



**BEAVER VALLEY POWER STATION
UNIT NO. 2**

**DOCKET NO. 50-412
LICENSE NO. NPF-73**

ATTACHMENT 2

**1990 REPORT OF FACILITY
CHANGES, TESTS, AND EXPERIMENTS**

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Testing Procedures</u>	<u>Page</u>
Cycle 2 Extension	1
<u>Health Physics Procedures</u>	
Alarm Setpoint Change To 2SSR-RQI100 and Change To UFSAR 10.4.8.3 and 11.5.2.5.9	2
<u>Operating Procedures</u>	
OM 2.19.4.1 "Clearing GWS Overhead Gas Compressor"	3
Temporary Modification - Installation of Temporary Pressure Gauge at [PDI-1RW-109]	4
Normal System Arrangement Change for [2SAS-41 AND 43]	5
OST 2.24.9 "Overspeed Trip Test of Turbine Driven AFW Pump [2FWE*P22]"	6
TOP 2-90-1 - "Transferring Resin from 55 Gallon Drums to a HIC at Unit 2 Waste Handling Building Truck Bay"	7
TOP 2-90-2 - "Charging Pump Lines Hydrogen Accumulation Test"	8
TOP 2-88-26, Revision 1 - "Head Capacity Curve and Base Line Data Collection for CCP Pump [2CCP*P21A,B,C] Test"	9
Temporary Modification - Gagged [2CNM-RV-100A]	10
OST 2.15.3 and 4 - "CCP Valve Position Verification"	11
Isolation of [2GNS-PCV101A,B] by Changing [2GNS-310,311,320 and 321] to NSA Closed	12
TOP 2-90-4 - "D" Moisture Separator Reheater Reheat Steam Isolation	13
Isolation of Reheater Drain Receiver Level Gauges [2HDDH-LG100A,B,C,D] and Moisture Separator Drain Receiver Level Gauges [2HDDH-LG115A,B,C,D]	14

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Operating Procedures</u> (Continued)	<u>Page</u>
Isolation of First, Third, Fourth, Fifth Point Feedwater Heater Level Gauges [2FWS-LG-103A,B, 120A,B, 122A,B, AND 124A,B]	15
TOP 2-89-37 - "Temporary Filter Installation Across Startup Feed Pump Lube Oil Coolers"	16
OM 2.30.4.L - "SWS Silt and Corbiculate Control Part A, Flushing SWS Pumps Seal Water Supply Line	17
TOP 2-89-36 - "Flushing the SW Pumps Seal Water Supply Lines"	18
OM 2.30.4L - "SWS Silt and Corbiculate Control Part B Flushing Rod Control Area ACU	19
Failed Relay 69-FWSNB	20
TOP 2-89-38 - "SWS Back Flushing of CCP HX'S"	21
OST 2.30.20 - "CCP Hx Performance Trending and RSS Hx Dry Layup Check - Part B"	22
TOP 2-90-7 - "Recirculation of [2WTD-TK23] Through a Temporary Dimineralizer for Cleanup"	23
Temporary Modification - Defeat of [2HVP-ACU211A & B] Low Temperature Trip	24
TOP 2-90-8 - "Removal of Reheat Steam to [2MS'-H21B]"	25
Temporary Modification - Jumper Across Failed Open Limit Switch on [2CCP*AOV107C]	26
OM 2.9.4H - "Aligning the Main Steam Valve Room and Instrument Air Compressor Floor Drains to Catch Basin 23"	27
TOP 2-90-11 - "Bypass of Instrument Air Dryer and Receiver"	28
TOP 2-90-17 - "[2FPD-TK22] CO ₂ Purge to Allow Valve Maintenance"	29
TOP 2-90-14 - "[2FPD-TK23] CO ₂ Purge to Allow Valve Maintenance"	30
OM 2.6.4W - "Isolating a Reactor Coolant Loop"	31

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Operating Procedures (Continued)</u>	<u>Page</u>
2TOP 90-15 - "[2CSS-E21A, B] Turbine Plant CCS Hx Turbine Side Performance Verification"	32
2TOP 90-25 - "Containment Backup Fire Protection During Type "C" Testing"	33
2TOP-90-23 - "Supplying both SWS Headers with One SWS Pump"	34
OM 2.11.4.C - "Filling Reactor Refueling Cavity"	35
2TOP-90-21 - "High-Volume Air Supply to Containment"	36
OM 2.6.4W - "Isolating a Reactor Coolant Loop"	37
2TOP-90-10 - "Moisture Separator Reheater Tube Leak Test"	38
2TOP-90-13 - "Temporary Aux Steam Supply to Turbine Lube Oil Coolers"	39
OM 2.6.4D - Fill of an Isolated RCS Loop, 2.6.4.N - Reactor Coolant System Isolated Loop Recovery	40
Temporary Modification - Install Proximity Limit Switches in Series with the Electrical and Mechanical Torque Switches for the Fuel Transfer Cart	41
2OM-51.4.D - "Station Shutdown - Cooldown from Hot Shutdown (Mode 4) to Cold Shutdown (Mode 5)"	42
 <u>Maintenance Procedures</u>	
Security Computer System Multiplexor Board Modification	44
Disable CCW Hi Flow Closure Logic to 2RCS-P21C Thermal Barrier Flow Valve 2CCP-AOV107C for Corrective Maintenance	45
Defeating Hi CCW Flow Close Signal to RCS-P21A Thermal Barrier Isolation Valve 2CCP-AOV107A for Performance of 2LCP-15-F107A During Mode 5 or 6 or for Corrective Maintenance in an Operating Mode	46
Defeating Hi CCW Flow Close Signal to RCS-P21B Thermal Barrier Isolation Valve 2CCP-AOV107B for Performance of 2LCP-15-F107B During Mode 5 or 6 or for Corrective Maintenance in an Operating Mode	47

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Operating Procedures (Continued)</u>	<u>Page</u>
Defeating Hi CCW Flow Close Signal to RCS-P21C Thermal Barrier Isolation Valve 2CCP-AOV107C for Performance of 2LCP-15-F107C During Mode 5 or 6 or for Corrective Maintenance in an Operating Mode	48
480V Bus 2H Ground Alarm Relay	49
480V Bus 2F Ground Alarm Relay	50
Temporary Installation of Gag on 2CNM-RV151	51
Temporary Installation of Gag on 2CNM-RV115	52
Temporary Repair of 2SVS-PCV101B Shaft Coupler	53
Temporary Modification of 2GWS-315	54
Temporary Modification to Turbine Turning Gear and Bearing Lift Oil Pump Aux Relay Circuit TMJND	55
480V Bus 2D Ground Alarm Relay	56
Temporary Power for Turbine Generator Overhaul	57
Connecting Recording Equipment to Operating Equipment	58
Vendor Procedures for Hydrolasing 1" & 1 1/2" SWS Supply and Return Lines to Sample Coolers for 2SWS-RQI100 A, B, C, & D in Emergency Diesel Generator Buildings	59
Supplying Temporary Trailers Sprinkler System from Turbine Building Fire Suppression System	60
Cross Tie Between MCC-2-E05 and MCC-2-E06 during 2R Only	61
Temporary Modification to Hook Up a Flush Rig Between 2HVC-ACV201A(B) SWS Cooling Coils and Associated SWS Supply and Discharge Piping	62
Temporary Power for Cooling Tower Work During 2R	63
Source Range High Flux at Shutdown Alarm Modification	64
Temporary Modification for Flush of 2HVC-ACV207A & L	65
Temporary Steam Supply from Aux Steam Valve 2ASS-646 to Temporary Flush Rig in PAB	66

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Facility Changes</u>	<u>Page</u>
<u>Design Change</u>	
DCP-851, Elimination of Vibration on MSR Scavenging Vent Condenser Piping	67
DCP-881, Gland Steam Exhauster and Filtration System	69
DCP-899, Diesel Generator Backup Phase Fault Detection	71
DCP-905, Rev. 0, Steam Generator Blowdown Sample Sodium Analyzer Replacement	73
DCP-907, Rev. 1, Computer Status Valve Position Indication	74
DCP-963, Enhancement of the Turbine Plant Sample System	76
DCP-979, Rework Vendor Supplied "PVC" Jacketed Cables for Radiation Monitor Printers	78
DCP-1046, Provide Oil Fill Capability to Reactor Coolant Pump Motors	80
DCP-1049, Auxiliary Feed Pump Steam Drain Valves	82
DCP-1063, Relocate Fire Hose Rack No. HR-243 and Provide Supports	83
DCP-1078, Disabling the Auto Dispatching System (ADS Function)	84
DCP-1130,, Rev. 0, Temporary Reactor Vessel Head Shielding for Unit No. 2	86
DCP-1135, Rev. 0, BV-2 Small Bore Snubber Optimization	89
DCP-1160, Rev. 0, Provide Heat Tracing for the Pump/Heater Assembly of WTD-TK23 and the Sensing Line for 2WTD-LT107	91
DCP-1195, Rev. 0, Instrument Air Dryer Coalescent Pre-Filters	93
DCP-1237, Rev. 2, DRMS Modifications to Prevent Bad Data Quality Indication on ERFCS/SPDS Displays	95
DCP-1265, Rev. 0, Relocation of Level Switches 2FWS-LS*04A/B	97

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Facility Changes (Continued)</u>	<u>Page</u>
<u>Design Change</u>	
DCP-1275, Rev. 1, S/G Primary Manways Bolt to Stud Conversion	99
DCP-1286, Rev. 0, 2MSS*AOV101A,B,C C/NC Contact Modification	101
DCP-1313, Rev. 0, Sprinklers for Turbine Building Pedestals and Amertap Condenser Pit	103
DCP-1314, Rev. 0, Ground Test Circuit for Bus 2-5 and Bus 2-6	105
DCP-1321, Rev. 0, Annunciator Window A8-6B, "Heat Tracing System Trouble"	107
DCP-1328, Rev. 0, Inadvertent Actuation of SSPS Outputs	109
DCP-1336, Rev. 0, Nuclear Instrumentation System Source Range High Voltage Cutoff	111
DCP-1339, Rev. 0, C/NC Contract Indication	114
DCP-1356, Rev. 0, 2CHS*P21A and C Vents	116
DCP-1360, Rev. 0, Installation of New Liners Under 2HDH-P21A&B	118
DCP-1364, Rev. 1, Rod Position Deviation Alarm	120
DCP-1366, Rev. 0, Removal of Brace from Duct Support 2HVP-DSA684N	122
DCP-1371, Rev. 0, Replace Existing 2DGS-300 Globe Valve with a 2" Gate Valve	124
DCP-1390, Rev. 0, Containment Air Recirc Fans 2HVR-FN201A and 2HVR-FN210B Status	126
DCP-1403, Rev. 0, 2RCS*M V 535 and 536 OPEN/NOT OPEN Contact Indication	128
DCP-1440, Rev. 0, Main Unit Generator Seal Oil System Drain and Vent Valve Addition	131
DCP-1456, Rev. 1, DRMS, RM-11 Software Revisions	133
DCP-1469, Rev. 0, RTD Bypass Manifold Elimination	136

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments

Table of Contents

<u>Facility Changes (Continued)</u>	<u>Page</u>
<u>Design Change</u>	
DCP-1498, Rev. 2, RWST LO-LO Bistables	138
DCP-1500, Rev. 0, Steam Generator Blowdown Drain Line	140
DCP-1502, Rev. 1, Unit 2 Modifications for Heat Exchangers Performance Monitoring	142
DCP-1545, Rev. 0, Replacement of Diesel Generator 2-1 and 2-2 Automatic Loading Sequence Timer Relays	144
DCP-1567, Rev. 0, Replacement of Recirculation Spray Pump Timer/Relays	146
DCP-1576, Rev. 0, Fuel Transfer Tube Blind Flange Modification	148
DCP-1589, Rev. 0, Steam Generator Level	150
<u>Technical Evaluation Report (TER)</u>	
TER-1144, Rev. 0, Change of QA Category for PAL Hydraulic System	152

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments
Page 1 of 152

CHANGE TITLE

Cycle 2 Extension

CHANGE DESCRIPTION

An extension of Cycle 2 was desired to permit a September 1, 1990 shutdown date for 2R.

SAFETY EVALUATION SUMMARY

A Westinghouse evaluation of the Cycle 2 extension was performed which endorsed the results of the evaluation previously performed for the Cycle 1. Additionally, Duquesne Light performed a review of FSAR and Technical Specification changes that had been issued subsequent to the Cycle 1 safety evaluation. It was determined that no changes were made that would affect the validity of the previous evaluation. Thus, the Cycle 2 extension did not pose an unreviewed safety question. No Technical Specification changes are required. No FSAR changes are required.

CHANGE TITLE

Alarm Setpoint Change To 2SSR-RQ1100 and Change To UFSAR 10.4.8.3
and 11.5.2.5.9

CHANGE DESCRIPTION

In order to minimize spurious steam generator blowdown isolation (n.b., ESF activation), the alarm setpoints for monitor 2SSR-RQ1100 were revised. The previous HIGH setpoint was set at $1.0E-5$ uCi/ml. This level is close to the observed background. The $1.0E-5$ uCi/ml value is now used for the ALERT alarm (no automatic actions), and a value based on T/S effluent releases used for the HIGH alarm. The UFSAR changes involve correcting references of sampling on a HIGH alarm to refer to the ALERT alarm instead.

SAFETY EVALUATION SUMMARY

The safety evaluation concluded that the operative criterion was the $1.0E-5$ uCi/ml value, not that this value was assigned as a HIGH alarm. The existing alarm response procedures and the EOPs are keyed to sample results that indicate $1.0E-5$ uCi/ml. The sampling is triggered by either an ALERT or HIGH alarm. The Turbine Building sump is isolated, by procedure, at activity levels exceeding $1.0E-5$ uCi/ml. Blowdown isolation occurs automatically at a level equivalent to effluent T/S's. Based on this, the safety evaluation concluded that there would be no increase in the offsite radiological consequences of an SGTR. Since the alarm setpoint is a software database item, there is no feasible failure mode associated with this change and, therefore, no increase in probability of such events.

CHANGE TITLE

OM 2.19.4.1 "CLEARING GWS OVERHEAD GAS COMPRESSOR"

CHANGE DESCRIPTION

A new procedure was developed to purge the Overhead Gas Compressor [GWS-21A(B)] of hydrogen gas (using nitrogen) prior to maintenance and to purge the compressor of oxygen (using nitrogen) after maintenance.

SAFETY EVALUATION SUMMARY

The Gas Compressor [GWS-C21A(B)] is isolated from the gaseous waste system and placed on clearance so that purging the compressor will not cause a malfunction of the gaseous waste system. The compressor is non-safety related and no other safety related equipment is located in the cubicle. Any radioactive gas released in the PAB will be processed by PAB ventilation and the SLCR system. The amount of radioactive gas purged in the procedure is a small fraction of the volume assumed in UFSAR 15.7.1. The purging operation is performed to ensure the oxygen and hydrogen concentrations are within Technical Specification 3.11.2.6 limits. No unreviewed safety questions exist.

CHANGE TITLE

TEMPORARY MODIFICATION - INSTALLATION OF TEMPORARY PRESSURE GAUGE AT
[PDI-1RW-109]

CHANGE DESCRIPTION

A temporary pressure gauge was installed at [PDI-1RW-109] to perform procedure 2.30.4L, SWS Silt and Corbicula Control. The installed pressure gauge PSID range is too large for the procedure.

SAFETY EVALUATION SUMMARY

The temporary gauge is isolated by [1WR-220] and [2SWE-220]. This will ensure all minimum flow requirements per UFSAR 14.3 (Unit 1) and 9.22 (Unit 2) are met. All equipment important to safety will continue to be supplied by minimum flow requirements while [1WR-220] and [2SWE-220] are closed. No unreviewed safety questions exist.

CHANGE TITLE

NORMAL SYSTEM ARRANGEMENT CHANGE FOR [2SAS-41 AND 43]

CHANGE DESCRIPTION

The NSA for valves [2SAS-41 and 43], "Station Air Compressor Manifold to Backup Supply to Condensate Polishing Building Air", and "Station Air Backup Supply Isolation", were changed from closed to open.

SAFETY EVALUATION SUMMARY

UFSAR 9.3.1.1.3 and 9.3.1.2.3 state that station air and condensate polishing air are not required for safe plant shutdown. If control air is lost, valves will fail in the safe position (per UFSAR 6.2.4.1), therefore the consequences of an accident will not be increased. Per UFSAR 9.3.1.1.2, instrument air isolates from station air on low pressure; opening [2SAS-41 and 43] allows condensate polishing air to be quickly supplied to the station air header. No unreviewed safety questions exist.

CHANGE TITLE

OST 2.24.9 "OVERSPEED TRIP TEST OF TURBINE DRIVEN AFW PUMP [2FWE*P22]"

CHANGE DESCRIPTION

A new test was developed to demonstrate the operability of the overspeed trip mechanism of the turbine driven AFW pump [2FWE*P22]. This test was generated in response to IE Notice 88-67 and INPO's SOER 89-1.

SAFETY EVALUATION SUMMARY

The AFW system will not be affected by this test since [2FWE*P22] is closed for the test, and the two other trains of AFW pumps remain operable; therefore, the accidents described by UFSAR 15.2.6, 15.2.7, 15.2.8, 15.6.3, 15.6.4 and 15.6.5 are not affected. The turbine driven AFW pump [2FWE*P22] is intentionally made inoperable by the test, however, this is allowed by UFSAR 10.4.9. The probability loss of auxiliary feed water accidents discussed in UFSAR 15.9.3 and 15.9.4 is not increased since these accidents assume [2FWE*P22] is not available. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-1 "TRANSFERRING RESIN FROM 55 GALLON DRUMS TO A HIC AT UNIT 2 WASTE HANDLING BUILDING TRUCK BAY"

CHANGE DESCRIPTION

A new temporary procedure was developed to charge and dewaste 55 gallon drums of spent resin at Unit 2 Waste Handling Building Truck Bay Area.

SAFETY EVALUATION SUMMARY

The portable pumps, 55 gallon drums and the HIC do not connect to the RWST and hence will not affect the assumptions used in UFSAR 15.7.3. Any spill would be enveloped by UFSAR 15.7.3. No safety related equipment is used or located in the area of resin transfer and dewatering operation. Transferring resin from drums to a HIC will not violate Technical Specification 3.11.3.1. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-2 "CHARGING PUMP LINES HYDROGEN ACCUMULATION TEST"

CHANGE DESCRIPTION

A new temporary procedure to isolate the operating charging pump miniflow isolation valve was written to that Engineering can perform a test to detect the accumulation of hydrogen.

SAFETY EVALUATION SUMMARY

The charging pump will perform its ESF and ECCS function upon SIS actuation and satisfy the assumptions of UFSAR 15.1.4, 15.1.5, 15.2.8, 15.4, 15.5 and 15.6 since the miniflow valve is closed in its SIS actuation position. In the event the charging pump will automatically start upon an SI signal as designed and provide adequate core cooling (UFSAR 6.3.2). The procedure requires an operator to monitor pump and motor parameters to detect the onset of a malfunction while the miniflow valve is closed. Closing the miniflow valve will not render the charging pump incapable of performing its intended function in accordance with Technical Specification 3.1.2.4 nor will it violate the boration flow path requirements of Technical Specification 3.1.2.2. No unreviewed safety question exist.

CHANGE TITLE

TOP 2-88-26, Revision 1 "HEAD CAPACITY CURVE AND BASE LINE DATA COLLECTION
FOR CCP PUMP [2CCP*P21A,B,C] TEST"

CHANGE DESCRIPTION

An existing TOP has been revised to operate and test the CCP system while [2CCP*DCV100-1,2] Unit 2 CCP pump recirculation valves are closed or isolated. (The valves are currently out of service). The valves help maintain minimum CCP pump discharge flow by controlling differential pressure across the CCP pumps.

SAFETY EVALUATION SUMMARY

UFSAR 15 accident analysis states that following an analyzed event initiation, a reactor trip occurs and possibly an SIS or CIB. The RCS is then cooled to hot standby by AFW or Safety Injection. The function of CCP system (UFSAR 9.2.2.1) is to supply sufficient cooling water to enable a cold shutdown by RHR. This is a long term function and not short term following the event. Although UFSAR Table 3.9B-19 places these valves in a safety category, UFSAR 9.22 mentions the function of the valves, but does not indicate that they are safety related. The CCP system operation will occur as described in UFSAR 9.2 except for isolation of the recirculation line. The line serves no other function to the CCP pumps (i.e., bearing cooling or seal water). No unreviewed safety questions exist.

CHANGE TITLE

TEMPORARY MODIFICATION - GAGGED [2CNM-RV-100A]

CHANGE DESCRIPTION

[2CNM-J21A] Air Ejector Inlet Relief Valve, [2CNM-RV-100A] has excessive seat leakage. This temporary modification installs a gag in the relief valve until repairs can be made.

SAFETY EVALUATION SUMMARY

[2CNM-RV-100A] protects condensate piping on "A" air ejector. When it is isolated, failure of this piping will not affect any accident. The condensate system overall integrity will not be challenged because other overpressurization protection exists. No unreviewed safety questions exist.

CHANGE TITLE

OST 2.15.3 and 4 "CCP VALVE POSITION VERIFICATION"

CHANGE DESCRIPTION

The CCP valve position verification OSTs were revised to eliminate [2CCP*DV100-1,2] inlet, outlet and instrument root valves. [2CCP*DV100-1,2] (CCP Pump Recirculation Valves) are closed or isolated. The summary of safety evaluation evaluates operation with [2CCP*DCV100-1,2] closed or isolated.

SAFETY EVALUATION SUMMARY

UFSAR 15 accident analysis states that following an analyzed event initiation, a reactor trip occurs and possibly an SIS or CIB. The RCS is then cooled to hot standby by AFW or Safety Injection. The function of CCP system (UFSAR 9.2.2.1) is to supply sufficient cooling water to enable a cold shutdown by RHR. This is a long term function and not short term following the event. Although UFSAR Table 3.9B-19 places these valves in a safety category, UFSAR 9.22 mentions the function of the valves, but does not indicate that they are safety related. The CCP system operation will occur as described in UFSAR 9.2 except for isolation of the recirculation line. The line serves no other function to the CCP pumps (i.e., bearing cooling or seal water). No unreviewed questions exist.

CHANGE TITLE

ISOLATION OF [2GNS-PCV101A,B] BY CHANGING [2GNS-310,311,320 AND 321] TO NSA CLOSED

CHANGE DESCRIPTION

Degasifier Hydrogen Supply Headers Pressure Regulators [2GNS-PCV100A and B] leak by and cannot be repaired. As a means of isolation, Degasifier Hydrogen Supply Isolation Valves [2GNS-310,311,320 and 321] were changed from NSA open to closed.

SAFETY EVALUATION SUMMARY

Isolation of hydrogen purge will not effect UFSAR 11.3.1 design requirements of 10CFR50 Annex to Appendix I. Isolation of H₂ purge is also bound by UFSAR 15.7.1. Gaseous Waste compressors will still shut down on high oxygen concentration as described in UFSAR 11.3.1. Purging will take place by manually opening of the isolation valve. Isolating hydrogen purge will not effect oxygen monitor described by Technical Specification 3.3.3.10. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-4 "D" MOISTURE SEPARATOR REHEATER REHEAT STEAM ISOLATION

CHANGE DESCRIPTION

A new temporary procedure was generated to isolate reheat steam to the "D" MSR to reduce MSR tube damage and to reduce the probability of turbine blade damage from tubing debris.

