolation of one MFW pump condenser, not both condensers as previously stated. The devices affected by this change provide no safety-related function and no physical changes to the facility resulted from this DCN.	The discrepancies between design drawings and the as-constructed plant configuration addressed by this DCN were evaluated by Site Engineering on Drawing Deviation 93DD6831. This evaluation concluded that the as-constructed configurations were correct and that the subject drawings should be revised to reflect these configurations. Other minor drawing errors were discovered during this evaluation and were also corrected by this change. Drawings were revised to illustrate that following a MFW pump trip, the MFW pump turbine condenser isolation valves for the subject condenser will close automatically, provided the other MFW pump is not tripped. This logic will not allow both MFW pump turbine condensers to be automatically isolated and thus ensures the availability of a condensate flow path following a trip of both MFW pumps. The plant was configured in this manner by L-DCR 1503; however, design drawings were not updated to reflect this change. The basis for this configuration is further substantiated by Westinghouse letter no. TVA-87-864, dated 11/19,87 and ECN L6217. This change did not increase the probability of an accident of malfunction of equipment important to safety, the possibility of an accident or malfunction of a different type, or reduce the margin of safety.

S10430	This DCN was generated specifically as a "documentation change only" DCN, i.e. changes which do not impact system operation or design and are made to reflect the as-built plant configuration. The purpose of this DCN was to incorporate valid discrepancies, identified between actual plant configuration and design output, into their appropriate documentation. Drawing deviations processed through this DCN had no affect on any system operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. Impact to the SAR was in the form of drawing related changes to affected figures contained in the SAR.	This S-DCN addressed various documentation only type changes identified by drawing deviations. The drawing discrepancies included in the DCN include, but are not limited to, component additions and deletions and configuration changes. All changes performed by this S-DCN were limited to design output changes only. No physical modifications or alterations to any system were generated by this DCN. Where applicable, reviews by the appropriate disciplines were used to determine that the changes made by this DCN did not impact system operation or integrity. There was no USQ.
S10746	This activity removed erroneous vendor labels from vendor drawings and correct minor discrepancies on the TVA schematic drawings. These changes do not impact any processes addressed in the SAR. The revisions made to SAR figure 8.3.2-7, schematic drawing 45N763-3, do not impact circuit operation or component function.	This activity is a documentation only change that has no impact on equipment operation. The documentation changes are minor in nature and consist of deleting or correcting errors. There is no adverse impact on nuclear safety. There is no USQ.
S10769	This DCN was generated specifically as a "documentation change only" DCN; however, it provides information on the operation and function of the AFFF Foam Generator Injection System in the Security Backup Power Building. This DCN makes changes to reflect the as-built plant configuration. The purpose of this DCN is to incorporate valid discrepancies, identified between actual plant configuration and design output, into appropriate documentation. DDs processed through this DCN will have no affect on any systems operational characteristics, methods for ensuring compliance with the TSs, or any procedures outlined, summarized or described in the SAR. This DCN provides diagrammatic information about the AFFF Foam Generator Injection System in the Security Backup Power Building. Impact to the SAR is in the form of drawing-related changes to affected SAR Figure 9.5.1-11.	This S-DCN addresses various documentation only changes identified by DD. All changes performed by this S-DCN are limited to design output changes only. No physical modifications or alterations to any systems will be generated by this DCN. Changing the SAR Figure 9.5.1-11 to reflect the AFFF Foam Generator Injection System in the Security Backup Power Building does not impact the ability of the HPFP system to perform any primary or secondary safety function. This change is not covered by any TS, and the margin or safety as described in the TSs is not affected. There is no USQ.
S10820	The change made under this DCN involved revising Detail A26 on CCD No. 2,1-45W880-26 allowing containment cable tray penetrations to be configured with or without tray covers outside the secondary containment barrier. The covers are sheetmetal pieces that are configured to cover the cables and the flammastic typically installed in cable tray penetrations. The deletion of the covers is allowed based on the requirement outlined in NRC Generic Letter 86-10 which allows an equivalency evaluation to be performed. This DCN did not affect the requirements for cable tray covers inside the secondary containment.	Based on the engineering equivalency evaluation performed, the cable tray penetration systems will perform their intended design function of preventing fire from spreading to any area outside the immediate fire area. Therefore, the installation of the cable tray covers has been determined to provide negligible benefit in the event of a fire that would jeopardize the integrity of the barrier rating. An SE was required since the change affected SAR Figure 6.2.1-3 that is not part of the TVA drawing system, even though it is based on CCD No. 1,2-47W880-26. No SAR text was affected by this change. There was no USQ.