SAFETY EVALUATION SUMMARY

Isolating reheat steam will not impact any turbine trip function and will not increase the consequences should the turbine fail to trip as described in UFSAR 15.0, 15.1 and 15.2. Steam entering the low pressure turbine will be superheated from the "C" MSR and does not create an unanalyzed accident as described in UFSAR 10. No unreviewed safety questions exist.

CHANGE TITLE

ISOLATION OF REHEATER DRAIN RECEIVER LEVEL GAUGES [2HDH-LG100A,B,C,D] AND
MOISTURE SEPARATOR DRAIN RECEIVER LEVEL GAUGES [2HDH-LG115A,B,C,D]

CHANGE DESCRIPTION

Isolation valves for [2HDH-LG100A,B,C,D] and [2HDH-LG115A,B,C,D], Reheat Drain Receiver and Moisture Separator Drain Receiver local gauges were changed from NSA open to closed.

SAFETY EVALUATION SUMMARY

Control Room indications and alarms will remain operable while these local indicators are isolated. All equipment upstream of the feedwater isolation valves are not safety related per UFSAR 10.4.7.2. The local gauges will be available to be valved in on an as-needed basis. Moisture separator performance is unaffected with these gauges isolated. No unreviewed safety questions exist.

CHANGE TITLE

ISOLATION OF FIRST, THIRD, FOURTH, FIFTH POINT FEEDWATER HEATER LEVEL GAUGES
[2FWS-LG-103A,B, 120A,B, 122A,B, AND 124A,B]

CHANGE DESCRIPTION

Isolation valves for [2FWS-LG-103A,B, 120A,B, 122A,B, and 124A,B], 1st, 3rd, 4th and 5th point feedwater heaters were changed from NSA open to closed.

SAFETY EVALUATION SUMMARY

UFSAR 10.4.11.3 states that extraction steam has no safety function and its failure will have no effect on the equipment. Control Room indications and alarms will remain unaffected while these local indicators are isolated. The local gauges will be available to be valved in on an as-needed basis. Feedwater heater performance will be unaffected with the gauges isolated. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-89-37 "TEMPORARY FILTER INSTALLATION ACROSS STARTUP FEED PUMP LUBE OIL COOLERS"

CHANGE DESCRIPTION

A new temporary procedure was generated to place in service, operate and remove from service a temporary sidestream filter. The filter is necessary to assist in cleanup of the Turbine Plant Component Cooling Water System.

SAFETY EVALUATION SUMMARY

The components used will have the same or greater rating as design, therefore it would be equivalent to that previously evaluated in UFSAR 3.4 and 9.2.7. The temporary filter will provide for cleanup of the system to reduce any possibility of a malfunction of equipment. The filter is installed in parallel with the permanent filter, maintaining that component's availability. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.30.4.L "SWS SILT AND CORBICULATE CONTROL PART A, FLUSHING SWS PUMPS SEAL
WATER SUPPLY LINE

CHANGE DESCRIPTION

A new procedure was developed to flush the bypass seal water line using filtered water. The filtered water will be supplied from a temporary hose connected from the sand filter pump discharge to the inlet of [2SWS*83A(B)]. The flush is to be performed to remove silt and clam embryos. This procedure is based in part on TOP 2-89-36, "Flushing the SW Pumps Seal Water Supply Lines".

SAFETY EVALUATION SUMMARY

A review of UFSAR 15 determined that no accident was evaluated that would be initiated by a loss of service water pumps. UFSAR 14.1.14 (Unit 1) takes credit for the flood proof doors of intake structure. The procedure contains a caution that if the river elevation approaches 730 ft., the procedure for flushing should be terminated so the jumper used for flushing will not block the flood door. The SW pump may be operated during the flushing operation as described in UFSAR 9.2 with the exception that seal water will be provided by a temporary hose. The procedure requires the opposite train to be operable prior to starting the flush to satisfy Technical Specification 3.7.4.1. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-89-36 "FLUSHING THE SW PUMPS SEAL WATER SUPPLY LINES"

CHANGE DESCRIPTION

A new temporary procedure was generated to flush the service water pumps seal water supply lines using filtered water to remove silt and clam embryos.

SAFETY EVALUATION SUMMARY

A review of UFSAR 15 determined that no accident was evaluated that would be initiated by a loss of service water. UFSAR 14.1.1.4 (Unit 1) takes credit for flood proof doors of the intake structure cubicles. The procedure contains a caution to terminate the procedure if river water level approaches 730 feet and to remove the flush hose. The procedure uses non-radioactive water to flush non-radioactive SWS pump seals. A temporary block will be installed on [2SWS-AOV118A(118B)] to block open the valve to ensure seal water will be supplied when [2SWS*SOV130A (130B)] is de-energized to open. This will ensure the SWS pump will receive normal seal water during various flushes. The procedure requires the opposite train to be operable prior to the flush to satisfy Technical Specification 3.7.4.1. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.30.4L "SWS SILT AND CORBICULATE CONTROL PART B FLUSHING ROD CONTROL AREA
ACU

CHANGE DESCRIPTION

A new procedure was developed to flush the rod control area air conditioning unit cooling coils supplied from service water system using demineralized water. The coils are normally isolated and are flushed to remove any silt or clam embryos.

SAFETY EVALUATION SUMMARY

In the event the rod control area ACU failed during the procedure, the assumptions used in UFSAR 15.7.1 would remain valid and the accident would be enveloped by UFSAR 15.7.1. In the event the temporary hose failed, the demineralized water would be collected by floor drains. The rod control area ACU are 100% capacity units. In the event an emergency occurred, the non-flushed ACU would automatically start and perform its function as described in UFSAR 9.4.12.2. The service water system will be capable of performing its function as required by Technical Specification 3.7.4.1.

CHANGE TITLE

FAILED RELAY 69-FWSNB

CHANGE DESCRIPTION

Plant desires continued operation with relay 69-FWSNB, on the main feedwater pumps low suction/oil pressure trips, failed until relay can be repaired.

SAFETY EVALUATION SUMMARY

Loss of feedwater flow/reduced flow will not effect reactor trip function assumed in UFSAR 15.2.7.1. All of the main FWS safety functions described by UFSAR 10.4.7.3 are unaffected. The APWS ensures a sufficient supply of cooling water for safe shutdown. The condensate and non-safety related portions of FWS are automatically isolated from the steam generator within 5 seconds following a FWI signal. This signal is unaffected and will continue to trip the FW pumps. The Aux FW Pump automatic actions described by UFSAR 15.2.6.1 are also unchanged. The Aux FW pumps and flow path described by Technical Specification 3.7.1.2 are unaffected. Also, the FWI signal described by Technical Specification 3.3.2.1 is unaffected. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-89-38 "SWS BACK FLUSHING OF CCP HX'S"

CHANGE DESCRIPTION

A new TOP was generated to backflush any CCP heat exchanger on the SWS side to dislodge clams or debris.

SAFETY EVALUATION SUMMARY

The procedure does not alter or reduce performance of the CCP and SWS systems that could increase probability of accidents described in UFSAR 15. Only one CCP heat exchanger can be isolated by procedure (while in modes 1-4). This ensures that the other two heat exchangers are in service to remove heat loads described by UFSAR 9.2.1 and 9.2.2. In modes 5 & 6 at least one CCP heat exchanger will remain in service. In the event any activity is detected by CCP or SWS radiation monitors, a step in the procedure instructs an operator to close the drain valve of the heat exchanger being flushed. The margin of safety described by Technical Specifications 3.7.3.1 and 3.7.4.1 are maintained during this procedure. No unreviewed safety questions exist.

CHANGE TITLE

OST 2.30.20 "CCP Hx PERFORMANCE TRENDING AND RSS Hx DRY LAYUP CHECK - PART B"

CHANGE DESCRIPTION

A new procedure was generated to check RSS heat exchanger service water inlet piping for accumulation of water.

SAFETY EVALUATION SUMMARY

Opening drain isolation supply to RSS Coolers valve [2SWS*906] to check for drainage cannot physically effect the tanks considered for radioactive release by UFSAR 15.7.3. In the vent [2SWS*906] could not be closed and water continued to drain, the water would be collected in floor drains and directed to safeguards sumps. The service water system is operated as described by UFSAR 9.2, except for the opening of [2SWS*906, 104]. General Design Criteria 46 permits functional testing of components to ensure leak tightness. The procedure contains a caution to close [2SWS*104] prior to starting a RSS pump, should an ESF actuation occur, so the concerns for entry into Technical Specification 3.03 can be avoided. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-7 "RECIRCULATION OF [2WTD-TK23] THROUGH A TEMPORARY DEMINERALIZER FOR
CLEANUP"

CHANGE DESCRIPTION

A new temporary procedure was developed to cleanup and recirculate demineralized water storage tank [2WTD-TK23] through a temporary demineralizer train and supply demineralized water to system demand.

SAFETY EVALUATION SUMMARY

Should a temporary hose rupture, the hose is isolable. Pumps will automatically trip on low discharge pressure to prevent rapid pump down of [2WTD-TK23]. A hose rupture is enveloped by flood analysis. Safety related systems are not involved and the temporary hose is not routed through any safety related area. No Technical Specification are involved. No unreviewed safety questions exist.

CHANGE TITLE

TEMPORARY MODIFICATION - DEFEAT OF [2HVP-ACU211A & B] LOW TEMPERATURE TRIP

CHANGE DESCRIPTION

A defective volume booster [2HVP-TX21] prevent proper operation of temperature switches [2HVP-TS21A & B]. This prevents the Auxiliary Building and Waste Handling Building Air Handling Units [2HVP-ACU211A & B] from operating. Leads were lifted on temperature switches [2HVP-TS21A & B] to allow operation of [2HVP-ACU211A & B].

SAFETY EVALUATION SUMMARY

Defeating the low temperature trip on [2HVP-ACU211A & B] may increase the possibility of a failure of the air conditioning heating coils. However, [2HVP-ACU211A & B] are not safety related and are not required for accidents as described by UFSAR 9.4.3, 9.4.3.1, 9.4.3.2. Additionally no Technical Specification are involved. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-8 "REMOVAL OF REHEAT STEAM TO [2MSS-H21B]"

CHANGE DESCRIPTION

A new temporary procedure was developed to isolate the "B" MSR by removing high pressure reheat steam. Isolation of the MSR is necessary due to leaking tube bundles which could result in increased tube damage and turbine blade damage.

SAFETY EVALUATION SUMMARY

Isolating reheat steam will not impact any turbine trip function and will not increase the consequences should the turbine fail to trip as describe in UFSAR 15.0, 15.1 and 15.2. Steam entering the low pressure turbine will be superheated from the "A" MSR and does not create an unanalyzed accident as described in UFSAR 10. No Technical Specifications are affected by this procedure. No unreviewed safety questions exist.

CHANGE TITLE

TEMPORARY MODIFICATION - JUMPER ACROSS FAILED OPEN LIMIT SWITCH ON
[2CCP*AOV107C]

CHANGE DESCRIPTION

Reactor Coolant Pump Thermal Barrier Supply Valve [2CCP*AOV107C] has dual indication and will not stay open. A jumper was placed across the open limit switch so the valve will stay open.

SAFETY EVALUATION SUMMARY

[2CCP*AOV107C] is required to close on high pressure or high flow to safely contain high reactor coolant pressure as described by UFSAR 9.2.2.1.3. The automatic closure of [2CCP*AOV107C] is unaffected by the temporary modification and will still close on high flow or pressure. No Technical Specifications are affected since the valve will function to isolate CCP system from high pressure reactor coolant as designed. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.9.4H "ALIGNING THE MAIN STEAM VALVE ROOM AND INSTRUMENT AIR COMPRESSOR
FLOOR DRAINS TO CATCH BASIN 23"

CHANGE DESCRIPTION

A new procedure was generated to align the Main Steam Valve Room (MSVR) and Containment Instrument Air Compressor (IAC) floor drains to catch basin 23 [CB-23]. This will allow non-radioactive floor drains to be directed to the catch basin instead of being processed in the liquid waste system.

SAFETY EVALUATION SUMMARY

Aligning floor drains to catch basin 23 does not modify plant systems. The alignment uses installed valves and piping provided for this purpose. Aligning the floor drains to catch basin 23 will not affect the performance of any safety related system. After the floor drains are aligned, Radcon will sample at least shiftly for radioactivity in the drains. If radioactive content of the drains exceeds limits, then steps are provided to return the floor drains to the tunnel sump. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-11 "BYPASS OF INSTRUMENT AIR DRYER AND RECEIVER"

CHANGE DESCRIPTION

A new temporary procedure was generated to bypass instrument air dryer and receiver in order to perform maintenance work on valves and to install a new filter under DCP 1354. Reduced capacity will be available to both instrument air and station air. Instrument air quality will be degraded.

SAFETY EVALUATION SUMMARY

No safety systems are involved. All components are in the Turbine Building where missile generation from a rupture type failure will not cause damage to any safety related equipment. The procedure is not to be performed in Modes 1, 2, 3 or 4 so that loss of air would not cause a loss of feedwater control or closing of the main steam stop valves. No Technical Specifications are affected by this procedure. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-17 "[2FPD-TK22] CO₂ PURGE TO ALLOW VALVE MAINTENANCE"

CHANGE DESCRIPTION

A temporary procedure was generated to prepare 10 Ton CO₂ Unit [2FPD-TK22] for valve maintenance. Temporary piping will be installed to depressurize the unit to a CO₂ truck. Blank flanges will be installed so that the 24 Ton Backup CO₂ Unit can be placed in service while maintenance is being performed.

SAFETY EVALUATION SUMMARY

The 2 tank is isolated from the system prior to depressurization through temporary piping. Failure of the piping will not affect the remaining system. The flange is installed so that the Backup 24 ton CO₂ unit can function as its designed to protect the areas served by the system. Fire watches will be implemented when the flange is being installed. Fire protection is not Technical Specification related. No unreviewed safety questions exist.

CHANGE TITLE

TOP 2-90-14 "[2FPD-TK23] CO₂ PURGE TO ALLOW VALVE MAINTENANCE"

CHANGE DESCRIPTION

A temporary procedure was generated to prepare 10 Ton CO₂ Unit [2FPD-TK23] for valve maintenance. Temporary piping will be installed to depressurize the unit to a CO₂ truck. Blank flanges will be installed so that the 24 Ton Backup CO₂ Unit can be placed in service while maintenance is being performed.

SAFETY EVALUATION SUMMARY

The CO₂ tank is isolated from the system prior to depressurization through temporary piping. Failure of the piping will not affect the remaining system. The flange is installed so that the Backup 24 Ton CO₂ Unit can function as designed to protect the areas served by the system. Fire watches will be implemented when the flange is being installed. Fire protection is not Technical Specification related. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.6.4W "ISOLATING A REACTOR COOLANT LOOP"

CHANGE DESCRIPTION

An initial condition in procedure 2.6.4W, "Isolating a Reactor Coolant Loop", which requires the primary grade low pressure alarm to be operable, was eliminated. This procedure requires all dilution water supply to the boric acid blender to be closed and administratively controlled. This lineup eliminates the possibility of the primary grade water alarm from being an indicator of a dilution accident.

SAFETY EVALUATION SUMMARY

This change reduces the probability of a dilution accident described in UFSAR 15.4.6. The procedure requires [2CHS-27 and 91] to be isolated and administratively controlled: as a result there is no effect on safety system performance and places the plant in a more conservative condition. This change places the plant in a configuration which is required by Technical Specification 3.9.1, 3.1.9.2 and 3.3.11. No unreviewed safety questions exist.

CHANGE TITLE

2TOP 90-15 "[2CSS-E21A, B] TURBINE PLANT CCS Hx TURBINE SIDE PERFORMANCE
VERIFICATION"

CHANGE DESCRIPTION

A new temporary procedure was generated to throttle the CCS heat exchanger SWS outlet valve to obtain several D/P's and corresponding flows. This information provides data to the Engineering Department to evaluate heat exchanger performance. The procedure installs temporary pressure indicators to allow for more accurate data.

SAFETY EVALUATION SUMMARY

No systems that are safety related are affected by this procedure. Any failure of temporary pressure indicators can be easily isolated if necessary. Failure of the temporary pressure indicators cannot initiate any design basis accident. No technical Specifications are affected by this new procedure. No unreviewed safety questions exist.

CHANGE TITLE

2TOP 90-25 "CONTAINMENT BACKUP FIRE PROTECTION DURING TYPE "C" TESTING"

CHANGE DESCRIPTION

A temporary procedure was developed to connect a temporary hose from fire hydrant H-12 to a temporary valve manifold attached to Containment Hose Rack [HR-268]. This will provide backup fire protection to the containment hose racks when normal supply of protection water is not available due to type "C" testing.

SAFETY EVALUATION SUMMARY

No safety systems are affected by this change. Fire protection water is still available to containment hose racks through the temporary modification. Failure of the temporary hose is enveloped by UFSAR 9.5.1.2.3.2. The RHR/Penetration and CNMT Iodine Filter Fire Protection Systems are still available and unaffected by this procedure. Failure of the temporary modification will not affect plant response since the plant is shutdown during the performance of this procedure and backup fire protection is available. Fire protection is not Technical Specification related. No unreviewed safety questions exist.

CHANGE TITLE

2TOP-90-23 "SUPPLYING BOTH SWS HEADERS WITH ONE SWS PUMP"

CHANGE DESCRIPTION

A new temporary procedure was developed to allow one operable SWS header to supply water to the opposite header in order to facilitate partial SWS header clearances of the priority train header during Modes 5 and 6. The priority train SWS or SWE pump will supply the operable diesel generator, charging pump and inservice CCP heat exchanger.

SAFETY EVALUATION SUMMARY

A loss of service water is not probable since standby SWS is available or another SWS pump is available to supply SWS flow. The valves used in the procedure are administratively controlled to maintain a "hardened" train of SWS flow for operable components. SWS and CCP cooling to RHR systems are continuously maintained by priority train SWS header, hence no increase of occurrence of DBA will occur. Priority train SWS flow is maintained to the operable diesel generator and charging pump cooler to meet Technical Specification 3.8.1.2 and 3.8.2.2. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.11.4.C "FILLING REACTOR REFUELING CAVITY"

CHANGE DESCRIPTION

Procedure OM 2.11.4.C, "Filling Reactor Refueling Cavity" was revised to allow opening a loop stop valve while the reactor vessel is defueled and the water level in the vessel is less than loop elevation. This will allow water to enter a loop and fill the loop as the water level is being raised in the reactor vessel.

SAFETY EVALUATION SUMMARY

Filling the vessel, loop and cavity will not affect assumptions and radiological consequences of the fuel handling accident described by UFSAR 15.7.4, since all of the fuel is in the spent fuel pool with no fuel in the reactor vessel. Filling the loop while filling the cavity will not affect the fuel in the spent fuel pool. Loop stop valve vendor stated that opening the valves when no water exists in the loop will not damage the valves and is permitted. Seal injection flow will be provided to the RCP in the loop to be filled when water level is less than 3 feet below the flange. Technical Specification 3.4.9.3 is not affected by this procedure. No unreviewed safety questions exist.

CHANGE TITLE

2TOP-90-21 "HIGH-VOLUME AIR SUPPLY TO CONTAINMENT"

CHANGE DESCRIPTION

A new temporary procedure was written to install, operate and remove a temporary modification which supplies high volume compressed air to containment during periods in which containment integrity may be established for refueling operations. This air supply is provided for normal station air uses during refueling outage.

SAFETY EVALUATION SUMMARY

During refueling operations only single isolation is required. Any single failure of this modification will not prevent containment isolation in the event of a refueling accident. The temporary air compressor configuration is considered a closed pressurized system, thus not providing a pathway from containment to outside and satisfying the basis of Technical Specification 3.9.4. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.6.4W "ISOLATING A REACTOR COOLANT LOOP"

CHANGE DESCRIPTION

Part B was added to procedure OM 2.6.4W, "Isolating a Reactor Coolant Loop" to provide instructions to allow the isolation of all three reactor coolant loops to allow flexibility in plant configuration for maintenance during refueling outages.

SAFETY EVALUATION SUMMARY

This procedure change closes the third reactor coolant loop to the reactor vessel. This reduces the water volume available to mitigate a dilution accident, however, the procedure requires that the refueling cavity be filled to greater than 23 feet above the reactor vessel flange to provide a large volume of borated water to mitigate a dilution. Site Engineering has determined that RCS loop volume is not required if the reactor cavity contains greater than 23 feet of water, and is bound within the accident analysis of UFSAR 15.4.6 and the standard review plan. No Technical Specifications are affected. No unreviewed safety questions exist.

CHANGE TITLE

2TOP-90-10 "MOISTURE SEPARATOR REHEATER TUBE LEAK TEST"

CHANGE DESCRIPTION

A new temporary procedure was generated to locate small leaks in the Moisture Separator Reheater (MSR) tube bundle after large leaks have been found and repaired by an air test. The MSR head chamber is filled with demineralized water. Air will be drawn by vacuum into the leaking valves and visually observed.

SAFETY EVALUATION SUMMARY

A rupture of water supply hose or failure of temporary MSR manway cover would be enveloped by assumptions of the flood analysis. The Test (demineralized) water is not potentially radioactive. No Technical Specifications are affected by this change. The MSR is not inservice during test and will not be overpressurized. No unreviewed safety questions exist.

CHANGE TITLE

2TOP-90-13 "TEMPORARY AUX STEAM SUPPLY TO TURBINE LUBE OIL COOLERS

CHANGE DESCRIPTION

A new temporary procedure was written to install and remove temporary tubing to supply auxiliary steam to the turbine lube oil coolers. The steam will be used for warming and agitation of the cleaning fluid being used on the lube oil side of the coolers. The steam condensate and cleaning fluid will be removed from the coolers and lube oil reservoir by subsequent cleaning and oil flushing.

SAFETY EVALUATION SUMMARY

The temporary line does not connect to or is located in close proximity to any safety related equipment. The temporary line and failure of the line will not effect the steam jet air ejector radiation monitor. Therefore the radiation monitor will function to alert the operator of a steam generator tube failure. Auxiliary steam is normally non-radioactive, if the line ruptured steam would be collected by turbine building sumps. The radiation monitors and HELB trip valves will function as described by UFSAR 10.4.10. No unreviewed safety questions exist.

CHANGE TITLE

OM 2.6.4D "FILL OF AN ISOLATED RCS LOOP, 2.6.4.N REACTOR COOLANT SYSTEM
ISOLATED LOOP RECOVERY"

CHANGE DESCRIPTION

Procedures OM 2.6.4.D and 2.6.4N were revised to recover the RCS loop if all three loops were isolated. A recent change has been made to OM 2.6.4.W, "Isolating a Reactor Coolant Loop", to allow isolating all three loops.