TACF	DESCRIPTION	SAFETY SUMMARY
0-93-0068-025	This SA/SE was written to support the TACF to provide the proper documentation to justify the existence of two AHUs connected to HPFP/RSW connections 0-VLV-025-576 and 0-VLV-025-577. The TACF was necessary as a result of a corrective action to SQ930733PER. This PER was written as a result of a generic review of BFPER930133. Water being drawn off of the RSW system is also a load off of the HPFP system since both systems are interconnected. Surveillance Instruction 0-SI-SFT-026-002.0 requires and tests the HPFP system for a maximum RSW load as 967 gpm. If the RSW loads exceed this tested amount, the ability of the HPFP system to provide the required amount of water to prevent the spread of a fire may be jeopardized. Providing TACFs for RSW connections which are a continuous load on the HPFP/RSW provides assurance that the maximum RSW load will not be exceeded. The SE was written because the TACF affects SAR Figure 9.5.1-3. This TACF does not affect the safety-related function of the HPFP system of providing AFW to the steam generators during flood mode.	This TACF does not increase the probability of an accident or the probability of occurrence of a malfunction of equipment important to safety or the consequences of an accident or malfunction of equipment previously evaluated in the SAR. It does not create the possibility for an accident of a different type or create a possibility for a malfunction of a different type than any previously evaluated in the SAR. This change does not reduce the margin of safety as defined in the basis for any TS. The change does not reduce nuclear safety and does not involve a USQ.
0-94-0038-032	This TACF was written to connect a substitute compressor with a total capacity of 1750 SCFM as a replacement for permanent air compressors C and either A, B, or D that normally supply the SCSA system. Each permanent compressor is rated at 610 SCFM each, which totals 1220 SCFM. The additional compressor supplies a part of plant loads while permanent plant compressors are out of service. The SCSA system is common for both SQN Units 1 and 2 and is not safety related. The two trains of ACA system are safety related. The ACA air requirements are supplied from the nonsafety-related SCSA compressors during normal operation through the control air system. The two trained ACA compressors provide a redundant backup supply of air sufficient to safely shutdown both units of the plant in the event of an accident. The temporary compressor provides a portion of this normal nonsafety-related supply to the Auxiliary Control Air system during the period this TACF is installed. The two redundant ACA air compressors will be maintained available for operation to provide the safety-related air supply required for safe shutdown of the plant. The permanent ACA after filters and air dryers will continue to be in service to maintain air quality for the ACA. A safety evaluation was required because the TACF temporarily changes the SCSA system description given in SAR Section 9.3.1. The connections to be made require temporary ("red line") changes to TVA drawings 1,2-47W846 which is SAR Figure 9.3.1-5 and TVA drawing 1,2-47W832-1 which is SAR Figure	This TACF temporarily replaced permanent nonsafety-related SCSA air compressors with a nonsafety-related air compressor. The only portion of this TACF that affected any safety-related portions of any plant systems was the connection of the temporary air compressor providing the normal supply to the safety-related ACA components. The permanent plant check valves that prevent backflow from the ACA to the SCSA remained in place. The permanent plant afterfilters and dryers that process the SCSA air before its use by the ACA system remained in place. The permanent plant instrumentation that monitors the SCSA air for pressure, moisture, etc. before its use by the ACA system remained in place. The TACF did not prevent the ACA, especially the ACA compressors, from providing the air required for safe plant shutdown. The ACA system is trained such that either ACA compressor will provide sufficient air to shutdown either or both units in the event of an emergency or other transient. The backup method of providing temporary air by manual control of the permanent plant compressors did not prevent the proper operation of any other plant system from performing a required safety function. Any failure of this backup control would be no worse than the failure of the temporary air compressors. The implementation of this TACF did not increase the probability or consequences of an accident or malfunction of equipment important to safety that has been previously evaluated in the SAR. Also, the implementation of this TACF did not increase the possibility

	9.5.1-12.	of an accident or malfunction different than any previously evaluated in the SAR. Therefore, this TACF did not reduce the plant margin of safety as defined in the basis of any TS.
2-94-0004-068 WR C207857	This condition dealt with the inoperability of RCP motor No. 3 upper thrust bearing temperature indication. To eliminate the nuisance alarm presented by this condition, a TACF was written to remove the alarm setpoint for RCP motor No. 3 upper thrust bearing RTD. This was done by removing the setpoint of P250 computer point 2TO454A. SAR Section 5.6 states that the upper thrust bearing is equipped with a RTD that provides a signal for a high temperature alarm and indication. SAR Figure 5.1.4 also lists the RTD and its associated P250 computer point. This temporary change impacts the SAR by removing the alarm from limit checking.	This condition did not create a USQ and was safe from a nuclear safety standpoint. This condition dealt with temperature indication of the upper thrust bearing. A loss of the thrust bearing would create a loss of that RCP motor, thus is bounded by the existing analysis for the Condition II event which addresses the loss of a RCP. Therefore, this condition did not create the possibility of an accident of a different type than previously evaluated in the SAR. The RCP motor is not required for the RCS pressure seals as with the pump itself. The RCP motor is not safety related and not required to mitigate any Chapter 15 event. No new radiation release paths were created by this condition, and the occurrence of a release path was not be created due to any malfunction. Hence, the consequences of a malfunction of equipment was not increased. This condition did not alter any safety system functions required to mitigate an abnormal situation or event and, therefore, did not change any margin of safety defined in the basis of the TS.
2-94-0014-068	This condition dealt with the inoperability of RCP motor #1 A phase stator winding temperature indication. To eliminate the nuisance alarm presented by this condition, a TACF was written to remove the associated P250 point from scan. This was done by removing from scan the P250 computer point 2TO409A and entering an arbitrary value of 10 degrees F. SAR section 5.6 states that the A phase stator winding is equipped with a resistance temperature detector that provides a signal for a high temperature alarm and indication. SAR figure 5.1.2 also lists the resistance temperature detector and its associated P250 computer point. This temporary change impacts the SAR by removing the point from scan.	This condition did not create a USQ and was safe from a nuclear standpoint. This condition dealt with temperature indication of the A phase stator winding. Two failure modes exist for the RCP motor RTDs. The RTD can fail open, in which case no reading is available to the plant process computer, or the RTD can fail shorted and create circulating currents. The RTD will not usually fail in a shorted condition, but should this type of failure occur, insufficient energy exists in the circuits to damage the containment electrical penetration, motor or the pump. The RTDs do not protect the motor but provide monitoring information such that operator action can be undertaken before overcurrent relay initiation or to reestablish cooling water to the motor. No credible failure of the RTD will cause the RCP to fail to perform its intended function. Hence, there exist no failure modes that could impact nuclear safety. In addition, a failure mode created by no temperature indication of the stator RTDs could be a RCP motor failure as a result of excessive winding temperature. A condition II event addresses the loss of a RCP and a previous SE performed for RCP #3 upper thrust bearing utilizes this analogy for the loss of a RCP. It is still appropriate to maintain this analogy since the stator winding RTD affects only this RCP motor and since the motor is monitored with two other stator winding RTDs and either would sense a temperature rise in A phase stator winding. Hence, consequences of a

		malfunction of equipment were not increased. This condition did not alter any safety system functions required to mitigate an abnormal situation or event and therefore did not change any margin of safety defined in the basis of the TS.
2-94-0040-067	Additional cooling capacity was required during the Unit 2 Cycle 6 refueling outage to reduce the temperature inside containment to allow outage work to be performed. The LCCs cooling water is normally supplied by ERCW which during the outage was between 70 and 85 degrees F. At this supply temperature, an adequate working environment could not be maintained. Increased cooling capacity was accomplished by supplying chilled water to one of the two cooling coils of the two permanent plant LCC 2B or 2C using a temporary system of water chiller packages, valves, and hoses connected to the LCC ERCW supply and return piping and using the LCC fans to circulate containment air as it passes over the coil structure. The cooling coils for LCC 2B or 2C had maintenance work performed on them during the outage; therefore, temporary cooling was provided by one or the other depending on availability. This TACF covered the installation and operation of the chillers and routing of the hoses. The temporary chilled water system was only in place during Modes 5 and 6.	This TACF provided additional containment cooling capability during Modes 5 and 6. The systems affected by this activity are not required to be operable during Modes 5 and 6, except for containment isolation capabilities of penetration X-109 during fuel handling activities or midloop activities. Appropriate measures were established to ensure containment integrity and isolation were maintained during core alterations and midloop activities. System specifications ensured overpressurization of permanent ERCW piping and valves and temporary equipment did not occur. The ERCW system was realigned and restored before entering Mode 4. The containment penetration was 10 CFR 50 Appendix J tested and declared operable before entering Mode 4. ABSCE boundary penetration breaches and repairs were handled in accordance with plant procedures and were restored before entering Mode 4. There was no reduction in the margin of safety. There was no USQ.
2-94-0042-024	This TACF installed a temporary 7.5 ton air conditioning unit in the additional equipment building to assist in maintaining the temperature while the permanent units are repaired. Cooling water from this temporary unit is obtained from the raw cooling water system, which impacts SAR Figure 9.2.7-4.	This TACF does not involve any safety-related or TS equipment or system. The installation of the temporary air conditioning unit is controlled under SSP-12.7, "Temporary Equipment Control," which ensures that it cannot damage other equipment required for safety during a seismic event. The installation of this temporary unit does not hinder any equipment from performing its accident mitigation functions. There is no adverse impact to the margin of safety.

PROCEDURE	DESCRIPTION	SAFETY SUMMARY
O-SO-62.4 Rev 3	Holdup Tank Operation Normal operation of the BAE packages effect reclamation of borated water from HUTs A and B to produce concentrated boric acid for transfer to the boric acid storage tanks and distillate which is fed to the primary water storage tanks or the monitor tank. O-SO-62.4 describes the operation of the HUTs including recirculation through the BAE feed ion exchangers via the gas stripper feed pumps, transfer between tanks, and recirculation through the HUT recirculation pump. As a result of operational difficulty and unreliability of the BAEs, in addition to the cost of operation and intensive maintenance required to maintain operability, it is advantageous to have the capability of processing HUT water through the radwaste system for release rather than for recovery via the BAEs. This change in the procedure allows transfer of HUT water to the FDCT or TDCT for processing as radwaste.	This change affected the SQN SAR only with respect to the descriptions of the radwaste and CVCS (to incorporate the option of processing HUT water via the radwaste system) and the radioactive liquid effluent discharge information presented in section 11.2. Although changed, the liquid effluent discharge information presented in the SAR is still within existing release limits as documented by analyses revised in support of this change. The change did not affect or modify any accident analysis, TS margin of safety, safety function, or equipment or system important to safety, as described in the SAR. This change did not involve a USQ.
O-TI-SXX-000-016.0 Rev 1	Breaching the Shield Building ABSCE or Control Room Boundaries - Units 0, 1 and 2 This SA/SE supports the implementation of procedure O-TI-000-016.0. This SA/SE allowed breaching of the shield building between the annulus and regions inside the auxiliary building that are part of the ABSCE. Chapter 15 of the SAR assumes a design annulus inleakage of 500 cfm. SQN-65-D053/EPM-BVS-030190 Rev 5, "Maximum Allowable Hole Diameter Between Annulus and ABSCE," an "effective" open penetration of 4.5 inches or less will not cause an inleakage into the annulus of greater than 500 cfm. Therefore, the LOCA analysis as described in the SAR is not affected. Also, no flow will exist into the ABSCE from the new penetration since the annulus is at a lower pressure than the ABSCE. As a result, no DBA reported in Chapter 15 of the SAR is adversely impacted.	The performance of O-TI-SXX-000-016.0 for installation of open penetrations through the shield building wall between the ABSCE and the annulus does not cause an increased potential of radioactivity to be released into the environs provided the opening is less than or equal to an "effective" equivalent penetration of 4.5 inches. Therefore, implementation of this procedure does not create new failure modes as long as the guidelines of this SE are followed.
O-VI-MXX-068-003.0	Vendor Refueling Instruction This SA/SE was written for the addition of the Westinghouse procedure STD-OP-1994-6926 to TVA procedure O-VI-MXX-068-003.0 and for SAR change. The Westinghouse procedure provides instructions for the operation of the double stud tensioner system and its accompanying head hoist system at Sequoyah during tensioning and detensioning of the reactor vessel head bolting. The procedure covers the proper sequence of events for the site checkout, installation, operation, and removal of these systems. Westinghouse SECL-93-050 assesses the use of the double stud	The SECL demonstrates that if the functional requirements are met, the use of the double stud tensioner system will result in proper reactor vessel integrity.