SAFETY EVALUATION SUMMARY

All dilution paths are isolated by procedure and Technical Specification 3.9.1, therefore a dilution described by UFSAR 15.4.6 is not assumed to occur. The procedures must be performed prior to draining down the reactor cavity to less than 23 feet above the reactor vessel flange. An engineering analysis determined that plant conditions fall within the bounds of dilution accidents analyzed by UFSAR 15.4.6 and the Standard Review Plan. This change does not impact Technical Specification 3.9.1 or 3.1.2.9. No unreviewed safety questions exist.

CHANGE TITLE

TEMPORARY MODIFICATION - INSTALL PROXIMITY LIMIT SWITCHES IN SERIES WITH THE ELECTRICAL AND MECHANICAL TORQUE SWITCHES FOR THE FUEL TRANSFER CART

CHANGE DESCRIPTION

Due to the extreme difficulty in adjusting the electrical torque switch for the fuel transfer cart during operation (which is not functioning correctly) a new control interlock was installed in series with the proximity switch.

SAFETY EVALUATION SUMMARY

Failure of the fuel transfer cart to travel will not change any assumptions or consequences of a fuel handling accident. Failure of the cart to travel will not impact the manipulator crane, fuel fueling crane or cause the fuel pool to drain to uncover spent fuel. No Technical Specifications are affected. No unreviewed safety questions exist.

CHANGE TITLE

20M-51.4.D "STATION SHUTDOWN - COOLDOWN FROM HOT SHUTDOWN (MODE 4) TO COLD SHUTDOWN (MODE 5)

CHANGE DESCRIPTION

The Unit 2 Gaseous Waste Disposal System (GWDS) alignment per procedure 20M-51.4.D Attachment 1 will purge hydrogen and RCS fission gasses, following plant shutdown to Mode 5 conditions, using permanent installed Nitrogen supply equipment, permanent plant GWDS piping and normal flow paths as described in UFSAR 11.3.2, from the PRZR, PRT, VCT, degasifiers to the GWDS delay beds, then through the GWDS surge tank to either Unit 1 GWS decay tanks or Unit 2 GWS storage tanks for processing. When hydrogen (H_2) and fission gasses levels are less than requirements of approved Radcon calculation package ERS-ATL-90-019 (Rev. 0), then the delay beds exhaust is rerouted to the sweep gas system for continuous exhausting to Unit 1 GWS exhaust during the plant outage. The overhead gas compressors and GWS surge tank will be isolated and pressurized with a temporary nitrogen (N_2) gas bottle (with proper rigging).

This alignment of the delay beds to the sweep gas system will reduce waste gas storage and processing using the gaseous waste disposal system during plant outages. This new technique of removal of RCS nitrogen gasses and fission gasses during outages will significantly reduce waste gas volume to the GWDS storage tanks and allows utilizing the sweep gas system to dispose nitrogen gasses from the RCS, in compliance with radiological requirements of the BV-2 Technical Specifications.

SAFETY EVALUATION SUMMARY

When waste gas through the above listed GWDS flow path to the delay beds has hydrogen (H_2) levels less than 4% and gaseous activity less than requirements of the approved Radcon calculation package, then the delay beds exhaust is rerouted to sweep gas system for continuous exhausting to Unit 1 GWS exhaust, until the H_2 blanket is to be restored to the VCT, PRT and PRZR in accordance with procedure OM-2.6.4.E "Fill and Venting of RCS". This continuous purge will also be terminated if Unit 1 rad monitor (RM-1GW-108A, 108B or 109) sensing Unit 2 sweep gas stream alarm at high or high-high setpoint. This continuous GWDS discharge path is different from that described in UFSAR 11.3.2.1, which describes GWDS discharge being directed to either Unit 1 GWS decay tanks or Unit 2 GWDS storage tanks. No significant increase of radioactivity to the environment will occur, since procedure 20M-51.4.D attachment 1 ensures the requirements and assumptions of approved Radcon calculation package are met. The approved Radcon calculation package ensures all UFSAR 11.3.1 and 11.3.2 bases and design analysis are met, and ensures radiological effluent releases are less than 0.001% of the Tech Spec effluent release requirements. Therefore the results of this calculation package are within the boundaries set forth in the BV-2 Environmental Protection Report and BV-2 Tech Specs. No significant change in effluents activity levels will occur while discharging GWDS gasses to the sweep gas system in accordance with 20M-51.4.D attachment 1.

The oxygen (O_2) monitors for the surge tank will not be capable of performing their automatic function of stopping the gas compressors on detection of high O_2 in the surge tank, as described in UFSAR section 11.3.1. However according to Attachment 1 of procedure 20M-51.4.D.

The probability of the event described in UFSAR 15.0.2, 15.7.1 and 11.3 will not be increased for the following reasons. Malfunction of rad monitor [2GWS-RQI103] is normally addressed by Operating Manual alarm response procedure and Radcon procedures. To ensure radioactive effluent releases to atmosphere via sweep gas system are within Tech Spec limits, any increase of gaseous activity occurring in Unit 2 GWDS flow path will be detected by Unit 1 rad monitors [RM-1GW-108A, 108B or 109] and procedure 2OM-51.4.D attachment 1 and the caution tags affixed to those rad monitor indications will require this GWDS alignment to be promptly directed back to the GWDS surge tank to the Unit 2 GWDS storage tanks or Unit 1 GWS decay tanks for normal processing until the activity levels are returned to their previous levels required by Attachment 1 in the Unit 2 GWDS.

The changes to this procedure ensure the RCS and GWDS are purged of H_2 and radioactive gasses, so that the safety margin of basis of Tech Specs 3.11.2.6 and 3.11.2.1 are maintained. The overhead gas compressors and GWS surge tank will be isolated and pressurized with a temporary nitrogen (N_2) gas bottle (with proper rigging), thus avoiding a potential explosive environment in the surge tank, when H_2 gas is restored to the GWDS during plant startup in accordance with procedure OM-2.6.4.E. The temporary jumper is installed and maintained in accordance with the requirements of approved station administrative procedure NGAP 7.4 "Temporary Modifications". The temporary modification will not challenge the design of the GWDS piping or surge tank, therefore no failure of the GWDS should occur.

The procedure ensures the PRT rupture disks will remain intact by ensuring PRT pressure stays between < 65 psig and > 0 psig during the purging and drain down of the PRT, VCT and degasifiers. In addition the PRZR is purged when PRZR temperature is less than 200F, so that the PRZR-RCS 200F delta-T limit is not exceeded, since this purging process will cause PRZR surge line insurges and outsurges. All of the GWDS equipment utilized by this procedure is operated within its design functions as described in UFSAR 11.3.2.

In summary, it was determined that no unreviewed safety questions are involved with this safety evaluation.

CHANGE TITLE

Security Computer System Multiplexor Board Modification

CHANGE DESCRIPTION

Changes were made to the DI and CR boards in each multiplexor. This was to correct an outstanding deficiency and to make the system perform as originally designed.

SAFETY EVALUATION SUMMARY

This change affects only the security system computer. There is no interaction with any system or component important to safety. No unreviewed safety question is involved. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Disable CCW Hi Flow Closure Logic to 2RCS-P21C Thermal Barrier Flow Valve
2CCP-AOV107C for Corrective Maintenance

CHANGE DESCRIPTION

This was a one time only procedure change to 2LCP-15-F107C which is Component Cooling Water Reactor Coolant Pump (2RCS-P21C) Thermal Barrier Flow Loop 2CCP-F107C Calibration. This change prevented the C Reactor Coolant Pump Thermal Barrier Flow Valve 2CCP-AOV107C automatic closure due to HIGH flow signal from 2CCP-F107C loop which was out of service for corrective maintenance. The system was returned to NSA after maintenance was completed.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since, although the CCW loop Hi Flow instrumentation is inoperable during maintenance, the CCW flow is maintained to the thermal barrier. Hi pressure and hi temperature signals to the valve are maintained. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since the system function is maintained by hi pressure and hi temperature signals and process radiation monitoring. No Technical Specification bases are affected since the component cooling water system remains in operation. Since this is a temporary modification, no changes to the FSAR are required.

CHANGE TITLE

Defeating Hi CCW Flow Close Signal to RCS-P21A Thermal Barrier Isolation Valve 2CCP-AOV107A for Performance of 2LCP-15-F107A During Mode 5 or 6 or for Corrective Maintenance in an operating Mode

CHANGE DESCRIPTION

This change was made to allow the procedure to be performed for corrective maintenance purposes only during plant modes 1, 2, 3, or 4. The loop would be considered out of service and not operable. These same changes also allow performance in modes 5 or 6 without cycling isolation valve 2CCP-AOV107A. Double verification is used to connect and disconnect the jumper wire.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since, although the CCW loop Hi Flow instrumentation is inoperable during maintenance, the CCW flow is maintained to the thermal barrier. Hi pressure and hi temperature signals to the valve are maintained. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since the system function is maintained by hi pressure and hi temperature signals and process radiation monitoring. No Technical Specification bases are affected since the component cooling water system remains in operation. Since this is a temporary modification, no changes to the FSAR are required.

CHANGE TITLE

Defeating Hi CCW Flow Close Signal to RCS-P21B Thermal Barrier Isolation Valve 2CCP-AOV107B for Performance of 2LCP-15-F107B During Mode 5 or 6 or for Corrective Maintenance in an Operating Mode

CHANGE DESCRIPTION

This change was made to allow the procedure to be performed for corrective maintenance purpose only during plant modes 1, 2, 3, or 4. The loop would be considered out of service and not operable. These same changes also allow performance in modes 5 or 6 without cycling isolation valve 2CCP-AOV107B. Double verification is used to connect and disconnect the jumper wire.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since, although the CCW loop Hi Flow instrumentation is inoperable during maintenance, the CCW flow is maintained to the thermal barrier. Hi pressure and hi temperature signals to the valve are maintained. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since the system function is maintained by hi pressure and hi temperature signals and process radiation monitoring. No Technical Specification bases are affected since the component cooling water system remains in operation. Since this is a temporary modification, no changes to the FSAR are required.

CHANGE TITLE

Defeating Hi CCW Flow Close Signal to RCS-P21C Thermal Barrier Isolation Valve 2CCP-AOV107C for Performance of 2LCP-15-F107C During Mode 5 or 6 or for Corrective maintenance in an Operating Mode

CHANGE DESCRIPTION

This change was made to allow the procedure to be performed for corrective maintenance purposes only during plant modes 1, 2, 3, or 4. The loop would be considered out of service and not operable. These same changes also allow performance in modes 5 or 6 without cycling isolation valve 2CCP-AOV107C. Double verification is used to connect and disconnect the jumper wire.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since, although the CCW loop Hi Flow instrumentation is inoperable during maintenance, the CCW flow is maintained to the thermal barrier. Hi pressure and hi temperature signals to the valve are maintained. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since the system function is maintained by hi pressure and hi temperature signals and process radiation monitoring. No Technical Specification bases are affected since the component cooling water system remains in operation. Since this is a temporary modification, no changes to the FSAR are required.

CHANGE TITLE

480V Bus 2H Ground Alarm Relay

CHANGE DESCRIPTION

This temporary modification was made to restore redundant dual feed capacity to the substation as no relays were available to replace ground alarm relay (74-RH200).

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because no systems important to safety are affected by this temporary modification. For the same reason, the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created. No Technical Specification bases are affected by this change. No changes to the FSAR are required.

CHANGE TITLE

480V Bus 2F Ground Alarm ' lay

CHANGE DESCRIPTION

This temporary modification was made to restore redundant dual feed capacity to the substation as no relays were available to replace ground alarm relay (74-RF200).

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because no systems important to safety are affected by this temporary modification. For the same reason, the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created. No Technical Specification bases are affected by this change. No changes to the FSAR are required.

CHANGE TITLE

Temporary Installation of Gag on 2CNM-RV151

CHANGE DESCRIPTION

Relief valve 2CNM-RV151 lifted during plant trip and would not reseal. A gag was installed to seat the valve. Over pressure protection of the feedwater suction piping was provided by relief valves 2CNM-RV150A and 2CNM-RV150B.

SAFETY EVALUATION SUMMARY

Due to redundant relief valves on the system, this temporary modification does not create an unreviewed safety question. The operation of systems important to safety are unaffected. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Temporary Installation of Gag on 2CNM-RV115

CHANGE DESCRIPTION

Relief valve 2CNM-RV115 lifted during plant trip and would not reseal. A gag was installed to seat the valve. This is a bonnet relief valve for 2CNM-23 which remained NSA and was manipulated as needed. System protection was provided by 2CNM-RV150B.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since this bonnet relief valve is not required by code and the gagging of the valve will not affect the operation of 2CNM-23. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because neither system parameters nor operation are not affected by this modification. No Technical Specification bases are affected by this change. No changes to the FSAR are required.

CHANGE TITLE

Temporary Repair of 2SVS-PCV101b Shaft Coupler

CHANGE DESCRIPTION

Due to unavailability of spare coupler and long delivery lead time, a temporary coupler was fabricated per EM 65213 so that the valve could be returned to service.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since the installation of the temporary coupler allows equipment to be restored to normal operating conditions. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since the temporary coupler is structurally and functionally equivalent to the permanent coupler. No Technical Specification bases are affected by this change. No FSAR changes are required.

CHANGE TITLE

Temporary Modification of 2GWS-315

CHANGE DESCRIPTION

The disc spring was removed from 2GWS-315, a Velan 3/4" piston lift check valve. This was done because normal system flowrate and velocity could not overcome spring force causing trap 2GWS-TRP21 to overflow and 2GWS-LS101 to alarm in the Control Room.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since no safety systems are affected by this change. The possibility of an accident or malfunction of a different type than previously evaluated in the FSAR is not created since the only credible failure mode of this modification would not prevent normal system operation. No Technical Specification bases are affected by this change. No FSAR changes are required.

CHANGE TITLE

Temporary Modification to Turbine Turning Gear and Bearing Lift Oil Pump Aux Relay Circuit TMJND

CHANGE DESCRIPTION

Pressure switch contact 2TMT-PS, 63RLD-2 "2TMJ-P212 Norm. Disch. Press." in turning gear aux relay circuit TMJND was jumpered out. This was to prevent trip of turning gear on low discharge pressure on Lift Oil Pump 2TMJ-P212. Normal setpoint for low discharge pressure of this pump is 600 psig. This temporary modification allowed continued turning gear operation at any discharge pressure. Operations monitored Control Room indication of operating pump every two hours and local indication was monitored once a shift to verify pump operating and discharge pressure of at least 600 psig.

SAFETY EVALUATION SUMMARY

This change affects the turbine turning gear subsystem only. There is no interaction with any system or component important to safety. No unreviewed safety question is involved. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

480V Bus 2D Ground Alarm Relay

CHANGE DESCRIPTION

This temporary modification was made to restore redundant dual feed capacity to the substation as no relays were available to replace ground alarm relay (74-RD200).

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because no systems important to safety are affected by this temporary modification. For the same reason, the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created. No Technical Specification bases are affected by this change. No changes to the FSAR are required.

CHANGE TITLE

Temporary Power for Turbine Generator Overhaul

CHANGE DESCRIPTION

Temporary power was supplied from 480VUS 2-6, Compt 3D to power equipment on the turbine deck for 2R.

SAFETY EVALUATION SUMMARY

This change provides temporary non-1E power to the turbine deck during the refueling outage. There is no interaction with any system or component important to safety. No unreviewed safety question is involved. No Technical Specification bases are affected by this change. No change to the PSAR is required.

CHANGE TITLE

Connecting Recording Equipment to Operating Equipment

CHANGE DESCRIPTION

This safety evaluation was for a new procedure to install, control, evaluate, and remove recording equipment to monitor plant parameters while equipment is in service. The procedure is generic.

SAFETY EVALUATION SUMMARY

As stated above, this procedure is generic. Controls within the procedure require that a failure analysis be performed for each application of the procedure. These controls will ensure that no unreviewed safety question is created by the use of this procedure. No Technical Specification bases are affected by this procedure. No change to the FSAR is required.

CHANGE TITLE

Vendor Procedures for Hydrolasing 1" & 1 1/2" SWS Supply and Return Lines to Sample Coolers for 2SWS-RQI100 A, B, C, & D in Emergency Diesel Generator Buildings

CHANGE DESCRIPTION

This safety evaluation allowed the cleaning of these fouled lines during operation (Mode 1) to lessen the impact on the outage schedule.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because the diesel generators will remain operable during the cleaning procedure. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since any credible failure during the operation would not result in the loss of more than one diesel generator. No Technical Specification bases are affected by this procedure. No FSAR changes are required.

CHANGE TITLE

Supplying Temporary Trailers Sprinkler System from Turbine Building Fire Suppression System

CHANGE DESCRIPTION

A 1" valve (2FPN-96) was removed and replaced with a 2" temporary valve which facilitated the connection for supplying fire suppression water to the Westinghouse trailers sprinkler system. The trailers were located on the Unit 2 Turbine Peck.

SAFETY EVALUATION SUMMARY

This change affects only the fire suppression system. There are no systems or components important to safety affected by this change. Failure of the temporary system would not result in the loss of the entire system. No unreviewed safety question is involved. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Cross Tie Between MCC-2-E05 and MCC-2-E06 during 2R Only

CHANGE DESCRIPTION

A cross tie was made between MCC-2-E05 and MCC-2-E06 for power to battery chargers 1 and 2 and the UPS 1, 2, 3, and 4 so PM activities could be performed on 8N and 9P transformers during 2R.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created since this temporary modification maintains redundant backup power to the chargers and UPSs. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since any credible failure would not result in the loss of more than one train. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Temporary Modification to Hook Up a Flush Rig Between 2HVC-ACV201A(B) SWS Cooling Coils and Associated SWS Supply and Discharge Piping.

CHANGE DESCRIPTION

The inlet and outlet nozzles were removed on 2HVC-ACV201A(B) and a temporary flush rig was connected up between ACV and SWS system supply and discharge piping. Flush was performed to a TOP, an MWR, and EMS 65132 & 65254.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because partial failure of the SWS is analyzed and no credit is taken for any of the involved equipment during a design basis accident. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since partial failure of SWS piping is already evaluated. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Temporary Power for Cooling Tower Work During 2R

CHANGE DESCRIPTION

Temporary power was supplied from MCC-2-24 spare breakers 3F and 5F to power equipment on or near the cooling tower during 2R.

SAFETY EVALUATION SUMMARY

This change provides non-1E power for cooling tower work during the refueling outage. There are no systems or components important to safety affected by this change. No unreviewed safety question is involved. No Technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Source Range High Flux at Shutdown Alarm Modification

CHANGE DESCRIPTION

A solid state timer was added to relays NC31CX and NC32CX to provide a variable time delay in order to suppress spurious containment evacuation alarms caused by the upender operation.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because this change affects only the non-safety related portion of the nuclear instrumentation system. For the same reason, the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created. No Technical Specification bases are affected by this modification. No changes to the FSAR are required.

CHANGE TITLE

Temporary Modification for Flush of 2HVC-ACV207A & B

CHANGE DESCRIPTION

The inlet and outlet SWS nozzles were removed on 2HVC-ACV207A & B and a temporary flush rig was connected up between ACV and SWS system supply and discharge piping. Flush was performed to 2TOP-90-18, an MWR, and EMS 65556 & 65254.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because partial failure of the SWS is analyzed and no credit is taken for any of the involved equipment during a design basis accident. The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created since partial failure of SWS piping is already evaluated. No technical Specification bases are affected by this change. No change to the FSAR is required.

CHANGE TITLE

Temporary Steam Supply from Aux Steam Valve 2ASS-646 to Temporary Flush Rig in PAB

CHANGE DESCRIPTION

A temporary hose with a regulator was hooked up to Aux Steam valve 2ASS-646 to supply steam to the temporary flush rig heat exchanger to heat MCC cooler chemical flush water.

SAFETY EVALUATION SUMMARY

The probability or consequences of an accident described in the FSAR will not be increased or created because failure of this non-safety related equipment is bounded by the analysis of the ability for equipment in the area to withstand a steam leak due to failure of auxiliary steam system piping. For the same reason, the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created. No Technical Specification bases are affected by their change. No changes to the FSAR are required.

CHANGE TITLE

DCP-851, Elimination of Vibration on MSR Scavenging Vent Condenser Piping

CHANGE DESCRIPTION

The Moisture Separator Reheaters (MSRs) condense main steam to superheat the steam discharged from the high pressure turbine prior to its entering the low pressure turbine. In order to maintain effective heat transfer capability, the reheater must be vented to remove noncondensable gases. The Steam Vent System (SVS) piping, which vents the MSRs to the first point heaters or the condenser, vibrates excessively. This excessive vibration could cause damage to system components.

A temporary jumper (3-21-1B) was issued on 11/30/90 to temporarily restrain the piping system. This vibration problem was recognized by the NED in 1987, and the SWEC was contacted for engineering assistance. The SWEC then determined that the piping was in violation of the vibration criteria 2BVM-158, and subsequently issued E&DCR D-5490-501 to correct the problem. Part of the vibration has been corrected per E&DCR D-5490-501, but part of the work scope was never incorporated into the final design drawings or stress reports.

This DCP shall incorporate the work done under E&DCR D-5490-501, and modify or install additional supports to reduce the vibration level on the scavenging steam vent piping from the MCRs. The piping will meet the applicable design stress limits.

This DCP will maintain the reliability, integrity and operability of the Steam Vent System (SVS) and will have no adverse effects on any other equipment.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP because this DCP does not adversely affect any safety or non-safety systems, does not exacerbate any existing accidents, and does not introduce any new hazard beyond that already considered in the UFSAR.

This DCP will not adversely affect the safety function of any system. This DCP will only affect non-safety related supports and piping (indirectly). The reliability, integrity, and operability of the SVS will be maintained and no other systems will be affected.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability, integrity, and operability of the SVS, and it will have no effect on any other equipment; therefore, no probabilities of occurrences of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP is minor and the change will have no effect on any other equipment. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability, integrity, and operability of the SVS is being maintained.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP is minor and the changes will not adversely affect any equipment, including the SVS.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety used to mitigate all accident. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the fundamental design features and functions of the equipment have not been significantly altered. This is a relatively minor change.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the reliability, integrity, and operability of the SVS will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. This DCP is minor and the reliability, integrity, and operability of the SVS will be maintained. The fundamental design features and functions will not be changed in a way that creates the possibility of a malfunction of a different type. This DCP only affects non-safety related supports and piping (indirectly).

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specifications bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications because the reliability, integrity, and operability of the SVS will be maintained, and no other equipment will be affected.

This DCP will not require any changes to the technical specifications.

This DCP will not require any changes to the UFSAR.

CHANGE TITLE

DCP-881, Gland Steam Exhauster and Filtration System

CHANGE DESCRIPTION

The purpose of this modification is to reduce the amount of moisture from the Turbine Gland Steam Condenser that collects in the Gland Steam Exhaust Filters. This is to be accomplished by installation of a passive moisture separator upstream of the filter inlets and by insulating the piping between the moisture separator outlet and the filter banks' inlet to prevent further condensation of moisture in the system. The drains collected by the moisture separator will be returned to the existing drains system of the Gland Steam Condenser. The charcoal filters work best when the relative humidity of the air passing through them is less than 70%; however, the filter banks have been flooding due to the high moisture content. This moisture reduces the effectiveness of the charcoal filters in removing radioactive effluents from the air. This modification will serve to remove this moisture and return it to the condenser.