	tensioner system to ensure the tool will adequately tension the studs, resulting in a proper seal of the reactor vessel, and will not result in damage to the RV head or studs.	
1-PI-SFT-070-139.0 Rev 1	Component Cooling System Unit 1 A-Train Flow Balance This change involved steps to isolate or reduce the ERCW to the Unit 1 A-train CCS heat exchangers in order to increase the CCS bulk temperature greater than 70 degrees F during periods of low river water temperature while performing the CCS flow balance. Low ERCW temperature and thus, low CCS temperature, are also influenced by the minimal heat load in Mode 5. During testing, it is necessary to fail open the outlet valve on the CCS side of the letdown heat exchanger in order to perform the flow balance. When the CCS temperature is below 70 degrees F with the unit in Mode 5, the opening of this valve could cause unnecessary cooling of the letdown flow and VCT and ultimately the RCS. Low letdown and VCT temperatures may affect the charging pump's martensitic shaft, so new precautions during flow balancing are prudent.	This procedure change did not impact any SAR text, figure, table or procedure. The isolation of the ERCW from the Unit 1 A-train CCS heat exchangers while the unit is in Mode 5 will cause the CCS to heat up and the SFP to heat up if it is aligned to Unit 1 (it may be aligned to Unit 2). This activity and its affect on both units and all associated equipment were evaluated as well as the DBAs and credible failure modes as they relate to this activity. The affected systems' ability to mitigate an accident was not significantly affected by this activity. No equipment was adversely affected by isolating ERCW to the Unit 1 A-train CCS heat exchangers and the plant still operates within the bounds of the TSs. Therefore, a USQ does not exist.
1-SO-14-1 Rev 3	Condensate Demineralizer Polishing System The discussion and procedural steps for 1-FCV-14-3 were removed from body of instruction and remain on valve checklist 1-14-1.02 (1-SO-14-1 Att 2, page 14 of 15) as identified in the closed position only. Manual isolation valves for 1-FCV-14-3 (1-14-548/1-14-549) have been changed from the open position to the closed position on valve checklist 1-14-1.02. This disabled the ability to cause condensate swings as a result of quick opening/closing capebilities of 1-FCV-14-3. Manual isolation of 1-FCV-14-3 improves nuclear safety because of the reduction of plant (potential) transients generated from condensate flow swings as a result of 1-PDT-14-204 exceeding 60 psi and valve 1-FCV-14-3 opening within four (4) seconds and starting to close as soon as 1-PDT-14-204 indicating a Delta P (i.e. DP) on condensate demjneralizer system control panel is required with 1-FCV-14-3 manually isolated. The SAR was impacted because the plant will be operating differently than is addressed in section 10.4.6. This change was necessary because of recent changes to 1-FCV-14-3 increasing the potential for flow transients. Operating with 1-FCV-14-3 (as configured) in closed and isolated condition improves the present operation and does not degrade the SAR evaluation for condensate demineralizer system operation.	Manually isolating 1-FCV-14-3 under the system configuration and operation of heater drain system improved nuclear safety by minimizing plant transients as a result of flow swings in condensate.
2-SO-14-1 Rev 3	Condensate Demineralizer Polishing System The discussion and procedural steps for 2-FCV-14-3 were removed from body of instruction and remain on valve checklist 2-14-1.02 (2-SO-14-1 Att 2, page 14 of 15) as identified in the closed position only. Manual isolation valves for 2-FCV-14-3 (2-14-548/2-14-549) have been changed from the open position to the closed position on valve checklist 2-14-1.02. This disabled	Manually isolating 2-FCV-14-3 under the system configuration and operation of heater drain system improved nuclear safety by minimizing plant transients as a result of flow swings in condensate.

the ability to cause condensate swings as a result of quick opening/closing capabilities of 2-FCV-14-3. Manual isolation of 2-FCV-14-3 improves nuclear safety because of the reduction of plant (potential) transients generated from condensate flow swings as a result of 2-PDT-14-204 exceeding 60 psi and valve 2-FCV-14-3 opening within four (4) seconds and starting to close as soon as 2-PDT-14-204 indicating a Delta P (i.e. DP) on condensate demineralizer system control panel is required with 2-FCV-14-3 manually isolated. The SAR was impacted because the plant will be operating differently than is addressed in section 10.4.6. This change was necessary because of recent changes to 2-FCV-14-3 increasing the potential for flow transients. Operating with 2-FCV-14-3 (as configured) in closed and isolated condition improves the present operation and does not degrade the SAR evaluation for condensate demineralizer system operation.

PROCEDURE/REVISION	DESCRIPTION	SAFETY SUMMARY
CCDCR-55	Core Component Change Request 55 This SA/SE considers changes to the VANTAGE 5H fuel assembly and its inserts which consist of rotated grids, a change in the positioning of the engraving of the assembly ID on the top nozzle spring clamp, fuel rod repositioning, an extended burnup bottom grid with a stronger spring, and a reduction in wet annular burnable absorber length from 134 to 132 inches. The text and figures in Chapter 4 of the SAR that describe the wet annular burnable absorbers required revision to reflect the modified configuration. Westinghouse test loop data indicates that the flow vibration can be damped by rotating every other mixing vane grid 90 degrees clockwise (as viewed from the bottom). The top and bottom grids are not mixing vane grids, so the third, fifth and seventh grids from the bottom were rotated 90 degrees. Westinghouse is standardizing the manufacture of all fuel assemblies so that the bottom of the fuel is the same distance from the bottom of the bottom nozzle. This results in the distance from the top of the bottom nozzle to the bottom of the fuel rod end plug being changed from 1.100 inches in the previous batch of VANTAGE 5H fuel assemblies to 0.465 inches.	A Reload Safety Evaluation for Unit 2 Cycle 7 operation with fuel with these changes was performed by Westinghouse. This evaluation showed that all design criteria are met after the changes were made. These changes do not affect the function of equipment important to safety or the margin of safety in the basis of any TS. The Westinghouse Reload Safety Evaluation and the discussion given in the summary confirm that the conclusions of the SAR accident analyses remain valid after these changes were made.
PER 0-TI-SXX -000-016. 0 REV 5	SPECIAL REQUIREMENT: "Direct and constant means of communication must be maintained between the area being breached in excess of the 50.5 square inches in the control room, i.e. a watch at the penetration and a signal man for the control room. Upon receipt of an ABI, an operator in the MCR will immediately notify the signal man, who will close or seal off the penetration with a minimum 3/8-inch steel plate or plug within 18 minutes." Revision 1 of this SA/SE allowed any WRs, DCN, and RMs that require a breach to the ABSCE to be performed during Unit 2 Cycle 6 outage provided the special requirement described above is implemented for each individual breach. The difference between revision 0 and revision 1 is that revision 0 permitted a breach only on a case by case basis. After completion of the installation and routing of the cables, hoses, etc. through a penetration, the penetration will be resealed in accordance with M&AI 13.1 with a minimum of 12 inches of RTV foam which will reestablish the penetration seal. A 3/8-inch minimum steel plate may be fabricated and securely mounted (minimum 4 bolts or 4 clamps equally spaced) to any breach with or without holes to accept the temporary cables, hoses, etc., or plug to provide penetration sealing to reduce the breach area below the 0-TI-SXX-000-016.0 limits for ABSCE boundary breach. The applicable portions of any task and this SA/SE will be in affect any time the penetration is breached. Upon completion of all outage work required through this penetration, the cables, hoses, etc. shall be	The consequences of an accident will not exceed regulatory limits provided the special requirements and requirements of the TI are maintained. The breach will be acceptable from a nuclear safety standpoint.

	removed and the penetration will be resealed to original configuration in accordance with the penetration drawings. Chapter 15.5, page 15.5-7 mentioned the initial delay of 4 minutes to establish the ABSCE and 1 minute to draw down the ABSCE to negative 1/4-inch W.G. The referenced calculation allows a deviation of the initial delay of more than 4 minutes from the SAR.	
SAR Change	Calculation SQNAPS7-010 Rev 3 The post-LOCA containment hydrogen concentration analysis documented in SQNAPS7-010 includes a quantity of additional aluminum and zinc inventory added as a contingency for design modifications or other changes which may impact the light metals inventory inside containment. Whenever the contingency quantity is used up by changes, SQEP-133 requires a revision to the analysis and update of the SAR. Routing additions to the inventory as documented by the SEQP-133 process and PER SQ940227 are the reason for this update to the hydrogen analysis and the SAR. The additional quantity of aluminum and zinc have reduced the available aluminum inventory contingency added for margin; therefore, SQNAPS7-010 was revised to reanalyze the post-LOCA hydrogen concentration inside containment. As a result of the reanalysis, a new hydrogen concentration vs time profile was established and was incorporated in the SQN SAR by revision to Figures 6.2.5-1, 15.4.1-96, 97, and 98.	The design basis for the hydrogen recombiner system is to ensure that the post-LOCA hydrogen concentration remains below the lower flammability of 4 volume percent hydrogen, with one hydrogen recombiner beginning operation at 24 hours post-LOCA. The hydrogen generation analysis was revised to incorporate the current light metals inventory of aluminum and zinc located inside primary containment. This reanalysis was a planned update which is made whenever the inventory of light metals is increased by 10 percent. The inventory program is controlled under procedure SQEP-133. The analysis, revised to incorporate the most current light metals inventory, documents that the hydrogen volume percent inside containment never exceeds 2.6 percent with one recombiner beginning operation at 24 hours post-LOCA.
SAR Change	Appendix 6.8C and 6.8D This evaluation documented the change to Appendix 6.8C and 6.8D of the SAR which are part of the ASME Section XI Valve Testing Program. As a result of problems encountered with 62-662 (letdown relief valve) spuriously relieving when stroke testing is performed on FCV-62-72, 73, 74, and 77, the test frequency for these four valves was changed from quarterly to cold shutdown as allowed by the applicable code of record for the valves for the individual units.	The change in the test frequency for FCV-62-72, 73, 74, and 77 from quarterly to cold shutdown is acceptable form a nuclear safety standpoint. The change was allowed by the applicable codes of record for ASME Section XI valve testing.
SAR Change	Section 3.2 This change to Section 3.2 of the SAR documented the differences between the ASME Section XI boundaries and the design boundaries. Nuclear Engineering calculation SQN-SQTP-001 justified those differences. The differences between the design boundaries and the ASME Section XI boundaries are a result of the use of both the ANS N18.2-August 1970 draft and ANS N18.2-1973 for design safety classifications and the use of Regulatory Guide 1.26 for the original ASME Section XI boundaries, respectively.	This change was acceptable since it only clarified the differences between the ASME Section XI boundaries and the design boundaries.
SAR Change	Section 7.3.2.2.5 This change to the SAR removed the wording about online testing using the safeguards test cabinet. Corrective Action Report SQP880605PER was written because of a conflict between the SAR and the TS documents. Section 7.3.2.2.5 of the SAR described online testing of the ESF actuation system equipment. The section	The ESF actuation system equipment is being testing to verify the equipment will be able to perform the intended functions. Online testing is done on each train on a staggered basis of 62 days. This test of all the ESF process and logic circuits includes a continuity test of the slave relays. Also, online testing operates the testable actuation devices from the control room. During plant