SAFETY EVALUATION SUMMARY

The probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the BVPS-2 Final Safety Analysis Report (FSAR) is not increased. This modification does not alter the flow path of the Gland Seal Steam Exhaust system other than the installation of the moisture separator. No alternations to any instrumentation and control or radiation monitoring equipment are planned. This modification will allow the system to operate as described in Section 9.4.15 of the BVPS-2 FSAR. This modification will also allow for isolation of the non-operating train by installation of isolation dampers at the inlet and outlet of each train to allow for safer maintenance of the unit.

The possibility for an accident or malfunction of a different type than previously evaluated in the BVPS-2 FSAR is not created. The modification will improve the margin of safety by removal of moisture from the Gland Steam Exhaust air to allow more efficient operation of the charcoal filters. Also, the drains collected by the moisture separator will be returned to the Gland Steam Condenser drains, which will drain back to the main condenser, thus preserving the original intent of the system. Gland Steam Exhaust Fan startup procedures will ensure that the isolation dampers modification will be open during startup of the fans and prevent damage to the filter being placed in service and thus prevent an accidental release of radioactive materials to the environment. Therefore, no new accident situations are created.

No Technical Specifications are affected by this modification. The margin of safety of any Technical Specification is not decreased, and no changes to the Technical Specifications are required.

A change to the BVPS-2 UFSAR is required by this change. The description of the Gland Seal Steam Exhaust System in Section 9.4.15 will need to be revised to reflect the addition of the moisture separator. Figure 9.4-16 needs to be revised to show the location of the moisture separator, the moisture separator drain line, and the isolation dampers. The moisture separator and the isolation dampers need to be added to Table 9.4-25.

CHANGE TITLE

DCP-899, Diesel Generator Backup Phase Fault Detection

CHANGE DESCRIPTION

This modification is to install four Westinghouse type SKD-T distance relays to provide backup fault protection for diesel generators in compliance with Reg. Guide 1.9/1979 and to replace the installed SP relays which are not qualified and presently bypassed. To make the SKD-T relays functional to satisfy the coincident logic on a per train basis, (2) ITE-50D overcurrent relays and (2) AR auxiliary relays are also required to be installed.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because this modification will provide coincident logic to prevent spurious diesel trips. Consequently, the reliability of the onsite emergency power supply will be increased. When the preferred power source is not available, the onsite emergency power supply feeds power to reactor protection instrumentation and control systems and to other Class 1E components and systems essential for safe reactor operation and shutdown.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because all relays to be installed will be designed to maintain the physical and electrical independence required of safety-related systems. The failure mode and effects analysis (FMEA) will be considered when designing the phase fault protection circuitry to ensure the single failure criteria is met.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety report will not be increased because this modification will provide backup phase fault protection and ensure that spurious signals will not prevent the diesel generator from performing its functions.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because this modification meets the requirement of Reg. Guide 1.9, Rev. 2, 1979, Section 7, that a diesel generator trip shall be implemented with two or more independent measurements for each trip parameter under all plant conditions. Any single failure does not disable both diesel generator units or their auxiliary systems.

The design basis accidents which were reviewed for potential impact by the proposed design change included loss of offsite power.

The safety systems which will be affected by the proposed design change include onsite power systems.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because the original diesel protection scheme failed to include (2) relays per train to satisfy the coincident logic. This modification will correct that problem and adhere to the required separation criteria of Reg. Guide 1.75.

The possibility for a malfunction of equivalent important to safety of a different type than previously evaluated in the safety analysis report will not be created because this modification will increase the reliability of the diesel generator. All relays will be QA Category I and seismic analysis will be performed to reassures the added weights to PNL*REL243/253 and 4KV switchgear cubicles 2E9 and 2F9.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the installation of backup phase fault protection will provide a more reliable emergency power supply system.

The proposed design change will require change to the technical specifications. Amendment to the Technical Specification Section 4.8.1.1.2.b.4 has been submitted to the NRC on 6-30-88 for approval.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-905, Rev. 0, Steam Generator Blowdown Sample Sodium Analyzer Replacement

CHANGE DESCRIPTION

Existing Leeds & Northrup Sodium Analyzers for the Steam Generator Blowdown samples require a supply of anhydrous ammonia to each analyzer for calibration and proper operation during normal sampling. However, the ammonia gas escapes the sample chamber of the sodium units, fills the casing of the analyzer and fills the sample cubicle. This condition constitutes a safety hazard to personnel within the cubicle. In addition, the ammonia gas being removed by the ventilation within the cubicles will accelerate charcoal degradation of the SLCRS filter beds. This modification will replace the existing L&N sodium analyzers mounted to the Reactor Plant Sample Panel 2SSR-PNL21 with new Orion Research Model 1811LL Analyzers locate external to the sample panel.

SAFETY EVALUATION SUMMARY

The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the final safety analyses report are not increased. Replacing the existing L&N sodium analyzers with Orion Research Analyzers and relocating them outside the sample panel will not increase the probability of occurrence or the consequences of an accident or malfunction as evaluated in the safety analysis report. This modification will ensure the original design intent is met for the primary sample system Steam Generator Blowdown samples without introducing any additional safety concerns or hazards.

The possibility for an accident or malfunction of a different type than any evaluated is previously in the final safety analysis report is not created. The new equipment being installed will not affect any safety related system regardless of system or component failure. This modification will not create or increase the possibility for an accident or malfunction different than previously evaluated in the FSAR. Implementing this modification will enhance system operability of the sampling system without compromising system design or increase potential safety hazards to personnel operating the equipment.

The margin of safety as defined in the basis for any technical specification is not reduced. The SGB samples are not defined in the bases of the Technical Specification and hence are not a consideration. This design change will not affect any components or systems that are defined in the Tech Specs. No Technical Specification changes will be required.

This modification will require a change to the Updated Final Safety Analysis Report, Figure 9.3-7.

CHANGE TITLE

DCP-907, Rev. 1, Computer Status Valve Position Indication

CHANGE DESCRIPTION

The Safety Parameter Display System (SPDS) provides a concentrated display of a minimum set of parameters which define the safety status of the plant. The SPDS is a function of the Emergency Response Facility (ERF) computer system. The ERF computer system obtains its database from the Plant Computer System (PCS) database.

The SPDS has been subjected to a Verification and Validation (V&V) program to assure its adequacy. A plant-specific evaluation of BVPS-2 has resulted in the determination of the specific parameters to be displayed and they are listed in WCAP-10710. The WCAP-10170 is referenced in UFSAR Section 18.2.1 and is part of the V&V requirement.

The SPDS currently receives an open/not open indication for the following valves: 2FPW*AOV204, 205, 206, and 221. The WCAP requires a closed/not closed indication for these valves, and there is a licensing commitment to correct the indication prior to restart from the 2R outage. This DCP will eliminate the open/not open indication (which is not required) and provide the closed/not closed indication.

This will be accomplished by rewiring in the limit switches and junction boxes, adding cable where needed (2FPW*AOV206 already has a spare), removing the BISCO seals, and changing the PCS and ERF computer system databases. The Brady wire markers in the Limit Switch Open (LMO) will also be corrected.

One additional change will be made to the PCS and ERF computer system databases to show correct indication for 2CCP-MOV112A. Field conditions provide an open/not open signal for this valve, the databases will be corrected to indicate the same, the current indication is incorrect (closed/not closed). Indication for this valve is not required by SPDS per WCAP-10170.

No operating parameters of the Fire Protection System (FPW) or the Primary Component Cooling Water System (CCP) will be affected by this change. The above changes will only affect the indication for these valves. There will be no effect on valve operability or reliability. Removal of the BISCO seals requires a change to the environmental qualification design parameters for the FPW valve limit switches.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP.

No BVPS Unit 2 safety systems will be affected by this DCP. This DCP will not adversely affect the performance of the limit switches and as described in the EQR. Compliance with 10CFR50.49 Guidelines are maintained. This is BVPS Unit 2 commitment for EG after initial license.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability and performance of the SPDS, and it will not alter equipment in a way such that accidents are more credible; therefore, no probabilities of occurrence of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability and performance of the SPDS is being maintained.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. The probability is not increased by following the present station commitment understood by NRC and Licensing. That commitment is 10CFR50.49. The EQR referenced in FSAR Section 3.11 was only for initial license submittal. The present methodology maintains required conservatism. The present methodology does not require the original submitted EQR commitment to protect public health and safety or any NRC commitment. Accepting 10CFR50.49 methodology, the OSC agrees the probability of a malfunction of equipment important to safety is not increased. Reduction in previous conservatism is acceptable to the NRC if 10CFR50.49 is correctly implemented and documented.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

No new credible failure modes are created by this design change in accordance with 10CFR50.49.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the reliability and performance of the SPDS will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR is not created. Although the limit switches are no longer EQ'd per the original EQR, the malfunction is analyzed per present BVPS-2 commitment to 10CFR50.49.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications, including 3/4.6.3.1, because the reliability, integrity and operability of the SPDS will be maintained. No Technical Specification changes are required.

The UFSAR Section 3.11 will be updated to state the new basis for the methodology of determining environmental service conditions.

CHANGE TITLE

DCP-963, Enhancement of the Turbine Plant Sample System

CHANGE DESCRIPTION

The Chemistry Department requested that several modifications be performed on the Turbine Plant Sample System to improve the performance and sampling capability. The modifications include the following:

- 1) Addition of a grab sample port on the effluent of the cation columns. This is necessary to perform cation conductivity, chlorides and sulfates analyses.
- 2) An addition of a grab sample port for chilled water to provide the capability of easily obtaining samples.
- 3) Replacement of the existing sodium analyzer. This new analyzer will be identical to the sodium analyzers installed in the Primary Plant Sample System. Additionally, it will not release any ammonia gas or any other hazardous material to the environment.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. The Turbine Plant Sample System performs no safety-related functions and its failure will not result in any previously evaluated accidents.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because the failure of the Turbine Plant Sample System will not result in any accidents previously evaluated.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. As stated in UFSAR Section 9.3.2.2.3, any failure of the Turbine Plant Sampling System equipment will not affect the safety functions of other equipment.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the failure of the equipment being installed under this design change will not affect the safety function of other equipment.

No design basis accidents were found to be potentially impacted by the proposed design change.

No safety systems will be affected by the proposed design change.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because all of the modifications being performed will be within the turbine plant sample panel located in the Turbine Building, and will not perform any safety-related functions.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because this design change does not involve any safety-related equipment. Moreover, the equipment being installed is located in a non-seismic area and will meet the design temperature and pressure requirements.

Failure modes of the proposed design change which were reviewed included piping and valve failures, and earthquake generated missiles.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the Turbine Plant Sample System is not addressed. No Technical Specification changes are required.

UFSAR Figure 9.3-9 will require a revision to show the proposed modifications.

CHANGE TITLE

DCP-979, Rework Vendor Supplied "PVC" Jacketed Cables for Radiation Monitor Printers

CHANGE DESCRIPTION

The objective of this design change is to add protective cable wrap, Sil-Temp, to two vendor supplied PVC jacketed cables. The cables to be wrapped are in the control room between radiation monitor printer 2RMS-PNTR-1 and interface terminal cabinet 2RMS-TB-1, and radiation monitor printer 2RMS-PNTR-2 and interface terminal cabinet 2RMS-TB-1. BVPS-2 UFSAR Section 8.3.1.4.2 requires minimum separation distances between redundant Class 1E cables and between Class 1E cables and non-Class 1E cables. The problem is that the above mentioned non-Class 1E cables pass through a trough under both the orange and purple train radiation monitor cabinets. If, for example, the orange train cables caught fire and ignited one of the above neutral train cables, it is conceivable that the flames could spread to the purple train or vice-versa. To preclude such a scenario, a protective wrap of woven silicon dioxide (trade name: Sil-Temp) and glass tape are to be installed on the neutral cables to protect the adjacent Class 1E cables from electrically induced problems. Item 10 of UFSAR Section 8.3.1.4.2 considers cables protected in the manner the same as cables in an enclosed raceway. Figure 8.3-52 allows a 1" minimum acceptable separation when the non-Class 1E cables are wrapped in this fashion within a cable spreading area.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because this design change is being made to preclude the possibility of an accident. It will reduce the chance of a fire hazard that could render both radiation monitoring trains inoperable.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because the design change will reduce the consequence of a fire in one train of the radiation monitoring system. A fire in one train will now be isolated from the redundant train, thus ensuring reliable redundancy.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the design change is passive in nature. It will not affect the operability of any equipment nor will it impact safety. In fact, the probability of malfunction due to a redundant train failure will be reduced.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because again the design change is passive. The consequence of a malfunction that results in ignition of the cables and flame spread is reduced.

The design basis accident which were reviewed for potential impact by the proposed design change included radioactive release from a system or component.

The safety systems which will be affected by the proposed design change include the Radiation Monitoring System.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because the design change is using UFSAR approved material to provide train separation.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the design change does not impact the operability of any equipment, and therefore will not lead to malfunction.

Failure modes of the proposed design change which were reviewed included unraveling of Sil-Temp and fire in the area of application.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the design change will increase the reliability of radiation monitoring for channels required by the Technical Specifications.

The proposed design change will not require change to the technical specifications. The Technical Specifications require various radiation monitors and electric power sources to be operable, yet they do not go into the detail of explaining individual cable characteristics and methods of separation.

The proposed change will not require changes to the Updated Final Safety Analysis Report. The UFSAR does not specify the method of separation used for individual cable assemblies, it only describes the acceptable generic methods that cables shall be separated, the minimum distances of those separations, and any cables using unique methods of separation. No change would be required unless methods of separation are spelled out on Table 8.3-10, and this design change does not fall into that category.

CHANGE TITLE

DCP-1046, Provide Oil Fill Capability to Reactor Coolant Pump Motors

CHANGE DESCRIPTION

The present design of the reactor coolant pump motors (2RCS*P21A,B,C) does not allow gravity oil fill of lower bearing oil reservoirs. The existing one-inch valve serves as both the fill valve and the drain valve, and is located below the normal oil level. It was originally intended that replacement oil be pumped into the oil reservoir through this valve. Gravity fill capability is desired.

The proposed solution is to install a one-inch standpipe assembly to provide a fill connection at a location above the normal oil level. The addition of the standpipe will require a modification of the oil collection pan to extend it under the added standpipe and valve.

SAFETY EVALUATION SUMMARY

There are no BVPS-2 UFSAR Chapter 15 design basis accidents that are affected by the proposed design change. All of the accident analyses review do not depend upon the operation of the reactor coolant pump motors, but use the pump casing and seals as a pressure boundary.

This modification will have no adverse effects on any Unit 2 safety systems.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because no changes are being made to the motor lube oil reservoir or circulation systems that affects pump operation. The existing fill/drain valve will remain 'normally closed' thus isolating the added piping from the lube oil. In addition, the added piping and the addition to the oil collection pan will be seismic, so their structural integrity is assured. This modification will simplify maintenance work on the motor by requiring less equipment to fill the bearing oil reservoirs.

The consequences of an accident previously evaluated in the safety analysis report will not be increased because no previously evaluated accidents are affected by this modification as described in Section 5.4.1 of the BV-2 UFSAR.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because this modification does not affect any safety functions performed by the reactor coolant pump motors as described in Section 5.4.1 of the BVPS-2 UFSAR. The integrity of the lube oil reservoirs will be maintained because the existing fill/drain valve will remain 'normally closed'.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased

because rupture or failure of this modification will have no effect on any safety-related equipment. The existing isolation valve will prevent loss of oil from the bearing reservoirs and preclude reactor coolant pump motor failure; therefore, this modification will have no effect on any safety-related equipment.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because this design change does not affect the operation of the reactor coolant pump motors; it will simplify maintenance by requiring fewer tools to add oil to the bearings. The oil collection pans will be extended under the added piping to prevent spillage of oil into the containment during oil fill operation and to collect any small oil leaks. Rupture or failure of the new piping is of no consequence to safe operation of the reactor coolant pump motor.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the safety functions of the reactor coolant pump motors are not being changed by this design change. This modification will create no new failure modes and will not add any new hazards.

There are no changes that affect the course of any accident analysis supporting Technical Specification bases that exceed the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because no Technical Specification bases are affected by this modification. The proposed design change will not require change to the technical specifications.

This change is not subject to the review requirements of the Environmental Protection Plan because this change does not affect the environment.

The proposed change will require a change to the Updated Final Safety Analysis Report, Figure 5.4-9.

CHANGE TITLE

DCP-1049, Auxiliary Feed Pump Steam Drain Valves

CHANGE DESCRIPTION

During normal surveillance start-up of the Turbine Driven Auxiliary Feedwater Pump, an operator must open the drain valves (2SDS*212 and 213) on the trip throttle valve (2FWE*TTV22) in order to drain water from it. After the turbine has been started, an operator must throttle or close these drain valves. This presents a serious safety hazard and is inconvenience to the operator, who must stand on the pump skid and lie over the pump shaft guard in order to reach the drain valves. The purpose of this modification is to relocate the drain valves to a more accessible location on the upstream vertical section of the drain lines. The drain line piping will also be slightly modified so that the vertical section is in front of the trip throttle valve and an additional pipe support will be installed to maintain the seismic design of the lines.

SAFETY EVALUATION SUMMARY

The probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the Updated Final Safety Analysis Report (UFSAR) is not increased. This design change is relocating the drain valves for the trip throttle valve to a new location on the upstream vertical section of the drain lines and rerouting the piping so that the vertical section of pipe is in front of the trip throttle valve. The design function of the drain valves will not be altered by this modification and their safety class boundaries will still be maintained. The seismic design of the piping will be maintained with the addition of a new pipe support. Therefore, the consequence of an accident or malfunction of equipment important to safety as previously evaluated in UFSAR Sections 10.3, 10.4.9, 15.1.5, 15.2.7, 15.2.8, and 15.6.5 will not be increased.

The possibility for an accident or malfunction of a different type than previously evaluated in the Updated Final Safety Analysis Report is not created. This modification will not alter the function of the drain valves for the turbine driven auxiliary feedwater pump trip throttle valve, nor will it degrade the reliability of the auxiliary feedwater pump to provide high pressure feedwater to the secondary side of the steam generators, when required. Additionally, since the seismic design and the piping safety class breaks will be maintained, the possibility of an accident or malfunction of a different type than any previously evaluated in UFSAR Sections 10.3, 10.4.9, 15.1, 15.2 and 15.6.5 will not be created.

The margin of safety as defined in the basis for any Technical Specification is not reduced. The operability of the Auxiliary Feedwater System will not be affected by this design change since the design function of the drain valves for the trip throttle valves will remain unchanged after relocating them to a more accessible location. Therefore, the margin of safety as defined in Technical Specification Basis 3/4.7.1.2 will not be reduced. This design change will not require a change to the Technical Specifications.

This design change will not require a change to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1063, Relocate Fire Hose Rack No. HR-243 and Provide Supports

CHANGE DESCRIPTION

Fire hose rack number HR-243 has become virtually inaccessible due to tubing and supports located in front of it. Since NFPA requires hose stations to be located where they are not likely to be obstructed, this modification proposes to relocate the rack to the front of the tubing and supports. This relocation will constitute the need for a new piping configuration along with additional piping supports.

SAFETY EVALUATION SUMMARY

The probability or the consequences of any accident previously evaluated in the FSAR will not be increased. This modification serves to enhance the reliability of the fire protection system by providing easier access to an existing hose rack. This change will not affect the system's intended function and the new piping and supports will be designed to the appropriate specifications.

The probability or consequences of a malfunction of equipment important to safety will not be increased. As stated before, this modification will actually enhance the Fire Protection System's reliability. No safety-related equipment will be affected by this modification since the hose racks are not the primary fire suppression device for any safety-related equipment.

The possibility for an accident or malfunction of a different type than previously evaluated in the FSAR will not be created. No new failure modes or potential hazards will be created by the implementation of this modification. During the modification's installation phase, when portions of the hose rack system are inoperable, appropriate means of backup fire protection must be made available (Ref. FSAR Section 9.5.1.2.3.2.9). This will be ensured by the adherence to Site Administrative Procedure 9D, "Fire Protection".

The margin of safety as defined in the basis for any Technical Specification is not reduced because no Technical Specifications or their bases are affected by this design change. This change does not require a change to the Technical Specifications.

This change does not require a change to the Updated Final Analysis Report.

CHANGE TITLE

DCP-1078, Disabling the Auto Dispatching System (ADS Function)

CHANGE DESCRIPTION

The System Operator is not required to control the BVPS Unit #2 Generator Load utilizing the Automatic Dispatching System (ADS). The ADS is a subsystem of the Turbine Generator Control System. The design of this system includes an annunciator for when the telemetering signal between the station and the system operator is lost. Since auto regulation of output power is not desired for Unit #2, the annunciator signal will be eliminated so that the "trouble alarm will not be constantly alarmed". The ADS will also be rendered inoperable.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because the Automatic Dispatching System is not used, is not safety-related, and in no way would its inoperability affect plant operation. The trouble alarm that is to be disconnected also has no effect on any accident scenarios.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because the inoperability of the ADS and its associated trouble alarm input do not impact safety-related equipment and therefore affect no accident consequences.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the proposed changes will not affect any safety-related equipment.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the proposed changes will not affect the consequences of any malfunction of safety-related equipment.

No design basis accidents are impacted by the proposed design change.

No safety systems are affected by the proposed design change.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because these changes do not impact the operability of any equipment required for plant safety.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the proposed changes to the ADS will not impact any safety-related equipment.

Beaver Valley Power Station Unit 2
1990 Report of Facility Changes, Tests, and Experiments
Page 85 of 152

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the equipment affected by the changes do not impact any Technical Specifications. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report. The UFSAR does not address the ADS, nor do any of the accident scenarios.

CHANGE TITLE

DCP-1130, Rev. 0, Temporary Reactor Vessel Head Shielding for Unit No. 2

CHANGE DESCRIPTION

Experience at BVPS-1 has proven that a major portion of refueling outage exposure occurs during the reactor vessel head removal and replacement, primarily during stud detensioning and tensioning operations. A temporary reactor head shielding system was installed at BVPS-1 during 5R (DCP-701) and has resulted in the reduction of exposure rates by a factor of four (4).

This modification proposes to provide BVPS-2 with the necessary permanent equipment to enable the support tubes and shielding (purchased under DCP-701) to be used during BVPS-2 refueling outages. Three (3) support brackets will be installed, (one [1] on each of the reactor vessel head lifting rig rods). These brackets will remain permanently affixed. Prior to detensioning the reactor vessel head studs, the support tubes and shielding will be lowered into the cavity using the Polar Crane. The stud tensioner hoists will then be used to insert the tubes into the support brackets and to install the shielding onto the support tubes. The shielding will remain in place until after the reactor vessel head is placed back on the vessel and the studs are tensioned. The support tubes and shielding will then be removed and placed in their storage boxes until the next refueling (most probably at BVPS-1).

SAFETY EVALUATION SUMMARY

BVPS-2 UFSAR, Chapter 15, and BVPS-1 UFSAR, Chapter 14, were reviewed to identify what design basis accidents could be impacted by the proposed modification. BVPS-2 UFSAR, Section 15.7.4, discusses the consequences of a fuel handling accident. Since this modification is not directly involved in the actual handling of fuel, it will not have any adverse affect on this type of accident nor will this modification affect any systems required to mitigate this type of accident. The impact of this modification on BVPS-1 is limited to radiological concerns during the transport of the shared equipment between the two (2) units. Any required decontamination and equipment transportation will be performed under approved radiological procedures. None of the BVPS-1 UFSAR Chapter 14 safety analyses will be affected by this modification.