	contained a detailed description of the safeguards test cabinet online testing process. The TS does not require the use of the safeguards test cabinet.	shutdown, the testing operates slave relays and final actuation devices. In addition to the above testing, other tests such as response time testing verifies the operability of the ESF actuation system equipment. The documentation change does not increase the probability of an accident or malfunction of equipment. The testing being done checks the equipment. There is no increase in the consequences of an accident or malfunction as there is no change to the equipment. The documentation change does not create a possibility for an accident or malfunction because there was no change to the equipment and testing is being done.
SAR Change Section 9.5.1	SQ940562PER was written to document apparent discrepancies between SAR Section 9.5.1.1.g., documents referenced in SAR Section 9.5.1.3, TS 3.7.11.2.c., NFPA 13, and the Sequoyah Fire Hazards Analysis Calculation SQN-26-D054/EPM-ABB-IMPFHA. One of the documents referenced in SAR Section 9.5.1.3 is the October 23, 1979 letter from L. M. Mills to L. S. Rubenstein. The letter encloses Revision 4 of TVA's response to the NRC ASB fire protection review questions for Sequoyah Nuclear Plant. In the response, the control building corridor 669.0-C11 is listed in Table 1-1 as being protected by a "preaction sprinkler system." This in an error in Table 1-1. Because the referenced document in the SAR is a memorandum, the document itself cannot be revised to correct this error. The request for SAR change adds a note to Section 9.5.1.3 stating that information contained in these references may not reflect the as-configured condition of the plant. A review of design output documentation confirms that Zone 48 and 49 detectors for the corridor are not configured to provide for automatic actuation of flow control valves 0-FCV-26-203 and 0-FCV-26-207 which supply water to the sprinkler heads in the corridor. These two FCVs also provide water for other designated rooms on 669.0. Given the very low fire load, lack of ignition sources, and lack of fire spread, there is no reasonable possibility of a fire that could damage any equipment (conduit or cables) important to the safety of the plant. It is very likely that the fire brigade member responding to an alarm would use a portable extinguisher or hose station to extinguish a fire before manually actuating the FCVs. Because of the very low fire load, a significant possibility exists that sprinkler heads would not fuse before self-extinguishment or extinguishment by other means. For the reasons stated above, the "manual" actuation of the FCVs is acceptable for the hazards they protect. The request for SAR change adds a statement to SAR Section 9.5.1.1.g. which provides for actuation of manual actuation of control valves where required. It has been demonstrated that the safety-related cables contained in conduit would not be affected by the very low fire load in the corridor and that the as-configured corridor suppression system is operable based on fast fire brigade response and the ability to manually activate the FCVs. For the reasons stated above, the system is acceptable and there are no changes required to the TS.	It has been shown that the as-configured detection/suppression is acceptable for the equipment protected and is an operable system. It has been demonstrated that there is no basis for a conclusion that this involves an unreviewed safety question. This change does not adversely affect any safety limits, settings, or limiting conditions of operation.

SAR Sections 9.2.2 and 9.2.5	This SA/SE was written to revise the SAR Sections 9.2.2, "Essential Raw Cooling Water," and 9.2.5, "Ultimate Heat Sink." The changes deleted the description and SE for "Prior to Unit 2 Operation," corrected listing of components served by the various trains, made miscellaneous minor changes to correct the system description, clarified/corrected statements regarding single failures, deleted incorrect information regarding system flow rates, updated and corrected information regarding instrumentation and controls, corrected statements on backwashing and inspections, and clarified the statements in the SE regarding effects of single failures on both units.	These changes were made to bring the SAR into agreement with current operating practice, design bases, system configuration, etc. There are no accidents in Chapter 15 associated with loss or other malfunction of the ERCW system or ultimate heat sink. The analysis for equipment malfunctions was updated as part of this change, but the changes only describe the system configurations. None of the changes involved a change of probability of any failure currently evaluated; for example, deleting reference to AERCW pumps could not change the probability of failure of one of the ERCW pumps. None of the accidents evaluated in the SAR involve a loss of ERCW or ultimate heat sink other than through the single failure criteria. The revised SAR wording in this change did not affect single failure criteria used in the accident analysis, nor is any equipment lost in a single failure other than that the previous evaluation included. There was no reduction in the margin of safety. There was no USQ.
SAR Section 8.3.2.1.2	This SA/SE was for changes to Section 8.3.2.1.2 of the SAR which describes Sequoyah's nonsafety-related dc power systems. The changes were necessary to provide a more accurate and adequate description of nonsafety-related dc power systems. The existing description was inaccurate and in some cases inadequate. The SAR as it existed talked about a 48-volt dc telephone and annunciator power supply and a separate 48-volt battery system. In actuality, there is only one 48-volt dc power system consisting of a 48-volt telephone battery and a 48-volt plant battery. No annunciation system is powered by Sequoyah's 48-volt battery system, and the identified battery loads are not correct. Also, additional information was added to improve the description of our 250-volt dc power system. All changes are in agreement with other sections of the SAR. No physical work was performed on plant equipment or systems.	The evaluated activity did not make changes to any plant equipment or system. The SAR was revised to more accurately and adequately describe SQN's nonsafety-related dc power system. All changes are in agreement with other sections of the SAR. Thus, no USQ is involved.
SAR Change Request for CO_2 System	The Cable Spreading Room titled section of section 8.3.1.4.2 of the SAR states, "Smoke detectors and a carbon dioxide fire protection system have been installed ensuring that potential....." The SAR change reads,"Smoke detectors and a fire protection suppression system have been installed ensuring that the ...." (Underlined words or phrases indicate the changes.) Section 8.3.1.4.4 of the SAR states that "A carbon dioxide fire protection system with manual control is installed in the cable spreading room as a backup." The change reads, "A High Pressure Protection suppression system is installed as the primary means of fire suppression with a carbon dioxide fire protection system with manual control installed in the cable spreading room as backup." Section 8.3.1.4.4 of the SAR also states that "A carbon dioxide system with automatic control is installed in each of the diesel-generator rooms, in each auxiliary instrument room, in the oil pump room of the diesel-generator building, in the auxiliary instrument room, and the computer room." In this section of the SAR, the auxiliary instrument room is	These SAR changes did not increase the probability of an accident or the probability of occurrence of a malfunction of equipment important to safety or the consequences of an accident or malfunction of equipment previously evaluated in the SAR. The changes did not create a possibility for an accident of a different type or create a possibility for a malfunction of a different type than any previously evaluated in the SAR. These changes did not reduce the margin of safety as defined in the basis for any TS. These SAR changes clarified the description of the fire suppression systems in the cable spreading room and added the D/G electrical board room to the SAR description.

	mentioned twice and the diesel-generator electrical board rooms are not mentioned. The change reads, "A carbon dioxide system with automatic control is installed in each of the diesel-generator rooms, in each of the diesel-generator electrical board rooms, in the oil pump room of the diesel-generator building, in the auxiliary instrument rooms, and the computer room of the control building."	
SAR Section 11.3 and 11.4	This change was primarily for clarification and correction to these sections and to more accurately describe the systems and operating practices for SQN's Gaseous Waste System and Process and Effluent Radiological Monitoring Systems. The only effective change made is the sampling frequency requirement for containment venting. Existing sampling frequency was on a daily basis, with a 24-hour release permit being generated by the Chemistry Lab and authorization for containment venting being transferred to the MCR. As containment pressure increases and venting is required, Operations records changes that have taken place in containment by reviewing and recording the containment RM count rates (both upper and lower), and then vents containment according to the applicable instruction. The changes to the SAR change the daily sampling to weekly and allow for a 7-day containment vent release permit. The offsite dose methodology remains the same; therefore, determination of offsite dose is not impacted by changing sampling frequency. These changes to the vent sampling frequency have no impact of nuclear safety and have no affect on 10 CFR 20 limits.	The corrections, clarifications, and change made to the SAR have no impact on any previously evaluated accident or condition.
SAR Section 10.4	SAR Section 10.4 addresses "Other Features of the Steam and Power." Since the original submittal of the SAR, various features of the heater drains and vents system have changed or it has been determined that they operate differently than the description in the SAR. This SE documented a change to the SAR to correctly describe the heater drains and vents system as it now functions in the plant.	The heater drains and vents system is a nonsafety system located in the turbine building and does not impact any safety function. The changes to the SAR described in this SA/SE did not increase the probability of an accident or malfunction of equipment important to safety because the heater drains and vents system continues its independence from any safety-related system or function. The consequences of an accident or malfunction of equipment important to safety was not increased. Heater drains and vents system is not covered by any TSs.
SAR Section 8.2	This change was a documentation change only without any impact on any SQN physical plant feature or system. The text in section 8.2.2, Transmission Network Analysis, was revised to delete references to figures 8.2.2-1 through 8.2.2-13, and figures 8.2.2-1 through 8.2.2-13 were deleted. These figures are not included in the TVA drawing system and, therefore, would not be automatically updated in the SAR should future changes to the transmission network or plant loading requirements require revision to the figures. These figures provide only reference information in the SAR and the values shown are not used elsewhere in the SAR or TSs.	The specific values provided by the subject SAR figures goes beyond the scope and level of detail of other information provided by the SAR. Only the generalized results of these values need to be addressed in the SAR to address the adequacy of the offsite power system to supply the total required power to the plant's electrical auxiliary power system under normal, shutdown, and LOCA conditions for any single transmission contingency. Also, the calculation No. E31 930907 200, "Sequoyah Nuclear Plant Offsite Power Supply," provides grid operating instructions to provide adequate shutdown power during the limiting condition of a LOCA on Unit 2 during an outage of the 500/161/13 kV intertie transformer bank at SQN. Customer Group letter referenced in the SA/SE, in accordance with

		established Intergroup Agreement No. 6, provides the latest transmission system analysis results supporting the adequacy of the offsite power system to supply SQN auxiliary power system requirements.
SAR Change 187	This SE assessed the changes to the SQN SAR necessary to implement 10 CFR 20, "Standards for Protection Against Radiation." A new revision to 10 CFR 20 was issued with an effective date of January 1, 1994. The SQN SAR contains information based upon 10 CFR 20 concepts and terminology with regard to describing aspects of the radiation protection program. Updating of this information was editorial in nature, but did involve new terminology and changed administrative controls language. The impact of the revisions to 10 CFR 20 required general editorial changes to the text of the SAR. The 10 CFR 20 revision did not involve any test or experiment. The editorial changes involved nomenclature and administrative details without any SAR health or safety benefits being reduced.	The revision to 10 CFR 20 was generated to update the code to clarify and refine philosophies associated with occupational dose to personnel. The SAR contains references to existing 10 CFR 20 concepts and terminology, primarily with regard to radiation protection. Revision of the SAR to update information which is based upon the concepts and terminology contained in the new 10 CFR 20 was necessary to ensure that health and safety benefits are not reduced. This SAR revision did not make any significant changes in commitments identified in the SAR that apply to the radiation protection program, did not involve any changes to the facility described in the SAR, and did not involve any USQ pursuant to 10 CFR 50.59.
SQPER920298 Rev 2	Bypassed and Inoperable Status Indication The Bypassed and Inoperable Status Indication system is a computer based system which provides indication and annunciation of the abnormal status of certain safety-related systems which have been bypassed or deliberately placed in an abnormal condition. The BISI system supplements existing plant administrative procedures by supplying MCR personnel with ongoing plant safety system status. This SE addressed an SAR change to Section 7.1.4.3, "Bypassed and Inoperable Status Indication." The revision to this section changed the systems monitored by BISI from "Ventilation" to "Air Cleanup Systems"; "Emergency Gas Treatment" to "Cntmt Air Return Fans"; and added that safety-related room coolers are not monitored by BISI.	The only portions of the ventilation system which are presently monitored by BISI are those which perform a primary safety function such as the air cleanup systems. These systems consist of the ABGTS, EGTS, Emergency Pressurizing and Cleanup System for the MCR. The only exception to this is the containment air return fans, now a separate system description line item. Since the EGTS is a subset of the Air Cleanup System, this system was replaced with Cntmt Air Return Fans. These system description changes were semantic changes only. The safety-related room coolers are not addressed in any LCO or SR section inside the Unit 1 and 2 TSs. However, the room coolers are attendant equipment to the safety-related mechanical systems. The room coolers are not in direct line with any safety-related mechanical system which is required to mitigate an event. A failure of the room coolers to start would not prevent the safety-related mechanical system from operating. The room coolers are under an intensive PM program to tighten belts, lube bearings, vacuum the housing, etc. This intensive PM program improves the availability of the coolers by preventing unscheduled down time due to breakdown. These room coolers are being administratively controlled to require operations to enter the ABGTS fan, EGTS fan, ESF pump, etc. into the appropriate LCO action before removing the attendant room cooler from service. The BISI information is not used during any DBA or anticipated operational transient. The BISI system supplements existing plant administrative procedures by supplying MCR personnel with ongoing plant safety system status. The primary intent of BISI is to provide an indication that a safety system has been purposely placed in a state which could cause inoperability. The TSs shall be the basis for making the final decision about system operability, since the operator is permitted to configure the system to meet TS and operator configured systems