No safety systems will be adversely affected by the proposed design change. The shielding will be placed on the reactor vessel head prior to stud detensioning and will remain there until the head is placed back on the vessel and the studs are tensioned. This will in no way affect the integrity of the reactor vessel head.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the Safety Analysis Report. The functions of all safety related equipment and systems will be unaffected by this modification.

The proposed design change will not increase the consequences of an accident previously evaluated in the Safety Analysis Report. No equipment or systems required to mitigate the consequences of any previously analyzed accident will be affected by this modification.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report. The loads that will be lifted by the Polar Crane and the Stud Tensioner Hoist are within their rated capacities. Analyses specific to BVPS-2 must be performed to verify that the weight that will be added due to this modification can be safely handled by the Polar Crane, Stud Tensioner Hoist, Reactor Vessel Head Lifting Rig, and Reactor Vessel Head Storage Stand. BVPS-1 analyses were reviewed. Assuming that the BVPS-2 analyses have similar results, the extra load added will be safe. The total weight of the shielding assembly including the lead blankets, support tubes, brackets, chains and lifting gear is approximately 9000 pounds or 4.5 tons. This weight will be temporarily added to the reactor vessel head and must be lifted by the Polar Crane. From Unit 2 UFSAR, Table 9.1-4, the reactor vessel head and attachments presently weigh 130 tons. The addition of the shielding and support components will increase this weight to approximately 134.5 tons. This is within the capacity of the Polar Crane, which is rated at 334 tons for the bridge, with each of the two (2) main hoists rated at 167 tons. Table 9.1-4 should be revised to include a new Heavy Load Identification of "Reactor Vessel head, attachments, and temporary shielding (used during refueling)", with a Load Weight (tons) of "134.5". (or as determined by Unit 2 Specific Analysis.)

The heaviest individual components that will be lifted with the Stud Tensioner Hoist will be the long shield blankets. These blankets weigh approximately 850 pounds each, which is within the 4000 pound capacity of the hoist.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report. No safety related equipment, other than previously discussed, will be affected by this modification. No new failure modes or potential hazards will be created.

No new credible failure modes will be created by the implementation of this modification. The permanently affixed brackets will meet applicable seismic requirements. The weights that will be lifted by the Polar Crane and Stud Tensioner Hoist are all within their rated capacities. And, there will be no functional changes to any safety related equipment, systems or structures.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the Safety Analysis Report. All equipment and system functions will remain unchanged. The reactor vessel head lifts will be performed in the same manner as before and will follow the applicable Heavy Load Handling procedures.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the Safety Analysis Report. No new failure modes or potential hazards will be created by the implementation of this modification.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.).

No T.S. basis will be affected, in any way, by this modification. The proposed design change will not require any changes to the technical specifications.

This design change is not subject to the review requirements of the Environmental Protection Plan since this change will not affect the environment in any way.

The proposed change will require a change to the Updated Final Safety Analysis Report. All heavy loads currently identified in Table 9.1-4 remain unchanged; however, a new heavy load, similar to the following should be added: "Reactor Vessel head, attachments, and temporary shielding (used during refueling)" - weight of "134.5" tons. (or the appropriate weight as determined by a Unit 2 analysis). Also, Figures 9.1-13 must be reviewed and revised as necessary to include the temporary reactor vessel head storage boxes as a heavy load lifted by the Polar Crane.

CHANGE TITLE

DCP-1135, Rev. 0, BV-2 Small Bore Snubber Optimization

CHANGE DESCRIPTION

The purpose of this design change is to eliminate snubbers on small bore piping due to their poor reliability, and failures which lead to increased testing, radiation exposure and analyses to qualify failures. Due to analytical and economic considerations, as well as operational considerations, this design change will target the optimization of the subject piping listed in the Design Input Index Section 1.0. By making use of the ASME Code Case N-411 damping values, it is expected that a minimum of 60 percent of the 400 or so snubbers associated with the target piping can be eliminated. This will result in approximately 250 snubbers being removed. The modifications will be specifically defined once the analyses are complete, then Engineering will issue those blocks of snubbers or modifications to a line which must be performed in its entirety in order to ensure code compliance. By performing these modifications, financial benefits of decreased down time, reduced manREM exposure, and reduced maintenance efforts will be provided.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because seismic analyses will be performed on the piping using ASME Code Case N-411 damping values to ensure that the seismic design of the piping is maintained. In addition, the existing lines analyzed by WHIPJET, as discussed in UFSAR Section 3.6B.2.1, will be reviewed to ensure that the Leak-Before-Break conclusions are still valid. This will demonstrate that the fluid leakage from a postulated defect at the highest stress location concurrent with minimum material properties can still be detected well before the rupture of the pipe by using the BV-2 Leak Detection System.

The consequence of an accident previously evaluated in the safety analysis report will not be increased since the minimum requirements of essential safety-related systems and structures are not compromised, the plant can be safely shut down, and offsite doses in excess of applicable guidelines will not occur. This design change will ensure that adequate clearance still exists between piping, components, and adjacent structures due to increased pipe movement which could occur. Protection against the dynamic effects of postulated pipe ruptures, where applicable, will be maintained, and the criteria of UFSAR Sections 3.6N.2.3.2 and 3.6N.2.3.2.2 will be met. This design change does not affect the design of the ESF systems.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because any increases in valve accelerations will be evaluated to ensure operability and compliance with existing equipment qualification standards. Nozzle load evaluations will also be performed to justify the increased nozzle loads, where applicable.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. Pin-to-pin replacement struts will be installed, where needed, in place of the eliminated snubbers, and some of the spring hangers may either require upgrading or be replaced with struts in order to meet the design objectives. The PSA 1/4 and PSA 1/2 snubbers which cannot be eliminated per the snubber reduction techniques will be replaced due to their poor reliability and high failure rates. In addition, those snubbers which remain on an optimized system may be required to be replaced with larger snubbers in order to ensure compliance with the analyses; however, this is not expected.

The design basis accident which were reviewed for potential impact by the proposed design change included small break LOCAs, main steam line breaks, and feedwater line breaks.

The safety systems which will be affected by the proposed design change include PCS, SIS, FWS, SWS, CHS, CCP, EDG, FNC, QSS, RHS, DGS, BDG, BRS, MSS and SVS.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created. By using the increased damping values allowed by ASME Code Case N-411, snubber elimination will be possible by showing that the pipe stress values or cumulative usage factors are still within the allowable limits specified in UFSAR Section 6.3, such that no new intermediate break locations are postulated.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created. If the analyses performed for this design change show that the support loads are increased, a reevaluation of the pipe supports and welded attachments will be performed to ensure that they remain within their design allowables. Additionally, a thermal reanalysis will be performed whenever struts are installed, to ensure compliance with the code.

Failure modes of the proposed design change which were reviewed included pipe breaks, pipe whip, jet impingement, and earthquakes.

The margin of safety as defined in the bases of Technical Specification 3/4.4.10 and 3/4.7.12 will not be reduced because the analyses performed and reviewed will demonstrate that safety-related components and systems have not been adversely affected by the removal of snubbers, and that the structural integrity of the Reactor Coolant System and branch connections is maintained during and following seismic or similar events initiating dynamic loads. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. UFSAR Table 3.9B-13 will have to be updated to reflect any snubbers which are eliminated.

CHANGE TITLE

JCP-1160, Rev. 0, Provide Heat Tracing for the Pump/Heater Assembly of WTD-TK23 and the Sensing Line for 2WTD-LT107

CHANGE DESCRIPTION

During cold weather, Demineralized Water Storage Tank [2WTD-TK23] heaters [2WTD-H23A,B] will freeze when not in operation since the lines in and out are not insulated; also, the sensing line for level transmitter [2WTD-LT107] is susceptible to freezing even though the line is heat traced and insulated. This design change will provide for heat tracing and insulation on the tank heater lines and will provide for improved heat tracing and insulation on the sensing line for [2WTD-LT107].

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because this design change is correcting a deficient situation by adding insulation and increasing the Kilowatt per foot rating of the heat tracing to prevent freezing in the Demineralized Water System Storage Tank heaters and level instrumentation.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because failure of the new heat tracing equipment will be of no greater consequence than failure of the existing heat tracing. As stated in Section 9.2.3.3 of the BVPS-2 UFSAR, no failure or malfunction of the demineralized water makeup system will adversely affect equipment or systems needed for safe shutdown of the reactor.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this design change.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this design change.

The design basis accident which were reviewed for potential impact by the proposed design change included freezing of demineralized water system lines due to failure of heat tracing.

No safety systems will be affected by the proposed design change.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because this design change is replacing existing heat tracing and insulation with higher rated equipment of the same type, and therefore no new accidents or malfunctions can be postulated.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because no safety-related equipment is affected by this modification.

Failure modes of the proposed design change which were reviewed included freezing of demineralized water system lines due to heat tracing failure.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because no Technical Specification bases are affected by this design change. The proposed design change will not require change to the technical specifications.

The proposed change will require a change to the Updated Final Safety Analysis Report, Figure 9.2-22.

CHANGE TITLE

DCP-1195, Rev. 0, Instrument Air Dryer Coalescent Pre-Filters

CHANGE DESCRIPTION

Problems have been identified with the plant instrument air system maintaining an acceptable dew point. Similar problems were encountered at Unit 1 and resolved. The resolution called for improved maintenance and the installation of coalescing filters as a prefilter system prior to the air dryers. Unit 2 is going to follow this action by replacing the existing air dryer particulate prefilter [2IAS-FLT21] with a coalescing filter system.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because the new coalescing filter assembly will provide additional moisture removal capacity that will result in drier air in the Instrument Air System.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because as stated in Table 9.3-2 of the UFSAR, if the coalescing prefilter clogs, cartridge-type bypass filters are available to be placed in service until the clogging is corrected. No changes are being made to the bypass filters under this modification. If the filter pressure boundary container fails, this is bounded by failure of the instrument air dryer, which would result in the bypass air filters being placed in service.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this modification.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this modification.

The design basis accidents which were reviewed for potential impact by the proposed design change included clogging of the new coalescing prefilter and air dryer rupture.

No safety systems which will be affected by the proposed design change.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because no credible failure modes other than those previously analyzed can be postulated.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because no safety systems will be affected by this modification.

Failure modes of the proposed design change which were reviewed included clogging of prefilter and air dryer rupture.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because no Technical Specifications bases are affected by this modification. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. Table 9.3-1 should be revised to reflect the new pre-filter parameters. Figure 9.3-3 should be revised to reflect the new system configuration.

CHANGE TITLE

DCP-1237, Rev. 2, DRMS Modifications to Prevent Bad Data Quality Indication on
ERFCS/SPDS Displays

CHANGE DESCRIPTION

Depending on the application, certain rad monitors remain in a standby condition until process flow exists. During this condition, a loss of sample flow is set in the DRMS Monitors. This logic results in a "Poor" data quality indication on the SPDS. This poor data quality is a misleading indication on the SPDS displays because the DRMS monitor is operating as designed. This design change will modify the logic of the RM-80 (microprocessor based signal processor and controller) for each of the DRMS monitors involved. The logic will be changed such that a normal condition will be generated at the DRMS monitors if there is no process flow input as sensed by the RM-80s.

Communications with the vendor during the design of the firmware revealed that a process flow element failure would develop into an unmonitored release. If the process flow element was to fail, the sample pumps would shut off after 50 seconds and the DRMS would not alarm. Radiation Monitor [2SGC-RQI100] automatically closes [2SGC-MCV100] on a high radiation signal of the Liquid Waste Process Effluent Release path. Radiation Monitors [2SWS*RQI100A(B)(C)(D)] require operator actions on a high radiation signal to mitigate the amount of leakage from the RSS Heat Exchangers. Radiation monitors [2HVS*RQI109C(D)] are Elevated Release Detectors for gaseous effluents and are required operable by Technical Specifications. [2CNA-RQI100] and [2CNA-RQI101] are Cat. II monitors with no automatic actions.

SAFETY EVALUATION SUMMARY

The design basis accident which were reviewed for potential impact by the proposed design change included Section 15.7, Radioactive Release From A System Or Component.

The safety systems which will be affected by the proposed design change include Service Water and SLCRS.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because this logic change does not inhibit nor affect rad monitor safety functions that are taken credit for in the accident analysis.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because the rad monitors will still perform as designed and as analyzed in the UFSAR.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the design change is not changing the operation of the equipment, it is only changing the state of the sample alarm during the absence of process flow. Administrative controls will ensure a loss of process flow signal is alarmed for [2SGC-RQI100].

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because a malfunction of equipment important to safety will yield consequences to those already analyzed.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because the safety functions of the affected monitors is unchanged.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the design change does not affect the possibility for a malfunction of safety-related equipment.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because sample flow verification is only required when process flow is available. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. Page 11.5-16, 5th paragraph should be changed to describe that administrative controls are used to ensure the low process flow alarm on [2SGC-RQI100] performs automatically.

CHANGE TITLE

DCP-1265, Rev. 0, Relocation of Level Switches 2FWS-LS104A/B

CHANGE DESCRIPTION

The setpoints of the Level Switches (2FWS-LS104A and B) on the second point heaters are too restrictive. The switches are presently mounted on standpipes AO and AP at Elevation 776'-11-1/2", which is 1" above the heater's normal level. While operating at 100% power, small turbine load swings cause small level changes in the second point heaters, which causes undesired closure of 2ESS-MOV102, thus turbine "runback" and annunciation of Window A6-8D.

To prevent turbine "runback" and to keep with the dark board philosophy, the switches will be elevated to 777'-2-1/2", which increases the setpoints by 3".

This modification is limited to the second Point Heaters Standpipes AO and AP, Level Switches [2FWS-LS104A and B] and associated cables [2ESSNNO24, 2ESSNNO25, 2FWSANCS10 and 2FWSBNC810]. By elevating the switches, the cables will be short; therefore two (2) terminal boxes must be added along with four (4) new cables.

This DCP is not considered to cause any increased turbine water induction concerns because: (1) the second point heater drains by gravity via a 16" line (with no valves) to the heater drain tank in the turbine basement; (2) the extraction steam connection is from the crossunder piping upstream of the moisture separators and reheaters; and (3) the existing setpoint calculation, SP-2FWS-5, Rev. 0, makes no mention of turbine water induction concerns or requirements.

This DCP will maintain the reliability, integrity and operability of the Feed Water System (FWS) and will have no adverse effects on any other equipment.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP because this DCP does not adversely affect any safety or non-safety systems, does not exacerbate any existing accidents, and does not introduce any new hazard beyond that already considered in the UFSAR.

This DCP will not adversely affect the safety function of any system. This DCP will only affect the non-safety related parts of the FWS. The reliability, integrity, and operability of the FWS will be maintained and no other systems will be affected.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability, integrity, and operability of the FWS, and it will have no effect on any other equipment; therefore, no probabilities of occurrence of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP is minor and the change will have no effect on any other equipment. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability, integrity, and operability of the FWS is being maintained.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP is minor and the changes will not adversely affect any equipment, including the FWS.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety system used to mitigate an accident. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the fundamental design features and functions of the equipment have not been significantly altered. This is a relatively minor change.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the reliability, integrity, and operability of the FWS will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. This DCP is minor and the reliability, integrity, and operability of the FWS will be maintained. The fundamental design features and functions will not be changed in a way that creates the possibility of a malfunction of a different type. The safety-related parts of the FWS will not be affected.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications because the reliability, integrity, and operability of the FWS will be maintained, and no other equipment will be affected. This DCP will not require any changes to the technical specifications.

This DCP will not require any changes to the UFSAR.

CHANGE TITLE

DCP-1275, Rev. 1, S/G Primary Manways Bolt to Stud Conversion

CHANGE DESCRIPTION

The purpose of this design change is to replace the steam generator primary manway bolting with studs and nuts which will be used with a stud tensicner device to provide the correct preload. This modification is being made in accordance with Westinghouse Technical Bulletin NSID-TB-87-01, Rev. 1 to provide a high degree of preload accuracy and to reduce fastener damage. New manway insulation will also be installed due to studs protruding farther from the manway than the bolts. The new insulation will be reflective type.

SAFETY EVALUATION SUMMARY

The design basis accidents which were reviewed for potential impact by the proposed design change included small and large break LOCAs. Neither accident will be impacted by this design change.

The safety system which will be affected by the proposed design change is the reactor coolant system. No adverse effects on the RCS safety functions will occur due to this design change.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. This modification will provide a higher degree of preload accuracy and help to reduce fastener damage, thereby not increasing the probability of an accident occurring.

The consequence of an accident previously evaluated in the safety analysis report will not be increased. This modification will provide an enclosure equal to the one currently provided and therefore will not increase the consequence of any accidents.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because this design change will help to reduce fastener damage.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the new studs and nuts will be designed to meet the pressure and temperature design conditions, and any operational requirements.

Failure modes of the proposed design change which were reviewed included reactor coolant leaking from the steam generator primary manway closure joint. LOCAs in various fashions are already analyzed.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because this modification will provide a closure joint equal to or better than the existing.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the new studs and nuts, when used in conjunction with the tensioner device, will help to provide a more accurate preload. This should provide a more even compression of the manway closure joint.

The margin of safety as defined in the basis for any Technical Specification will not be reduced since this design change will not affect the operability of the steam generators and does not impact the steam generator tube sample selection/inspection. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1286, Rev. 0, 2MSS*AOV101A,B,C C/NC Contact Modification

CHANGE DESCRIPTION

Westinghouse document, WCAP-10170, "Key Safety Parameter Selection for the Beaver Valley Unit 2 Safety Parameter Display System (SPDS)", identifies the Main Steam Isolation Valve (MSIV) positions as mapped parameters. The Plant Computer System (PCS) should have the appropriate inputs available to it so that the MSIV's positions, at any time, can be correctly identified (OPEN/INTER/CLOSED). Currently only OPEN/NOT OPEN positions are displayed. This modification proposes to add CLOSED/NOT CLOSED indications to the PCS and the ERFCs. The points that correctly indicate OPEN/NOT OPEN, (Y6104D), (Y6105D), and (Y6106D), will not be altered. However, points (Y5858D), (Y5859D), and (Y5860D) will be modified to provide CLOSED/NOT CLOSED indication. These points are currently incorrect in that they provide redundant OPEN/NOT OPEN indication.

SAFETY EVALUATION SUMMARY

The MSIV's help provide the necessary protection against an unwanted depressurization of the Main Steam System piping. The MSIVs are used to help mitigate such accidents as steam piping failures, feedwater piping failures, and steam generator tube failures (UFSAR Sections 15.1, 15.2.8 and 15.6-3). However, none of these accidents will be affected by this modification since the function of the MSIVs will remain unchanged.

No safety-related systems will be adversely affected by this modification. All physical work will be performed on QA Category I wiring in junction boxes [2JB*3740, 1, and 2], (Rod Control Bldg., El. 773'). However, impact of this modification, on any system, is limited to the correction of the MSIV CLOSED/NOT CLOSED indications on the PCS and ERFCs, which are QA Category III and II, respectively, and are isolated from the QA Category I portions of the system as discussed in the QA Category Conclusion.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. No safety-related components or functions will be affected by this modification.

The consequence of an accident previously evaluated in the safety analysis report will not be increased. No systems required for mitigation of any of the previously analyzed accidents will be affected by this modification.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. The functions of all safety-related equipment, including the MSIVs, will remain unaffected by this modification. No new failure modes or potential hazards will be created by the implementation of this modification.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. This modification will enhance the ability of plant personnel to retrieve information regarding MSIV positions. All MSIV control functions, indicating lights, applicable OPEN/NOT OPEN computer points, and annunciator windows will remain unchanged.

Failure modes of the proposed design change which were reviewed included failure of the CLOSED/NOT CLOSED computer points to indicate properly. This would not degrade the system to any great extent since these points do not currently exist at all. All other indications associated with the MSIVs will remain unaffected by this modification; therefore, their functioning capability will remain unchanged.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created. This modification serves only to provide more complete MSIV indication to the PCS and ERFCS. No equipment functions will be changed and no new failure modes will be introduced.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created. No safety-related equipment will be adversely affected by this modification.

The margin of safety as defined in the basis for any Technical Specification (T.S.) will not be reduced. No T.S. bases, including that of T.S. 3.7.1.5, "Main Steam Line Isolation Valves", will be affected by this modification. The proposed design change will not require any changes to the technical specifications.

The proposed change will not require any changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1313, Rev. 0, Sprinklers for Turbine Building Pedestals and Amertap Condenser Pit

CHANGE DESCRIPTION

Additional automatic sprinklers fire protection capability has been requested for the areas directly below the concrete pedestals along the north and south side of the turbine condensers and below the numerous obstructions directly above the Amertap Condensate Pit area.

The proposed solution is to tap off existing pipes in the Turbine Building Mezzanine Elevation 752', and provide a closed head sprinkler system for these areas.

The basis for the proposed solution was an ANI 1974 recommendation. ANI requested an automatic sprinkler system be installed in all areas to which oil may spread in the event of a break in an oil line above the concrete pedestals along either side of the turbine condensers. Also, there is a large number of obstructions between the present sprinklers and the pit (i.e. piping and cable trays) that would not allow adequate sprinkler spray pattern coverage.

The mechanical boundaries of this change include the north and south side of the concrete pedestals along either side of the turbine condensers and another set of sprinklers running east and west directly over the Amertap Condenser Pit Area.

Proposed system additions to the current mechanical boundary consist of:

- A sprinkler header network extending from an existing 3" pipe (ASCOA Dwg. 16-1781 Sh. 9C) for the north side of the turbine pedestals, southwest of Columns Z and 7. (Elevation 771'4")
- A second sprinkler header network extending from an existing 4" pipe (ASCOA Dwg. 16-1781 Sh. 10E) for the south side of the turbine pedestals east of Columns 7 and X. (Elevation 769'-7 3/4")
- The third sprinkler header network extends from an existing 2 1/2" pipe (ASCOA Dwg. 16-1781 Sh. 4A) for the center of the Amertap Condenser Pit Area south of Columns C and 9. (Elevation 741'-3")
- A minimum of 12, 165°F, sprinkler heads. (Two under each pedestal arch for a total of four on the north side and four on the south side and four heads directly over the Amertap Condenser Pit Area.)

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because this modification does not change the probability that a fire will start in the area. Since no safety-related equipment is located in or near the turbine building basement, electrical conduit flooding of safety-related components due to a discharge of water from this modification is not increased. Also, no equipment that could cause a release of radioactivity to the environment is affected.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because this modification will provide additional fire suppression capability. Any failure of this modification can have consequences no worse than the present configuration, which is analyzed in Section 9.5.1 of the BVPS-2 UFSAR.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this modification.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because no safety-related equipment is affected by this modification.

No design basis accidents from BVPS-2 UFSAR Chapter 15 are affected. This modification conforms to the basis that no single fire will cause unacceptable risk to public health and safety, will not adversely affect the ability to safely shut down the reactor, and will not significantly increase the risk of radioactive release to the environment.

No safety systems will be affected by the proposed design change.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because the limiting accidents have been previously analyzed in Section 9.5.1 of the UFSAR. This modification will serve to reduce the consequences of a turbine building fire.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because no safety-related equipment is affected by this modification.

Failure modes of the proposed design change which were reviewed included piping rupture or leak.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because no Technical Specification bases are affected by this modification.

No changes in parameters that affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment boundary are affected by this modification. The proposed design change will not require change to the technical specifications.

The proposed change will require a change to the Updated Final Safety Analysis Report, Figure 9.5-2.

CHANGE TITLE

DCP-1314, Rev. 0, Ground Test Circuit for Bus 2-5 and Bus 2-6

CHANGE DESCRIPTION

At the present time a ground on either DC Bus 2-5 or 2-6 is annunciated in the control room as a ground on both DC Buses. The two DC bus ground detection circuits are interconnected through the isolation power diodes in logic cabinet 2IHA-LOG-CAB. There presently is no easy way to determine which bus has the ground fault. The proposed solution is to install three ground test circuit breakers within the annunciator logic cabinet to isolate the common "Ground Trouble" annunciator when a ground appears on either DC Bus 2-5 or 2-6. These breakers will be used for troubleshooting to determine upon which bus the ground fault is located and to isolate the faulted bus from the nonfaulted bus while repairs are being made.

SAFETY EVALUATION SUMMARY

No. Chapter 14 or 15 design basis accidents are impacted by this design change.

No safety systems are affected by this design change.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report because the system configuration is not changed by this design change. The breakers will be added to assist operators in searching for ground faults.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report because the analysis in Section 8.3.2.1.2 of the UFSAR is not affected by this modification. The Vital Fuses described in this section are not affected by this design change.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because this circuit performs an indication function only to detect ground faults, thus it performs no control or protective functions. No changes are being made to the ground fault circuit that affects how it operates. The addition of these breakers will provide the additional capability to troubleshoot to determine the location (Bus 2-5 or 2-6) of the ground fault. No equipment important to safety is affected by this design change.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because no radiological systems are affected and thus the consequences of malfunctions of equipment important to safety are not increased.

The only credible failure mode is that one or both of the breakers could trip open. If this happens, it will have no effect on the operation of the essential bus system; only ground detection capability will be impaired.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report because this design change performs no protective, indicating, or control functions that affect the operation of any system. These breakers will be used to track ground faults in the Essential DC System.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. The system configuration of the circuits are not changed. The added breakers are to be used for troubleshooting and perform no protective functions. No new malfunctions are created.

There are no changes in parameters that affect the course of any accident analysis supporting Technical Specification bases.

No Technical Specification bases are affected by this design change. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1321, Rev. 0, Annunciator Window A8-6B, "Heat Tracing System Trouble"

CHANGE DESCRIPTION

This design change is being made to comply with the NRC's "dark board" concept. Currently, annunciator A8-6B receives inputs from QA Category II heat trace panels 2HTS-PNLN1CP and 2HTS-PNLN2CP on any undertemperature, overtemperature, or loss of power (LOP) alarm. The temperature alarms occur frequently due to normal system operation and flow paths of the Steam Generator Blowdown, Solid Waste Disposal, and Condensate Systems. This modification proposes to remove the undertemperature and overtemperature alarm inputs to the plant computer and annunciator A8-6B. The LOP inputs will remain. All of the inputs (undertemperature, overtemperature, and LOP) to panels 2HTS-PNLN1CP and 2HTS-PNLN2CP will also remain.

CHANGE DESCRIPTION

There are no previously analyzed accidents that will be affected by this modification. These temperature alarms are not associated with any safety-related systems nor are they needed to assure operability of any system required for accident mitigation.

No safety systems will be affected by the proposed design change.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report since none of the accidents will be affected in any way by this modification.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report since no safety-related systems or systems required to help mitigate any of these accidents will be affected by this modification.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. There is no safety-related equipment that will be affected by this modification either directly or indirectly.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related equipment will be affected by this modification. The components involved in this change are all non-safety related. The alarm inputs to local heat trace panels 2HTS-PNLN1CP and 2HTSPNLN2CP will be unaffected by this modification. Operations personnel will continue to monitor these panels.

No new credible failure modes will be introduced by the implementation of this modification. The temperature alarms will continue to provide input to the local panels in the same manner as before. Therefore, the probability of failure will not be increased and no new failure modes or potential hazards will be introduced.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. All system functions will remain unchanged.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. All component functions will remain unchanged.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.). No T.S. or its bases will be affected by this modification including T.S.s in Section 3/4.3, "Instrumentation." The proposed design change will not require any changes to the technical specifications.

The proposed change will not require any changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1328, Rev. 0, Inadvertent Actuation of SSPS Outputs

CHANGE DESCRIPTION

At present, some of the output relays of the Solid State Protection System (SSPS) can be activated by two signals, one being the logic of the SSPS and the other by means of a test panel. The test panel permits periodic testing of the Engineered Safeguards Features (ESF) actuation scheme of the QS pumps in compliance with Technical Specification (T.S.) surveillance requirement 4.6.2.1.

SSPS output relays K643 and K644 actuate to provide start signals to the Quench Spray (QS) Pumps [2QSS-P21A(B)] and auto open signals to the pumps, suction and discharge valves, [2QSS-MOV100A(B)] and [2QSS-MOV101A(B)]. On a QS demand signal the SSPS logic causes the suction and discharge valves to open and the pumps to auto start. Two redundant master relays in each circuit (K505 & K519), located on the neutral side of the associated output relay, energize to close. This action completes the circuits to open the valves and to start the pumps.

To enable testing of the K643 and K644 output relays without spraying down containment,, the relays' test circuits are interlocked with each other and with field contacts (valve limit switch contacts and 4KV breaker auxiliary switch contacts) so that both relays cannot be actuated at the same time during testing. In the test mode of operation, the neutral sides of the relay circuits are completed through test switches S842 and S843 via those interlocks. Since the output relays are controlled by their neutrals, the relays can, and have been, accidentally energized by simply grounding any part of their test circuits between the relays & the test switches.

This modification proposes to prevent accidental activation of the output relays by moving the test switches to a location between the output relays and the associated field permissives. This will effectively isolate the field test interlock circuits from the output relays; therefore it will prevent accidental activation of the relays should the field circuits be grounded.

Both trains will be modified as described above. The changes will be restricted to the internal wiring of the Train A and B safeguards test cabinets. the functions of the QS System and the ESF System will remain unchanged.

SAFETY EVALUATION SUMMARY

The Quench Spray System is used for containment depressurization following such accidents as a steam line or feed line break inside containment or a loss of coolant accident (LOCA). These accidents are discussed in UFSAR Sections 15.1, 15.2 and 15.6.

The safety systems that will be impacted by the proposed design change include the Quench Spray System and the Engineered Safeguards Features System. However, this change will not affect the design function of any system components or of either system as a whole.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report. This modification will not affect the design function of any safety-related components. It is a change only to the test circuitry, located in the Safeguards Test Cabinets, and for the QS pumps and their associated suction and discharge valves. The change will not affect any existing test or operating procedures; therefore no procedure changes will be required.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. No components or systems required to mitigate any of the previously analyzed accidents will be adversely affected.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related equipment, including that of the QS and ESF Systems, will be adversely affected.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. All safety-related equipment functions will remain unchanged.

No new credible failure modes will be introduced by this modification. The physical changes associated with this modification involve the rewiring of existing test switches. The rewiring will be restricted to the internal wiring of the Safeguards Test Cabinets and will comply with QA Category I, seismic requirements.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. The functions of all systems will remain unaffected by this modification.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. The functions of all components will be unaffected by this modification. Even the method of testing these components will be unchanged.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.). None of the T.S. bases will be affected by this modification including that of T.S. 3/4.3.2 and 3/4.6.2.1. The proposed design change will not require any changes to the technical specifications.

The proposed change will not require any changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1336, Rev. 0, Nuclear Instrumentation System Source Range High Voltage Cutoff

CHANGE DESCRIPTION

Problems have been experienced with the Source Range (SR) Drawer high voltage cutoff circuit, namely SR high voltage has been turned on and off unexpectedly. This DCP will modify the circuitry to eliminate the unexpected, spurious turn-on and turn-off of the SR high voltage. The function of the circuit will remain the same, but it will become more reliable.

The more reliable operation of the automatic high voltage cutoff circuit will eliminate the need to remove fuses during power operation which de-energizes the source range flux doubling circuit. Removing the fuses activates the source range flux doubling trip annunciator light which does not support the NUREG-0700 "Dark Board" Concept. This DCP, therefore, is the response to licensing commitment 6.A4-3D (License Condition No. 2.C.8, Detailed Control Room Design Review, Annunciator "Dark Board" item A,6.

A High Voltage manual control switch, S104, with three positions (On, Normal, and Off) will also be added to the drawer. The switch will be positioned to "Normal" except as described in the following:

With the addition of the High Voltage Manual Switch S104, the operator can manually turn on the Source Range high voltage when approaching the Source Range levels to determine if the SR channel (detector, electronics, etc.) is operable. If it is found to be inoperable, then the operator can take appropriate action.

During maintenance and surveillance testing of the Source Range channel, the technician can place the HV manual control S104 in the "Off" position to avoid installing jumpers in the rear of the NIS console in order to deenergize the SR high voltage.

With the high voltage manual switch S104 in the "On" position, the input error inhibit is in the inhibit position operator can keep the source ranges energized when shutdown and the SSPS input error inhibit is in the inhibit position.

The switch will only be placed in the "Off" position for maintenance and testing, and these activities are not expected when the protection system must be operable. Therefore, per item 3C of FSAR Section 7.5.5, automatic Bypass and Inoperable Status Indication (BISI) is not required for this switch. BISI may of course be performed administratively whenever necessary.

A light on the SR drawer will illuminate if the switch is not in the "Normal" position. This DCP will meet all requirements of the applicable code IEEE 279 per the lead engineer.

Annunciator A4-4E, "NIS Detector/Compensator Loss of Voltage" currently alarms for a loss of high voltage to either SR detector or Intermediate Range detector loss of voltage. The SR signal will be rewired at 2CES-SLTCAB to

alarm if the high voltage is on above P-6 or off below P-6. This is considered an accurate and acceptable way to indicate trouble for the SR high voltage. Annunciator Window A4-4E's nomenclature will be modified to indicate NIS Detector/Compensator Trouble.

Source range drawers and Annunciator Window A4-4E are located in the Unit 2 Control Room. Status Light Cabinet, 2CES-SLTCAB is located in the Control Building, Elevation 70, Southwest Corner. There is one spare source range drawer in Storeroom 22 which will also be modified.

This DCP will maintain the reliability, integrity and operability of the Source Range Nuclear Instrumentation System (SRNIS) and associated alarms and will have no adverse effects on any other equipment.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP because this DCP does not adversely affect any safety or non-safety systems, does not exacerbate any existing accidents, and does not introduce any new hazard beyond that already considered in the UFSAR.

This DCP will not adversely affect the safety function of any system. The reliability, integrity, and operability of the SRNIS will be maintained and no other systems will be affected.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability, integrity, and operability of the SRNIS, and it will have no effect on any other equipment; therefore, no probabilities of occurrence of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP is minor and the change will have no effect on any other equipment. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability, integrity, and operability of the SRNIS is being maintained. The SRNIS is not credited in any FSAR accident analysis as indicated by its absence from FSAR Table 15.0-4.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP is minor and the changes will not adversely affect any equipment, including the SRNIS.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety system used to mitigate an accident. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the fundamental design features and functions of the equipment have not been significantly altered. This is a relatively minor change.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the reliability, integrity, and operability of the SRNIS will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. This DCP is minor and the reliability, integrity, and operability of the SRNIS will be maintained. The fundamental design features and functions will not be changed in a way that creates the possibility of a malfunction of a different type.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications because the reliability, integrity, and operability of the SRNIS will be maintained, and no other equipment will be affected.

This DCP will not require any changes to the Technical Specifications. As long as the manual switch, S104, is only placed in the "Off" position for maintenance and testing, there is no change required to the Technical Specifications or bases. If the manual switch, S104, is in the "Off" position and a reactor trip occurs, the SR trip and high voltage will not be automatically restored below the P-6 setpoint as stated in the bases of T.S. 2.2.1 under "Reactor Trip System Interlocks". However, as long as the manual switch, S104, is only "Off" for maintenance and testing, the current bases remain correct and do not need to be changed. When the switch S104 is in the "Off" position the source range channel shall be considered inoperable per the applicable Tech. Specs.

This DCP will require changes to the UFSAR. UFSAR Sections 7.2.1.1.2, 7.2.1.1.3 and Figure 7.2-1 (Sh. 3 of 18) need to be updated to describe the added manual switch, S104.

CHANGE TITLE

DCP-1339, Rev. 0, C/NC Contract Indication

CHANGE DESCRIPTION

Closed/Not Closed (C/NC) contact indication is expected by the Plant Computer System (PCS) and the Safety Parameter Display System (SPDS) function of the Emergency Response Computer System (ERFCS) in accordance with WCAP 10170 for the valves listed below.

Currently a contact to provide the C/NC indication for these valves is taken off a Limitorque rotor which is set to provide an electrical bypass of the open torque switch at the beginning of the opening stroke. On a closing stroke, this switch changes state before the valve is completely closed. As a result, the computers show that the valves are closed slightly before the flow path is completely shut off. If a valve were to stop between the change of state point and the full shut off position, a flow path through the valve could exist even though a CLOSED indication had been achieved. Concerning human factors, it is undesirable to have a mismatch between the bench board indicating lights and the computer displays especially during an accident as the above valves' position is used to evaluate safety status.

Accurate C/NC position indication to the computers can be provided for each valve as follows:

<u>Valve</u>	<u>Solution</u>
2SIS*MOV863A&B	Rewire: Use spare relay to multiply contacts Run wire in MCC Run wire from MCC to Limitorque
2SIS*MOV8887A&B	Lift and land 2 wires: Use contact 14
2SIS*MOV8811A&B	Lift and land 2 wires: Use contact 14

SAFETY EVALUATION SUMMARY

A review of the accident scenarios in Chapter 15 of the Unit 2 UFSAR was performed. None of these accidents are affected by modifications being made per this design change.

The only safety systems affected are the Safety Parameter Display System (SPDS) (Sections 7.5.6 and 18.2 of the BVPS-2 UFSAR) and the Safety Injection system (Section 6.3 of the BVPS-2 UFSAR). The operation and descriptions of the Safety Injection System are not affected by this design change. The operation of the SPDS is not changed; however, this design change will correct deficiencies in inputs to the SPDS to provide more accurate information to the control room operators concerning the status of certain motor operated valves in the Safety Injection System.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report because the SPDS and the ERFCS perform no control or protective functions that could lead to an accident.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report because this design change will provide more accurate SIS flow path information to the operators during an accident than presently exists. This will increase the confidence level of the operator in the information provided to him via the SPDS or the ERFCS and will reduce the likelihood of an operator error that could increase the consequences of an accident.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because the SPDS and the ERFCS perform no control or protective functions over any plant equipment and thus the probability of occurrence of a malfunction of equipment important to safety is not increased for any Chapter 15 accident.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because this design change will correct existing deficiencies in the C/NC circuits to provide more accurate information to the plant operators.

No new credible failure modes can be postulated. No existing failure modes, such as wiring damage or contact switch malfunctions, can lead to an accident or malfunction of equipment important to safety, although the confidence level of the operator in the validity of this information may be affected.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report no new accidents are created by this design change because it will correct existing deficiencies in the C/NC indication for the SIS MOVs affected.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report because it will correct existing deficiencies in the C/NC indication for the SIS MOVs affected.

No changes are being made that affect the course of accident analyses that support Technical Specification bases.

No Technical Specifications are affected by this change. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

The proposed change will not involve an Unreviewed Environmental Question.

CHANGE TITLE

D 1355, Rev. 0, 2CHS*P21A and C Vents

CHANGE DESCRIPTION

Hydrogen gas sometimes collects in the piping of Charging Pumps (2CHS*P21A&C) when they are not running, and it is recognized that starting a charging pump with hydrogen voids is not desirable. Presently, the gas is removed through the use of a manual venting procedure that employs the use of tygon tubing. This has resulted in equipment and personnel contamination.

This modification proposes to maintain the ALARA concept by installing permanent piping for a manually operated vent system for pumps A and C. (The piping arrangement does not allow accumulation of hydrogen gas in pump B).

SAFETY EVALUATION SUMMARY

The charging pumps, used as High Head Safety Injection (HHSI) pumps, are required to operate following the occurrence of several analyzed accidents, including: Accidental Depressurization of the Main Steam System, Feedwater System Piping Break, Inadvertent Opening of a PORV, Steam Generator Tube Rupture, and Loss of Coolant Accident.

The safety systems that will be affected by the proposed design change are the Chemical and Volume Control and the Safety Injection Systems. However, no adverse effects will be created by this modification. This modification serves only to more easily vent the HHSI pumps in order that their reliability may be maintained.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report. No changes will be made that could affect any of the initiating events for any of the previously analyzed accidents. Therefore, the probability of occurrence of any of the accidents will not be increased.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. The function of all safety-related equipment, including the HHSI pumps and the Volume Control Tank (VCT) will remain unchanged.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No component functions will be adversely affected by this modification. This change will improve the method of venting the HHSI pumps by replacing tygon tubing with permanently installed vent piping. This will help enhance the ability to maintain the HHSI pumps and piping in an acceptable condition.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related system or component functions will be adversely affected by this modification.

No new failure modes or potential hazards will be introduced by the implementation of this modification. An existing, temporary arrangement will be replaced with permanent piping, valves, and sight flow indicators. The components will meet the required temperature and pressure ratings and will be installed as QA Category I, Safety Class 2, except for the sight flow indicators, which will be installed as QA Category II, Safety Class 4. All of the components will meet seismic requirements.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. The HHSI pumps will continue to be manually vented using permanently installed components rather than temporary rigging. No safety-related system functions will be adversely affected by this change.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. No safety-related component functions will be adversely affected by this change. Valves installed as part of this modification will be normally closed. Operating procedures will be revised to provide instructions on the proper method of venting the pumps using the new installation.

This modification will not produce changes in parameters which affect the course of any accident analyses supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change will not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.). No T.S. or its bases, including that of T.S. 3/4.1.2.3, 3/4.1.2.4, 3/4.5.2, and 3/4.5.3, will be affected by this modification. The proposed design change does not require any changes to the technical specifications.

The proposed change does require a change to the Updated Final Safety Analysis Report. Figures 9.3-21 and 9.3-25 must be revised to include the new vent paths.

CHANGE TITLE

DCP-1360, Rev. 0, Installation of New Liners Under 2HDDH-P21A&B

CHANGE DESCRIPTION

During plant operation, steam blows out from beneath the sole plate of the heater drain pumps, [2HDDH-P21A&B]. The steam is a safety hazard to personnel and is corrosive to the pump components and the concrete.

This modification proposes to eliminate the steam by eliminating sources of water entering the pump pits. A bottom plate will be fabricated for the pump pits. It will be installed over the existing concrete plug at the bottom of the pits and will be welded to the steel casing lining of the pits. Also, a curb will be constructed around the pumps' sole plates to prevent water from running into the pump pit.

SAFETY EVALUATION SUMMARY

No design basis accidents will be impacted by this modification. Because of the relationship of the Heater Drain System to the Feedwater System, UFSAR Sections 15.2.7 and 15.2.8 were reviewed but found to be unaffected by this modification. There are no design basis accidents associated with the Heater Drain System.

No safety systems will be affected by the proposed design change.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report. Since these pumps supply water to the suction of the Main Feedwater Pumps, the loss of these pumps could initiate a loss of normal feedwater flow. In this case, the Auxiliary Feedwater would then supply sufficient flow to the steam generators. However, this modification will not affect this design function of the Heater Drain Pumps, and therefore will not increase the probability of this type of failure.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. None of the systems required to mitigate a previously analyzed accident (including the Auxiliary Feedwater System) will be affected by this modification.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related components will be affected by this modification. The Heater Drain Pumps themselves are non-safety related, QA Category II.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No components required to operate due to the failure of another safety-related component will be affected by this modification.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. The functions of all systems (both safety and non-safety related) will remain unchanged.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. The functions of all equipment and the ability to perform those functions will remain unchanged.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.). None of the T.S.s or their bases will be affected by this modification. The proposed design change will not require any changes to the technical specifications.

The proposed change will not require any changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1364, Rev. 1, Rod Position Deviation Alarm

CHANGE DESCRIPTION

Software changes have been implemented on Unit #2 PCS to provide a computer contact output for rod position deviation. Engineering is required to provide wiring from the computer contact output to a spare annunciator window.

This design change is to provide an audible alarm utilizing an existing cable between the computer output cabinet to the multiple input cabinet. This alarm will annunciate on annunciator window box A4-8G. Annunciator window A4-8G will be engraved to read "Rod Position Deviation". The difference of Rev. 1 to Rev. 0 is that the cabinet has been changed from 2IHA-MI-EXP, Bay 33 to 2IHA-LOG-CAB, Bay 22.

SAFETY EVALUATION SUMMARY

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased because the plant computer system does not have a safety function and its failure will not affect the safety functions of other equipment.

The consequence of an accident previously evaluated in the safety analysis report will not be increased because this modification on the plant computer system has no effect on consequences of an accident previously evaluated in the UFSAR Chapter 15.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the modification of the plant computer system does not create a situation which would increase the probability of a malfunction.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the plant computer system is not used to prevent or mitigate the consequences of an accident. There should be no effect on the consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR.

The safety systems which will be affected by the proposed design change include reactor control and protection system.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because there is no configuration change such that an accident of a different type is created.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the failure of this equipment has no effect on safe plant operation and shutdown of the plant, and the failure of this equipment will not affect the safety function of other equipment.

Failure modes of the proposed design change which were reviewed included equipment failure of the plant computer system.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the change does not affect the basis of the Technical Specification, Section 3/4.1.3.2. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1366, Rev. 0, Removal of Brace from Duct Support 2HVP-DSA684N

CHANGE DESCRIPTION

The aisleway to and from the elevator at elevation 773'-6" in the Auxiliary Building (Aux. Bldg.) is impeded by the presence of a seismic support brace. This brace is used as a lateral restraint for seismic support [2HVP-DSA684N], which is on the exhaust duct for Aux. Bldg. Air Conditioning Unit (ACU), [2HVP-ACU211B].

This modification proposes to increase the usable width of the aisleway by either relocating the brace or by removing it entirely. This modification will not degrade the seismic capacity of the support.

This safety evaluation assumes that an adequate reanalysis of the seismic support is performed and that it concurs with the conclusions of the preliminary reanalysis. If this analysis indicates that the brace must be relocated, the safety evaluation will have to be re-evaluated to include possible effects of the brace on the new location and on the method of installation.

SAFETY EVALUATION SUMMARY

None of the previously analyzed accidents, including that of UFSAR Section 15.7.4, "Radiological Consequence of Fuel Handling Accidents", will be affected by this modification. In the case of a fuel handling accident in the Fuel Building, the atmosphere would be filtered by the Supplementary Leak Collection and Release System (SLCRS), UFSAR 6.5.3. The operation of the normal Aux. Bldg. Ventilation System, UFSAR 9.4.3, would not be required.