		may not agree with the BISI logics. Thus, there are no accidents or transients evaluated in the SAR that are affected by not monitoring the safety-related room coolers on the BISI system.
Unit 1 Cycle 7 COLR	Unit 1 Cycle 7 Core Operating Limits Report The change included an optional, W(z) function and a corresponding, more restrictive, Axial Flux Difference Limits figure and revised the Shutdown Rod Insertion Limits specified in Section 2.2.1 and the Control Rod Insertion Limits specified in Figure 1 to require the fully withdrawn position of ≥ 226 to ≤ 231 steps withdrawn for cycle burnups to 9,000 MWd/MTU.	The additional W(z) function was determined using the same methodology as was used for the original. It differs from the original only in that it was determined using the more restrictive Axial Flux Difference Limits and control rod fully withdrawn positions. The conclusions of all SAR accident analyses remain valid and no USQs exist.
Unit 2 Cycle 7	Unit 2 Cycle 7 Core Reload This SA/SE is applicable to Cycle 7 operation in all modes to a maximum core-average cycle burnup of 20,400 MWD/MTU. Confirmation that this reload core will remain within the bounds of all SAR accident analyses is based on the Reload Safety Evaluation performed by Westinghouse. SQN Unit 2 was refueled by replacing 94 burned fuel assemblies with 84 fresh Westinghouse Vantage 5H fuel assemblies, 9 twice burned fuel assemblies previously discharged from SQN 1 Cycle 4, one once burned fuel assembly previously discharged from SQN 2 Cycle 4, and shuffling the remaining burned fuel assemblies for Cycle 7. The fresh fuel which was loaded consists of 68 assemblies enriched to 3.8 w% U-235 and 16 assemblies enriched to 4.2 w% U-235. Of the 84 fresh assemblies, all 84 contain integral fuel burnable absorbers. Fuel inserts including wet annular burnable absorber assemblies, secondary sources, rod cluster control assemblies, and plugging devices were also shuffled. SQN Unit COLR was also revised to reflect changes to the following cycle 7 specific operating limits: (1) most positive as-measured Beginning of Cycle Life, All Rods Out, Hot Zero Power Moderator Temperature Coefficient; (2) F_Q limit at rated thermal power; (3) $F^N_{Delta\ H}$ limit at rated thermal power; and (4) the burnup-dependent W(z) function. In addition, Table A.1 has been implemented. This table provides cycle specific predicted F_Q margin decreases as a function of cycle burnup that are greater than 2% per 31 effective full power days and will be used in place of the 2% factor specified in TS SR 4.2.2.2.e.1.	Westinghouse performed an extensive evaluation of the SQN Unit 2 Cycle 7 core characteristics and their impact of the SAR accident analyses. This evaluation is documented in the Reload Safety Evaluation and confirms that the conclusions of all SAR accident analyses remain valid and no USQ exist.
WR C003994 0-TI-16-SXX-000-016.0	WR C003994 required an ABSCE breach of a 10-inch penetration seal for penetration # S-012 which breaches the exterior south wall of the Unit 2 additional equipment building. The penetration was used to route temporary cables, hoses, etc. to support the Unit 2 Cycle 6 outage. After completion of the installation and routing of the cables, hoses, etc. through the penetration, the penetration will be resealed with a minimum of 12 inches of RTV foam which will reestablish the penetration seal. A plate may be fabricated and mounted to the penetration with holes to accept the temporary	The consequences of an accident will not exceed regulatory limits providing the special requirements and requirements of the TI are maintained. The breach will be acceptable from a nuclear safety standpoint.

	cables, hoses, etc., to reduce the breach area below the O-TI-SXX-000-016.0 limits for ABSCE boundary breach. Resealing or reinstallation of the plate will be required each time the penetration is breached to add or remove items through the penetration. The applicable portions of the WR and this SA/SE will be in affect any time the penetration is breached. Upon completion of all outage work required through this penetration, the cables, hoses, etc. shall be removed and the penetration will be resealed to original configuration in accordance with the penetration drawings. Chapter 15.5, page 15.5-7 mentioned the initial delay of 4 minutes to establish the ABSCE and 1 minute to draw down the ABSCE to negative 1/4-inch W. G. The referenced calculation allows a deviation of the initial delay of more than 4 minutes from the SAR.	
WR C207700	This SA/SE concluded that the following evolution was safe from a nuclear safety standpoint. A pinhole leak had developed downstream of the 2B2 low pressure MSR operating vent valve. In order to attempt an online repair, the MSR venting was accomplished through the startup vent path while the repairs to the operating vent line, which was removed from service, were performed. This SA/SE evaluated the temporary system conditions (valve alignment) which were controlled in accordance with this WR. The piping is nonsafety related and is located in the nonseismic turbine building. Operation utilizing the startup vent at full power conditions disagrees with the SAR description which states that the startup vent will be used for startup conditions and the operating vent will be used for normal power operation. An SAR change was not required since this system alignment was only in place for the length of time required to repair the leaking weld.	This activity did not interface with any engineered safety features and is not required for safe shutdown of the reactor. Therefore, there was no increase in the probability of an accident, in the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the SAR, in the consequences of an accident or malfunction of equipment important to safety, and the possibility for an accident or a malfunction of a different type was not created. This temporary system alignment involved piping and valves which are not TS nor TS attendant equipment. Therefore, the margin of safety as defined in the basis for any TS was not reduced. There was no USQ.