No safety-related systems or functions will be affected by this modification. The brace and support are located on a QA Category II portion of the Ventilation System. The Auxiliary Building Ventilation System is used to provide a suitable environment for personnel and equipment operation and minimizes the potential for the spread of airborne radioactive material within the building during normal operation. The normal operating portions of this system, including [2HVP-ACU211B], are considered as QA Category II and are not required to operate during accident conditions. A QA, Category I backup system (UFSAR 6.5.3) is provided for those segments of the building with equipment required during accident conditions. One exhaust path of [2HVP-ACU211B], downstream of support [2HVP-DSA684N], provides the main purge supply for containment during periods of occupancy such as during refueling. Although this ductwork is seismically supported, it does not provide a QA Category I function except for the portion between and including the inside and outside isolation valves (UFSAR 9.4.7.3.1, paragraph 4). This modification will have no effect on this safety-related portion of the system.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. No safety-related components or functions will be affected by this modification.

The consequence of an accident previously evaluated in the safety analysis report will not be increased. No systems required for the mitigation of any of the previously analyzed accidents will be affected by this modification.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. The functions of all safety-related equipment will remain unaffected by this modification. Even though the part of the ventilation system in close proximity to this modification is not safety-related, it is required to be seismically supported, and it will remain seismically supported. Therefore, no new failure modes or potential hazards will be created by the implementation of this modification.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. This modification will have no effect on any equipment important to safety.

Failure modes of the proposed design change which were reviewed included the failure of the seismic support, and the associated ductwork, because of the brace removal. However, since the ductwork will remain in compliance with seismic requirements, this is not a credible failure mode.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created. No equipment or system functions will be affected by this modification.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created. This modification will not affect the safety-related function of any equipment including that of the containment purge line isolation valves (dampers).

This modification will not adversely affect any parameters pertaining to fuel cladding, RCS boundary, or containment integrity. Containment integrity is further discussed below.

The margin of safety as defined in the basis for any Technical Specification (T.S.) will not be reduced. T.S. 3.9.9, "Containment Purge and Exhaust Isolation System" assures the ability of the containment penetrations of this system to isolate in the event of a fuel handling accident. The isolation dampers on the containment purge line are located downstream of the ACU in one of its discharge flow paths. However, they are located sufficiently downstream and are designed such that this brace removal will not adversely affect their isolation function. These dampers and the piping between them are safety-related and are designed, installed, and tested as QA Category I, Seismic Category I components. Even if the unlikely failure of the equipment or ductwork anywhere upstream of these dampers were to occur, both dampers would retain their ability to close. Therefore, the margin of safety is not reduced. The proposed design change will not require any changes to the technical specifications.

The proposed change will not require any changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1371, Rev. 0, Replace Existing 2DGS-300 Globe Valve with a 2" Gate Valve

CHANGE DESCRIPTION

The primary drains header presently has only one isolation valve, [2DGS-300], as the boundary between safety class 1 and non-safety-related piping. This modification proposes to replace 2DGS-300 with a new 2" gate valve. The existing valve is leaking b₁ and cannot be repaired.

SAFETY EVALUATION SUMMARY

None of the previously analyzed accidents of UFSAR Section 15 will be affected by the addition of this valve. The Reactor Plant Vent and Drain system is discussed in Section 9.3.3.

The portion of the Reactor Plant Drain System where the new valve will be added is considered as safety-related piping. However, the addition of this manual isolation gate valve will not have any effect on system function. It will serve only to provide better isolation capability for the drain header.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. This modification serves only to enhance the isolation capability of the primary drains header. No previously analyzed accidents will be affected by this change.

The consequence of an accident previously evaluated in the safety analysis report will not be increased. This modification will not change any system design functions nor will it provide any active safety functions.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. No safety-related equipment or functions will be adversely affected by this change. Because the new valve will be purchased and installed to QA Category I and Seismic Category I requirements, it will be deemed to be as reliable as the original design.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. The valve added by this modification will replace the existing isolation valve. This modification serves only to enhance isolation capabilities. No system functions will be affected.

Failure modes of the proposed design change which were reviewed included the leaking by of this valve. Existing valve [2DGS-300] will be replaced with a new valve, which will provide isolation as the existing valve currently does. By the replacement of [2DGS-300], the primary drains header reliability and maintainability will actually be enhanced.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created. No system functions will be changed. This modification will replace the existing valve.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created. No other equipment will be affected by this modification.

This modification will not adversely affect any parameters pertaining to fuel cladding, RCS boundary, or containment integrity. It will, if fact, provide isolation between the RCS's excess letdown lines, loop drain lines, the spray line scoop drain line, and the Primary Drains Transfer Tank (inside containment).

The margin of safety as defined in the basis for any Technical Specification (T.S.) will not be reduced because no T.S. bases, including that of T.S. 3/4.4.6.2, will be affected by this modification. The proposed design change will not require any changes to the technical specifications.

The proposed change will require a change to the Updated Final Safety Analysis Report. Figure 9.3-13 must be revised to include the new valve.

CHANGE TITLE

DCP-1390, Rev. 0, Containment Air Recirc Fans 2HVR-FN201A and 2HVR-FN210B
Status

CHANGE DESCRIPTION

Currently, when the breakers for the containment air recirculation fans 2HVR-FN201A and B are racked in and closed, the fans are on and the PCS and ERPCS computers indicate that the fans are on. However, when the breakers are racked out and the circuits are de-energized (fans are off), the PCS and ERPCS computers also indicate that the fans are on. This modification will correct the situation by rewiring the breakers to existing normally open spare contacts and set the INVERSION function in both of the computers. By performing this design change, the proper on/off status for the containment air recirculation fans will be provided whether the breakers are racked in or out.

SAFETY EVALUATION SUMMARY

There are no BVPS Unit #2 UFSAR Chapter 15 design basis accidents which are impacted by the proposed design change. This DCP will only correct the fan status information provided to the computers; therefore, there will be no effect on any accidents analyzed in UFSAR Section 15. In addition, accidents due to electrical failures should be avoided by disconnecting the power supply to the circuits prior to changing the contacts.

The BVPS Unit #2 safety systems which will be affected by the proposed design change include the containment air recirculation fans, which are non-safety related; however, they are powered from an emergency power supply and are connected to safety-related circuit breakers. There will be no adverse effect on any system.

The proposed design change increase will not the probability of occurrence of an accident previously evaluated in the safety analysis report because this design change will not affect the operability of the containment atmosphere recirculation system as described in UFSAR Section 9.4.7.1.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report because UFSAR Section 9.4.7.1.3 states that the containment atmosphere recirculation system is not required to operate during accident conditions. Since this modification will not affect the operation of the fans, consequences of previously evaluated accidents will not increase.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because the containment air recirculation fan controls will remain unchanged, and therefore will still automatically stop the fans on an SI signal, a high containment water level, or a fan high-high vibration signal to protect the integrity of the emergency power source, as stated in UFSAR Section 9.4.7.1.3.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because this modification will be performed to provide the proper PCS and ERPCS computer indications for the on/off status of the containment air recirculation fans and will not increase the consequences of a malfunction of safety equipment.

There is no change in failure modes associated with this proposed design change since nothing will be added or deleted, just a change of terminals to an existing spare set of normally open contacts and setting the INVERSION function in the PCS and ERPCS for points Y3599D and Y3600D.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report the containment atmosphere recirculation system is not required to operate during accident conditions. Implementation of this design change will not create the possibility of a different type of accident than previously evaluated in the UFSAR.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report this design change will provide the correct on/off status for the containment air recirculation fans at the PCS and ERPCS computers and will involve work on safety-related circuits; however, the emergency power supply to these circuits will be disconnected prior to making the proposed modifications. Therefore, the possibility of a malfunction of a different type than previously evaluated in the UFSAR will not be created.

The proposed design change will not reduce the margin of safety as defined in the basis for any Technical Specification. This design change will not affect the operability of the containment atmosphere recirculation system. Its ability to maintain the bulk air temperature in containment to 105°F during normal plant operation will not be degraded. Therefore, the margin of safety as defined in Technical Specification Basis 3/4.6.1.5 will not be reduced. The proposed design change will not require any changes to the technical specifications.

The proposed change will not require a change to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1403, Rev. 0, 2RCS*MOV535 and 536 OPEN/NOT OPEN Contact Indication

CHANGE DESCRIPTION

The Safety Parameter Display System (SPDS) provides a concentrated display of a minimum set of parameters which define the safety status of the plant. The SPDS is a function of the Emergency Response Facility Computer System (ERFCS). The ERFCS obtains its database from the Plant Computer System (PCS) database.

The SPDS has been subjected to a Verification and Validation (V&V) program to assure its adequacy. A plant-specific evaluation of BVPS-2 has resulted in the determination of the specific parameters to be displayed and they are listed in WCAP - 1070. The WCAP - 1070 is referenced in UFSAR Section 18.2.1 and is part of the V&V requirement.

The WCAP - 1070 calls for the OPEN, INTERMEDIATE, and CLOSED positions of the Pressurizer Relief Block Valves (2RCS*MOV535 and 2RCS*MOV536). To realize this, both OPEN/NOT OPEN and CLOSED/NOT CLOSED indication is needed. Currently, the OPEN/NOT OPEN indication is available when the Reactor Coolant System (RCS) cold overpressure mitigation system is in the ARM mode, but it is not available when in the BLOCK mode. (2RCS*MOV537 is already correct because it is not part of the RCS cold overpressure protection system.)

This DCP proposes to modify the indication circuitry to provide the OPEN/NOT OPEN indication no matter which mode the cold overpressure mitigation system is in. Presently, the circuit consists of two (2) contacts, in series, that sense first, the overpressurization mode (ARM or BLOCK) and second, the valve position (OPEN or NOT OPEN). The contact from the overpressurization mode will be removed so that the OPEN/NOT OPEN signal will be sensed, and sent to the computer system, independent of the mode selection. Both train A and train B will be modified in this manner.

The OPEN/NOT OPEN signal will be rerouted such that it will go to one of the alarm screens of the PCS. An audible alarm associated with these screens will sound in the Control Room when a valve is in the NOT OPEN position. This will essentially replace the alarm function of annunciator window A4-C2 which presently alarms when a valve is NOT OPEN and the cold overpressurization mitigation system is in ARM. Therefore, this annunciator window will be spared.

Both the annunciator and the computer are non-safety related. These portions of the circuitry will remain properly separated from safety related portions via the signal isolators in the annunciator isolation cabinets.

This DCP will affect only the computer and annunciator indications for these valves. The annunciator alarm will be replaced by the equally reliable computer system alarm. The associated computer point nomenclatures will be changed as applicable, since the computer will now sense the valve positions regardless of the overpressurization mode. All other indication and controls associated with these valves, including control board indicating lights and control logic, will remain unchanged. Therefore, the reliability and design function of the valves will be maintained.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP because this DCP does not adversely affect any safety or non-safety systems, does not exacerbate any existing accidents, and does not introduce any new hazard beyond that already considered in the UFSAR.

This DCP will not adversely affect the safety function of any system. The reliability and performance of the Block Valves will be maintained and no other systems will be affected.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability and performance of the Block Valves, and it will have no effect on any other equipment; therefore, no probabilities of occurrence of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability and performance of the Block Valves and of the cold overpressure mitigation system is being maintained.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any safety related system or component functions.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety system used to mitigate an accident. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the design features and functions of the equipment have not been significantly altered.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. The reliability and performance of the Block Valves and cold overpressure mitigation system will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. The reliability and performance of all systems will be maintained. The fundamental design features and functions will not be changed in a way that creates the possibility of a malfunction of a different type. The Annunciator System alarm will be replaced with an equally reliable PCS alarm. Proper signal isolation between safety and non-safety related portions of the circuitry will be maintained.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications, including 3/4.3.3.8, 3/4.4.9.3, 3/4.4.11. This DCP will not require any changes to the technical specifications.

This DCP will require change to the UFSAR. Figures 7.2-1 (Sheets 17 and 18), 7.2-22 and 7.2-23 must be revised to show that the Control Room Annunciation will now be via the PCS rather than by the annunciator system and that the cold overpressure mitigation system does not input a signal to this part of the Block Valve logic.

CHANGE TITLE

DCP-1440, Rev. 0, Main Unit Generator Seal Oil System Drain and Vent Valve Addition

CHANGE DESCRIPTION

The objective of this design change is to add six (6) 3/4" threaded end globe valves will allow periodic blowdown of the two (2) system Cuno filters to remove accumulated sludge and will provide an efficient method of draining and filling the two (2) system heat exchangers. Presently, pipe plugs exist at the valve addition locations. A capped drain valve will be added to the hydrogen side Cuno Filter [2GMC-FLT204] and the air side Cuno Filter [2GMO-FLT203]. A capped drain and vent valve will be added to the hydrogen side Oil Cooler [2GMO-E21] and the air side Oil Cooler [2GMO-E22].

SAFETY EVALUATION SUMMARY

The BVPS-2 UFSAR, Chapter 15 design basis accidents were reviewed to identify what design basis accident could be impacted by the proposed modification. There is no safety related equipment in the turbine buildup. None of the BVPS-2 Chapter 15 Safety Analyses will be affected by this modification.

No safety system will be adversely affected by the proposed design change. The addition of the valves will not affect the hydrogen seal oil system to prevent hydrogen leakage or air leakage through the generator shaft seals. It is not safety related.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report because the functions of all safety related equipments and systems will be unaffected by this modification. The addition of valves has no way to cause turbine overspeed turbine trip events. It has no safety function.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report because no equipment or systems required to mitigate the consequences of any previously analyzed accident will be affected by this modification.

No new credible failure modes will be created by the implementation of this modification. There will be no functional change to any safety related equipment, systems or structure.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report because all equipment and system functions will be performed in the same manner as before. There is no configuration change such that an accident of different type is created.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report because no new failure modes or potential hazards will be created by the implementation of this modification. The failure of this equipment has no effect on safe plant operation and shutdown of the plant, and the failure of this equipment will not affect the safety function of other equipment.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because the hydrogen seal oil system is not used to prevent or mitigate the consequences of an accident. There should be no effect on the consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report because all equipment and system functions will be performed in the same manner as before. There is no configuration change such that an accident of different type is created.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report because no new failure modes or potential hazards will be created by the implementation of this modification. The failure of this equipment has no effect on safe plant operation and shutdown of the plant, and the failure of this equipment will not affect the safety function of other equipment.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification. No T.S. basis will be affected in any way in this modification. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. Additional valves should be added on Figure 10.2-9.

CHANGE TITLE

DCP-1456, Rev. 1, DRMS, RM-11 Software Revisions

CHANGE DESCRIPTION

The Digital Radiation Monitoring System (DRMS) computers (RM-11) require modifications to existing software to correct deficiencies identified during the testing and operation of this system. The deficiencies are summarized as follows:

- 1) A cold start of the DRMS cannot be completed with only one of the two RM-11 system computers operational. Excessive computer communications during the initial startup process is believed to inhibit the single computer startup capability.
- 2) The DRMS/ERFCS communication over the DRMS/ERFCS datalink is experiencing intermittent failures. The cause of these failures is believed to be caused by the RM-11 computers taking excessive time to respond to a data request from the Emergency Response Facilities Computer System (ERFCS).
- 3) The Digital Equipment Corporation (DEC) error log function cannot be activated on the existing DRMS system.
- 4) During the startup, acceptance testing and initial operation of the DRMS site specific modifications to the RM-11 computer software were initiated. This design change will incorporate and permanently install these revisions.

This DCP will involve DRMS software changes to solve the above problems. In addition, the ERFCS and ARERAS software that directly interfaces with the DRMS RM-11 data link software will be reviewed and modified as required to operate efficiently with the revised DRMS software.

The Atmospheric Radioactive Effluent Release Assessment System (ARERAS) computer uses radiation data from the Unit 2 DRMS (or the Unit 1 SPING systems) and meteorological information from the meteorological tower to calculate offsite dose projections in support of the DVPS Emergency Preparedness Plan. The ARERAS computer is physically located in the ERF Building. UFSAR Figure 11.5-8 schematically shows the DRMS to ARERAS data link.

This DCP will maintain the reliability and performance of the DRMS, ARERAS and ERFCS and will not adversely affect any other equipment. The DRMS will remain properly isolated from the safety-related parts of the radiation monitoring system.

SAFETY EVALUATION SUMMARY

No Unit 2 Chapter 15 accidents will be affected by this DCP because this DCP does not adversely affect any safety or non-safety systems, does not exacerbate any existing accidents, and does not introduce any new hazard beyond that already considered in the UFSAR.

This DCP will not adversely affect the safety function of any system. The reliability and performance of the DRMS, ARERAS and ERFCS will be maintained and no other systems will be affected.

The probability of an occurrence of an accident previously evaluated in the UFSAR will not be increased. This DCP will maintain the reliability and performance of the DRMS, ARERAS and ERFCS and it will have no effect on any other equipment; therefore, no probabilities of occurrence of any accidents will be increased.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP is minor and the change will have no effect on any other equipment. This DCP will not affect any parameter which would increase the consequences of an accident beyond that previously considered in the UFSAR. The reliability and performance of the DRMS, ARERAS and ERFCS is being maintained.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP is minor and the changes will not adversely affect any equipment, including the DRMS, ARERAS and ERFCS.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety system used to mitigate an accident. Therefore, there will be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the fundamental design features and functions of the equipment have not been significantly altered. This is a relatively minor change.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the reliability and performance of the DRMS, ARERAS and ERFCS will be maintained. Nothing is being added or altered in a way which creates the possibility of a different type of accident.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. This DCP is minor and the reliability and performance of the DRMS, ARERAS and ERFCS will be maintained. The fundamental design features and functions will not be changed in a way that creates the possibility of a malfunction of a different type. The DRMS will remain properly isolated from the safety-related parts of the radiation monitoring system.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification Bases.

The Technical Specification index was reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specifications because the reliability and operability of the DRMS, ARERAS and ERFCS will be maintained, and no other equipment will be affected. This DCP will not require any changes to the technical specifications.

This DCP will not require any changes to the UFSAR.

CHANGE TITLE

DCP-1469, Rev. 0, RTD Bypass Manifold Elimination

CHANGE DESCRIPTION

The Resistance Temperature Detector (RTD) Bypass System during plant operation has been a major contributor to plant outages as well as to an increase in Occupational Radiation Exposure. Worker radiation exposure has primarily been associated with maintenance of the RTD Bypass Manifold piping and to crud traps of the Reactor System Loop Compartment. Plant shutdowns on Unit #1 have been associated with excessive primary leakage in valves and through interruptions of bypass flow due to valve stem failures.

The objective of this modification is to replace the RTD Bypass System with a temperature measurement system using RTDs in thermowells in the reactor coolant loop piping. This modification is intended to resolve the following problems associated with the RTD Bypass manifolds:

- 1) The elimination of the Kerotest valves, along with the RTD bypass manifold and associated piping, will satisfy the NRC and INPO concerns relative to misapplication of packless metal diaphragm valves.
- 2) The installation of new RTDs, which will be required to meet the time response requirements of the Technical Specifications, will satisfy the BVPS-2 time response issue and eliminate the need for JCOs.
- 3) The elimination of the RTD bypass manifold and associated piping will significantly reduce the radiation exposure in the reactor coolant pump cubicles.
- 4) This modification will enhance the general reliability of the plant and eliminate forced outages as a result of problems associated with maintenance and/or operability of the RTD bypass manifold.

SAFETY EVALUATION SUMMARY

The design basis accidents which were reviewed for potential impact by the proposed design change included core thermal limit protection, loss of electrical load/turbine trip, uncontrolled RCCA bank withdrawal at power, CVCS malfunction that results in decrease in the RCS boron concentration (Mode 1), partial loss of forced reactor coolant flow, reactor coolant pump locked rotor, steamline break outside containment, and reactor core response to excessive secondary steam release (at power). WCAP-12478 describes the extensive analyses, evaluation, and testing performed to ensure the new design meets all safety, licensing, and control requirements necessary for the safe operation of the plant. It will not introduce any new hazard beyond that already evaluated in the UFSAR.

The BVPS-2 safety systems that will be affected by the proposed design change are the reactor coolant system, main steam system and containment system. WCAP-12478 evaluated the safety function of the affected systems. The reliability, integrity and operability of these safety systems will be maintained.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in Safety Analysis Report because the new thermowell mounted RTDs have a response time equal to or better than the old bypass piping transport, thermal lag, and direct immersion RTD. This allows the total RCS temperature measurement response time to remain unchanged.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report because Westinghouse WCAP-12478 evaluated the effects of the RTD Bypass Elimination on the uncertainties associated with reactor setpoints that supported the continuing validity of the current LOCA and non-LOCA safety analysis assumptions for the transients in UFSAR Chapter 15.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because the elimination of the RTD bypass piping will not affect the input of LOCA and non-LOCA transient analysis previously evaluated in the safety analysis report.

The consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased because the change does not affect the safety function of the components.

Failure modes of the proposed design change which were reviewed included the resistance temperature detector failure causing OTDT/OPDT protection failure.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created because the magnitude of the uncertainties affected by this change associated with RCS temperature and flow measurement, which are used in the LOCA and non-LOCA transient analysis, will not be affected.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created because the change does not affect the safety function of the components. These transients protected by OTDT/OPDT are not affected.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The margin of safety as defined in the basis for any Technical Specification will not be reduced because the change does not affect the basis of Technical Specification Section 3/4.3.1.

The proposed design change will require change to the technical specifications. Reactor setpoints on loss of flow, overtemperature delta T, and overpower delta T on Technical Specification Table 2.2-1 will be changed. Tables 3.2-1, 3.3-1 and 3.3-2 will be revised.

The proposed change will require changes to the Updated Final Safety Analysis Report on Sections 5.4.3.1, 5.4.3.2, 5.4.3.4, 7.2.1.1.4, 7.2.2.3.2, 7.7.1.1, 7.7.1.2.1, 7.7.1.3.3, 7.7.1.8, 7.7.1.8.1, 7.7.1.8.2, 7.7.2.1, Table 5.1-2, and Figures 5.1-1, 5.1-2, 5.1-3, 5.1-4, 5.1-5, 5.1-6, 5.1-7, 7.2-1, 7.7-1, 7.7-2, 7.7-5, 7.7-7, 7.3-14, 7.3-15, 7.3-16.

CHANGE TITLE

DCP-1498, Rev. 2, RWST LO-LO Bistables

CHANGE DESCRIPTION

No Control Room (CR) indication presently exists to alert CR operators that the RWST LO-LO bistables, for safety injection transfer to recirculation, are placed in the bypass position [2QSS-LSLL-104A, B, C and D]. IEEE-279 requires that continuous indication is provided in the CR if the protective action of some part of a system is bypassed or deliberately rendered inoperative for any purpose.

This modification proposes to provide the required indication via four (4) existing spare status lights and provide the existing containment high-high bistable circuitry with approved signal isolators. All of the necessary wiring changes will occur inside of the Primary Process Racks [RK*2PRI-PROC-1, 2, 3, and 4]. The changes will include wiring from contacts, located in the 7300 comparator trip switch, through an annunciator interface card (qualified isolation device) to a termination panel. One annunciator interface card will be added to [RK*2PRI-PROC-4].

The installation will adhere to the proper methods of isolation that are required between all safety-related and non-safety related portions of electrical systems. The 4 status light nomenclatures will be identified as RWST LO-LO Level TEST.

SAFETY EVALUATION SUMMARY

These bistables provide a signal to initiate transfer from the safety injection mode to the recirculation mode. Therefore, they are required to help mitigate any of the previously analyzed accidents where safety injection is required. Numerous accidents were reviewed for any possible impact caused by this modification, including those discussed in UFSAR Sections 15.1.4, 15.1.5, 15.2.8, 15.6.1, 15.6.3, and 15.6.5. The possibility of any adverse effects was not found.

The safety systems that will be affected by the proposed design change include the Quench Spray System, Safety Injection System, and the Plant Process Control System. However, this modification will have no adverse effects on any of these systems. No safety-related functions will be changed, and the installation will meet the isolation requirements that must be implemented when electrical work involves both safety-related and non-safety related portions.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report. These bistables and status lights are not involved in the initiation of any of the previously analyzed accidents. Therefore, the possibility of an increase of occurrence will not be created.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. The protective function of these bistables is to provide a signal on RWST LO-LO level to transfer from safety injection to recirculation. This function will be unaffected by this modification.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related systems or their functions will be adversely affected by this modification.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. No safety-related components or their functions will be adversely affected by this modification.

No new failure will be created by the implementation of this modification. Signal isolators will preclude the possibility of a failure in a non-safety related portion of a circuit from affecting any of the safety-related portions. The modification will be installed as safety-related (QA Category I) from the bistables, to and including the signal isolators in the Primary Process Racks and will be installed as non-safety related (QA Category II) from the process racks to the status lights. All of the modification will be installed as seismic.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. No new potential hazards will be created by the implementation of this modification.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. No safety-related or non-safety related system or component functions will be adversely affected.

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and that result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification (T.S.). No T.S. or its bases will be adversely affected by this modification, including those in T.S. Sections 3/4.1.2 and 3/4.3.2. This modification will provide indication to the CR operators that a bistable has been removed from service for maintenance or testing. The requirements of T.S. 3/4.3.2.1 will continue to be met. The proposed design change will not require a change to the technical specifications.

The proposed change will require a change to the Updated Final Safety Analysis Report. Section 6.3.5.4 should mention the status lights (both the LO-LO LEVEL status lights and these bistable in TEST status lights).

CHANGE TITLE

DCP-1500, Rev. 0, Steam Generator Blowdown Drain Line

CHANGE DESCRIPTION

During outage situations, no existing drain paths to the secondary side of the steam generators were available with the steam generators at atmospheric pressure, except to the steam generator blowdown tank. The gravity drain path to the steam generator blowdown hold tanks is undesirable due to these tanks being utilized for liquid waste processing. Presently, 3/4 inch vent paths are utilized to drain the secondary side of the steam generators after flushing; draining via the vent path is very time-consuming.

The purpose of this design change is to install a 3-inch diameter drain valve and associated piping, utilizing the existing 3-inch diameter future wet layup connection available in the Turbine Building. The piping connection after the valve shall be threaded to allow for connection of a 2-1/2 inch diameter fire hose, which will be field routed to an acceptable catch basin.

SAFETY EVALUATION SUMMARY

The BVPS-2 UFSAR, Chapter 15 design basis accidents were reviewed to identify what design basis accidents could be impacted by the proposed modification. None of the previously analyzed accidents of UFSAR Chapter 15 will be affected by this design change. Steam generator blowdown system is discussed in Section 3.4.8.

No safety system will be adversely affected by the proposed design change. The portion of the steam generator blowdown system where the new valve and piping will be added is considered non-safety related. It will serve only to provide a faster method of draining the secondary side of the steam generators during outage situations.

The probability of an occurrence of an accident previously evaluated in the safety analysis report will not be increased. This modification serves only to enhance the drain paths to the secondary side of the steam generators after flushing. No previously analyzed accidents will be affected by this change.

The consequence of an accident previously evaluated in the safety analysis report will not be increased. This modification will not change any system design functions nor will it provide any active safety functions.

The probability of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. No safety-related equipment or function will be adversely affected by this change because the affected piping and the new valve is considered non-safety related.

The consequence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report will not be increased. The new piping and valve added by this modification serves only to enhance the drain paths to the secondary side of the steam generators after flushing. No system functions will be affected.

Failure modes of the proposed design change which were reviewed included the failure of the newly added piping and valve. Existing drain path to the new piping is normally isolated by two locked closed valves in series. Failure of the new piping and valve will have no functional changes to any safety-related equipment system and structures.

The possibility for an accident of a different type than previously evaluated in the safety analysis report will not be created. No system functions will be changed. This modification will perform the same function as the 3/4 inch drain path, but allow faster drain down the steam generators during outage situations.

The possibility for a malfunction of equipment important to safety of a different type than previously evaluated in the safety analysis report will not be created. No other equipment will be affected by this modification.

There are no parameter changes associated with this design change which could affect the course of any accident analysis supporting technical specification bases.

The margin of safety as defined in the basis for any Technical Specification (T.S.) will not be reduced because no T.S. bases will be affected by this modification. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. UFSAR Figure 10.4-23 must be revised to include the added steam generator blowdown system piping and valve.

CHANGE TITLE

DCP-1502, Rev. 1, Unit 2 Modifications for Heat Exchangers Performance Monitoring

CHANGE DESCRIPTION

NRC Generic Letter 89-13 requires each licensee to establish an acceptable Surveillance Monitoring Program to ensure that safety-related heat exchangers that are cooled by Open Loop Cooling Water Systems (such as Service Water) are not allowed to degrade excessively without being detected and corrective actions taken. This modification will add thermowells, pressure taps, and ultrasonic flow instruments to provide for performance monitoring of heat exchangers. Where ultrasonic flow meters are being installed, short sections of carbon steel SWS piping will be replaced with stainless steel sections. This will provide an added benefit of an access way for inspection and cleaning of piping. Use of ultrasonic flow meters will allow for flow monitoring without degrading flow through the system.

This design change will be installed in two phases. Phase I (which includes modifications near 2HVP*CLC265A and B; 2RSS*E21A,B,C, and D; and 2HVR*ACU207A and B) will be installed 2R while Phase II (which includes modifications near 2CCP*E21A,B,C; 2HVR*ACU208A,B; 2CHS*E25A,B,C; 2EGS*E21A,B; and 2EGS*E22A and B) will be installed 3R.

SAFETY EVALUATION SUMMARY

None of the design basis accidents in Chapter 15 of the Unit UFSAR are affected by this design change.

Modifications will be made to the Service Water System piping and the Charging Pump Lube Oil piping, however, the current design and operating parameters will not be changed and no new control or protective functions will be added; therefore, no safety systems will be adversely affected by this design change.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the the safety analysis report because the proposed modifications will add monitoring instrumentation only. This instrument will not provide any control or protective functions. The instrumentation will be installed to the appropriate design and seismic requirements. The existing system flowpaths and functions will not be changed. Each task in this design change is independent of the others. Providing that each task is completed once started, partial completion of this design change does not increase the probability of a previously evaluated accident.

The proposed design change does not increase the consequences of an accident previously evaluated in the safety analysis report because use of this modification will provide early warning of service water flow degradation due to fouling and will not affect the consequences of any accidents previously evaluated in the UFSAR.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report this design change will not alter any parameters of the affected systems and will not change system operations in any way.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. Because of the passive nature of this design change and that the system will remain equivalent to the original design. Because the instrumentation is of a passive nature (does not provide protective or control functions) and does not alter the existing operation of the affected systems, no new failures are created.

The design and operating parameters of the affected systems are not changed by this design change. This design change will be installed to the appropriate quality and seismic requirements.

No new control or protective functions will be performed and no changes to the existing design and operation are being made; also, this design change will be installed to the appropriate quality and seismic requirements.

No parameters that affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary or Containment integrity are affected by this design change.

No Technical Specifications or bases are affected by this design change. The proposed design change will not require change to the technical specifications.

The proposed change will require changes to the Updated Final Safety Analysis Report. UFSAR Figures 9.2-1 and 9.2-4 should be revised to show the locations of the performance monitoring instrumentation as a minimum.

CHANGE TITLE

DCP-1545, Rev. 0, Replacement of Diesel Generator 2-1 and 2-2 Automatic Loading Sequence Timer Relays

CHANGE DESCRIPTION

The motor driven time delay relays that allow electrical loads to be sequentially added to BVPS-2 Emergency Bus 24E (2DF) are not operating at the predetermined time interval required in relay calibration procedure 1/2 RCP-30.

Station Electrical Maintenance has requested a suitable replacement for 16 ATC Type 305E motor driven time delay relays.

Engineering shall replace all ATC motor driven Type 305E time delay relays with ATC's highly reliable solid state digital time delay relays.

Modification of each sequencer panel [PNL*SED-244(254)] is necessary to make possible the replacement of the round-style panel mounted 305E relays with ATC's newer 72 MM. square DIN size enclosure.

SAFETY EVALUATION SUMMARY

Unit #2 UFSAR Chapter 15 design basis accidents that are impacted by the proposed design change include the Loss Of Offsite Power accident described in Section 15.2.6 of the UFSAR which is not affected by this design change. The new solid-state relays will be a direct one-for-one exchange with the existing electromechanical relays with only minor modifications to the sequencer panels for mounting purposes.

Unit #2 safety systems which will be affected by the proposed design change include the operation of the Emergency 4KV Power Supply System, which is not changed by this modification. The system will continue to perform the same function in the manner as it presently does.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report because the probability of the occurrence of a Loss Of Offsite Power (LOOP) accident as described in Section 15.2.6 of the UFSAR is not changed by this design change.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report the consequences of a LOOP accident are not increased because the new sequencing will perform identically to the original relays, and will meet the same quality requirements as the original relays. The new relays will be at least reliable as the existing relays (UFSAR, Section 8.3).

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because the new relays will be purchased to the quality and EQ requirements of the existing relays, and are deemed to be at least as reliable. Thus, they will not increase the probability of a malfunction of equipment important to safety.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report because malfunction of a relay will not increase the consequences of a Loss Of Offsite Power accident because a redundant Emergency Diesel Generator, capable of 100% of the power, needs to achieve safety shutdown exists on the opposite train, as evaluated in UFSAR Section 15.2.6.

The only credible failure mode is that the relay will not start the pump or other safety-related equipment as required by the sequencer. This is not a new concern because these relays replace older versions that perform the same function, also, a redundant train diesel generator exists to provide additional protection against a single failure.

The proposed change will not create the possibility of an accident type than previously evaluated in the Safety Analysis Report because the new relays perform the same function as the existing relays. No changes to any circuits are required for this installation. Panel modifications to fit the new relays will be seismically qualified.

The proposed change will not create the possibility of a malfunction of a different type than previously evaluated in the Safety Analysis Report. The new relays will perform the same function as the existing relays without any modifications to the existing circuits (a direct one-for-one swap).

There are no changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity that are being made by this change.

The proposed design change will not reduce the margin of safety as defined in the basis for any Technical Specification because the provisions of Technical Specifications 3/4.8.1 and 3/4.8.2 are not affected. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1567, Rev. 0, Replacement of Recirculation Spray Pump Timer/Relays

CHANGE DESCRIPTION

The motor driven time delay relays that allow the Recirculation Spray Pumps to be energized from BVPS-2 Emergency Bus 2AE (2DF) are not operating at the predetermined time interval required in the Technical Specifications.

Station Electrical Maintenance has requested a suitable replacement for ATC Type 305E motor driven time delay relays.

Engineering shall replace all four (4) ATC motor driven Type 305E time delay relays with ATC's highly reliable solid state digital timer/relays, type 365A.

Modification of each Recirculation Spray Pump 4KV cubicle is necessary to make possible the replacement of the round-style panel mounted 305E relays with ATC's newer 72 MM. square DIN size enclosure.

SAFETY EVALUATION SUMMARY

Unit #2 UFSAR Chapter 15 design basis accidents that are impacted by the proposed design change, including the Main Steam Line Break accidents described in Section 15.1.5 and Loss of Coolant Accidents in Section 15.6.5 of the UFSAR were reviewed; they are not affected by this design change. The new solid-state relays will be a direct one-for-one exchange with the existing electromechanical relays with only minor modifications to the Recirculation Spray Pump cubicles for mounting purposes. No wire changes are needed.

There are no BVPS Unit #1 or Unit #2 safety systems that will be affected by the proposed design change. The operation of the Recirculation Spray System is not changed by this modification. The system will continue to perform the same functions in the same manner as it does presently.

The proposed design change will not increase the probability of occurrence of an accident previously evaluated in the safety analysis report. The probability of occurrence of any of the accidents listed above is not changed by this design change. The new solid state relays are direct one-for-one exchange with the existing electromechanical relays with only minor modifications to the panels for mounting purposes.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. The consequences of the above listed accidents are not increased because the new relays will perform identically to the original relays and will meet the same quality requirements. The new relays will be at least as reliable as the existing ones. (UFSAR 5.2.2.2.2)

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. The new relays will be purchased to the same quality and EQ requirements as the existing relays and are considered to be at least as reliable. Thus, they will not increase the probability of a malfunction of equipment important to safety.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. Malfunction of a relay will not increase the consequences of any of the above accidents because a redundant independently powered train of Recirculation Spray equipment capable of 100% of the design requirements needed to achieve safety shutdown exists on the opposite train.

The only credible failure mode is that the relay will not start the Recirculation Spray pump as required. This is not a new concern because these relays replace older versions that perform the same function; also, a redundant train of RSS equipment exists to provide additional protection against a single failure.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report the new relays perform the same function as the existing relays. No changes to any circuits or wiring are required for this installation. Panel modifications to fit the new relays will be seismically qualified.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. The new relays will perform the same function as the existing relays without any modifications to the existing circuits (a direct one-for-one swap).

No changes in parameters which affect the course of any accident analysis supporting Technical Specification bases and result in exceeding the acceptance criteria for fuel cladding, RCS boundary, or containment integrity are being made.

The proposed design change will not reduce the margin of safety as defined in the basis for any Technical Specification. The provisions of Technical Specification 3/4.6.2.2 are not affected by this design change. The proposed design change will not require change to the technical specifications.

The proposed change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

DCP-1576, Rev. 0, Fuel Transfer Tube Blind Flange Modification

CHANGE DESCRIPTION

This design change proposes to install a fitting on the fuel transfer tube blind flange separate from the testport.

During 7R at Unit 1, the fuel transfer tube blind flange was installed such that the gaskets were mispositioned. Following the installation, the blind flange was successfully Type B tested. The Type B test was successful because the mispositioned gaskets effectively covered the testport (i.e. the gasket interspace was never pressure tested). This new fitting will be installed approximately 90° from the testport and will allow a pressure gage to be attached to ensure the interspace between the two gaskets is pressurized.

SAFETY EVALUATION SUMMARY

There are no BVPS Unit 2 Chapter 15 design basis accidents impacted by this DCP because test connections are not specifically addressed in the accident analysis.

The fuel transfer tube blind flange is part of the containment system; however, the proposed new fitting will not adversely affect safety because the potential leakage path will be sealed when not in use.

The probability of an occurrence of an accident previously evaluated in the safety analysis will not be increased. This change does not affect any Chapter 15 analysis, and does not, therefore, affect the probability of those accidents.

The consequences of an accident previously evaluated in the UFSAR will not be increased. This DCP is minor and the change to the blind flange will not affect any other safety systems or components.

The probability of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP only modifies the blind flange; this type of a malfunction was not previously evaluated.

The consequences of a malfunction of equipment important to safety as previously evaluated in the UFSAR will not be increased. This DCP will not adversely affect any parameter which would increase the consequences of a malfunction. This DCP will not adversely affect any safety system used to mitigate an accident. Therefore, there should be no effect on the consequences of a malfunction of equipment important to safety.

This DCP will not cause any new credible failure modes because the fundamental design features and functions of the equipment have not been altered. This DCP adds a test fitting.

The possibility for an accident of a different type than previously evaluated in the UFSAR will not be created. This DCP is minor, and the existing gasket interspace will be drilled for a fitting for a pressure gage; therefore, the change is not significant enough to create the possibility for an accident of a different type than analyzed in the UFSAR.

The possibility for a malfunction of a different type than any previously evaluated in the UFSAR will not be created. Again, because this DCP is so minor, and the proposed new fitting would have the same type of malfunctions as the original testport, the possibility of malfunction of a different type is not created.

This DCP will not change any parameter which affects the course of any accident analysis supporting Technical Specification bases.

The Technical Specification index and Specification 3/4.6.1 and 3/4.6.3 were reviewed to determine if any bases might be affected. It was determined that this DCP will not adversely affect the margin of safety as defined in the bases for any Technical Specification because the reliability of the flange seals will be maintained, and no other equipment will be affected.

The proposed design change will not require a change to the technical specifications. The blind flange is indicated for Penetration No. 55 in Tech Spec 3/4.6.3. Blind flanges in general are addressed in surveillance 4.6.1.1.a.

The proposed change will not require a change to the Updated FSAR. Section 9.1.4.3.3 identifies that leak-check provisions for the flange are provided.

CHANGE TITLE

DCP-1589, Rev. 0, Steam Generator Level

CHANGE DESCRIPTION

The BVPS Unit 2 narrow range steam generator level instruments are currently experiencing level shifts of 6-10% during power ascension. This level shift occurs on all three steam generators and begins at approximately 45% power. Engineering believes the changes in steam generator pressure resulting from the plant power level changes creates a siphoning effect on the reference leg from the condensing pot back into the impulse lines. The impulse lines contain Kerotest metal diaphragm globe valves which are installed on a 45 degree upward slope toward the condensing pot. When the impulse lines fill with water, a negative pressure is drawn on the reference leg causing the instrumentation to indicate an increase in level in the steam generator. Duquesne Light is currently operating under a justification for continued operation (JCO) with reduced steam generator narrow range low and low-low setpoints provided and approved by Westinghouse Electric.

Engineering recommends rotating the Kerotest isolation valves by placing the stem in the horizontal plane to allow condensate and steam to pass through the valve more efficiently. In addition, the condensate pots will be lowered maintaining a one inch per foot slope toward the steam generator thereby removing the current 45 degree incline. This will eliminate the negative pressure effect on the reference legs should the impulse lines fill the water. Lowering of the reference legs will require replacing the narrow range Barton transmitters and re-scaling both the narrow and wide range level transmitters to reflect the shorter reference legs.

Completion of this design change will allow BVPS Unit 2 to operate without a JCO from Westinghouse and remove the requirements for reducing the low and low-low steam generator setpoint prior to increasing reactor power >45%.

Components associated with this change are located in the Reactor Containment Building Elevations 790' and 760' near Steam Generators A, B and C. This design change is QA Category I, seismic and electrical Class 1E.

SAFETY EVALUATION SUMMARY

The following Design Basis Accidents from UFSAR Chapter 15 (Unit 2) were reviewed: Excessive Increase in Secondary Steam Flow (15.13), Inadvertent Opening of S/G Relief or Safety Valve (15.1.4), Spectrum of Steam Piping Failures (15.2.7), Loss of Offsite Power (15.2.6), Loss of Normal Feedwater (15.2.7), and Feedwater Line Break (15.2.8). None of these accident scenarios are affected by this design change.

Feedwater Isolation, Main Steam Isolation, and Safety Injection receive signal from Feedwater Level Control. These safety systems will not be affected, adversely or otherwise, by this design change. The operation of these systems will not be changed and will continue to operate as described in UFSAR.

The proposed design change will not increase the consequences of an accident previously evaluated in the safety analysis report. This design change will correct deficiencies in the Steam Generator Level Control System to allow it to work as described in the UFSAR sections 10.3, 10.4, 15.1, and 15.2.

The proposed design change will not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. The possibility of spurious operation of Feedwater Isolation, Main Steam Isolation, or safety injection resulting from a malfunction of S/G Level Control will not be increased. Sufficient redundancy exists in the logic for initiation of these signals that spurious operation or failure of any part of this design change will not in itself initiate any of these events.

The proposed design change will not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the safety analysis report. The consequences remain bounded by the descriptions of the accidents listed above as described in the UFSAR.

This design change introduces no new failure modes. Most of the work involves relocating, reorienting, and recalibrating existing equipment or equivalent replacements while maintaining the existing flow paths and function.

The proposed design change will not create the possibility of an accident of a different type than previously evaluated in the safety analysis report. This design change will enhance the performance of the existing system but correct deficiencies in the current design. The system configuration and operation will not be changed and will require no changes to any existing safety limits.

The proposed design change will not create the possibility of a malfunction of a different type than previously evaluated in the safety analysis report. All replacement parts (transmitters, valves, etc.) will meet the design requirements of the existing equipment for QA category, seismic, EQ and other categories as required.

No changes in parameters that affect the course of any accident analyses supporting Technical Specification bases are being made.

The proposed design change does not reduce the margin of safety as defined in the basis for any Technical Specification. None of the Technical Specifications in Section 3/4.5 or 3/4.7 are affected by this design change. The proposed design change will require change to the technical specifications.

The change will not require changes to the Updated Final Safety Analysis Report.

CHANGE TITLE

TER-1144, Rev. 0, Change of QA Category for PAL Hydraulic System

CHANGE DESCRIPTION

This TER proposed to reclassify the hydraulic system for the Personnel Air Lock (PAL) as Q.A. Category III, Seismic Category II. The system was originally purchased along with the Containment Liner via 2BVC-65, and was classified as Q.A. Category I, Seismic Category I. However, the system does not perform any safety related function and it does not contain radioactivity thereof, a reclassification to Q.A. Category III, Seismic Category II is in order.

SAFETY EVALUATION SUMMARY

The probability of an accident previously evaluated in the Safety Analysis Report will not be increased. None of the previously analyzed accidents of UFSAR section 15, "Accident Analyses" will be affected, in any way, by the PAL hydraulic system reclassification.

The consequences of an accident previously evaluated in the Safety Analysis Report will not be increased. This reclassification will not affect any systems or component required for the mitigation of any of the previously analyzed accidents.

The probability of a malfunction of equipment important to safety will not be increased. The hydraulic system does not perform a safety related function. It is not vital to the safe shutdown of the station, it is not required for the removal of decay or sensible heat, and it is not necessary for the prevention or mitigation of any postulated accident.

The consequences of a malfunction of equipment important to safety will be increased. The function of the hydraulic system will remain unchanged. It is used only as a convenient way to latch the PAL doors. It is not used to actually open or close the doors since this is done manually. Latching of the doors can also be accomplished manually in a more time consuming manner. However, the hydraulic system will remain as the primary means of latching the doors.

The possibility of an accident of a different type than previously analyzed in the Safety Analysis report be created. No system or component functions will be changed by this reclassification.

The possibility of a malfunction of a different type than any previously evaluated in the Safety Analysis Report be created. No new failure modes or potential hazards will be created by this reclassification.

The margin of safety as defined in the basis for any Technical Specification will not be reduced. This classification will not affect the basis of any of the Technical Specifications (T.S.) including that of T.S. 3/4.6.1.3, "Containment Air Locks." This change will not require a change to the technical specifications.

This change will require a change to the Updated FSAR, Figure 3.8-23.