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AMS-94-005

April 29, 1994

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

SUBJECT: Quad Cities Nuclear Station Units 1 and 2
Changes, Tests, and Experiments Completed
NRC Docket Nos. 50-254 and 50-265

Enclosed please find a listing of those facility and procedure changes, tests, and experiments requiring safety evaluations completed during the months of January, February and March 1994, for Quad-Cities Station Units 1 and 2, DPR-29 and DPR-30. A summary of the safety evaluations are being reported in compliance with 10CFR50.59 and 10CFR50.71(e).

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

Anthony M. Scott
System Engineering Supervisor

AMS/dak

Enclosure

cc: J. Martin, Regional Administrator
T. Taylor, Senior Resident Inspector

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SE-94-001
QCAP 230-15 Rev. 1
Operability Determination for PIF 93-0815

DESCRIPTION:

No change was made to the MSIVs. Disassembly and inspection of two Unit 2 MSIVs (2-230-1A and 1D) identified discrepancies which may affect Unit 1.

There were no concerns identified with the Unit 1 MSIVs. A 50.59 Evaluation was requested during review of the operability evaluation for PIF 93-0815.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Increase in Steam Flow	UFSAR Section 15.1.3
Inadvertent Closure of MSIVs	UFSAR Section 15.2.4
Loss of Normal Feedwater Flow	UFSAR Section 15.2.7
Control Rod Drop Accident	UFSAR Section 15.4.10
Inadvertent Opening of Safety Valve, Relief Valve, or Safety Relief Valve	UFSAR Section 15.6.1
Steam Line Break Outside Containment	UFSAR Section 15.6.4
Loss of Coolant Accidents	UFSAR Section 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because there is no change associated with this safety evaluation. Currently, there is no identified concern with the Unit 1 MSIVs. The Unit 1 MSIVs will perform their design function. However, due to the conditions found on the two Unit 2 MSIVs and a review of maintenance practices, the potential does exist for the Unit 1 MSIVs to be degraded.

Operability evaluation for PIF 93-0815 was complete to document the justification for declaring the MSIVs operable. This safety evaluation is written to document that no unreviewed safety question exists by maintaining the Unit 1 valves as operable. Also, MSIV failures, ie inadvertent closure, is evaluated in the UFSAR. Inadvertent closure is the only accident that may occur due to the present condition of the MSIVs.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

If the ambient temperature at the Unit 1 SBLC tank is sufficiently low to prevent the heat trace from reaching its shut-off setpoint of 102°F, then the heat trace would operate continuously instead of cycling on and off. In the worst case, this condition could exist for the 3 month temporary duration of the revised setpoints. The heat trace is capable of operating continuously for that duration with negligible reduction of life span of the heat trace circuitry.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Changed the title of SCRE to Unit Supervisor, added one additional SRO to the Control Room (one for each unit), and added a few additional responsibilities and duties to this position.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

None.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this procedure does not affect any system or functions. This procedure is an administrative procedure which provides the duties and responsibilities of the Unit Supervisor which replaced the SCRE position. It adds one additional SRO to the Control Room and lightens the work load on the SE. So NO possibility of creating an accident or malfunction of a type different from those evaluated in the UFSAR exist.
3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this procedure change enhances the shift staffing by providing an additional SRO to the Control Room and that these two SROs will each be dedicated to the one unit. This adds one additional person to monitor plant evolutions and increase the margin of safety.

SE-94-004
New Fuel/Fuel Rod Receiving (IP 423)

DESCRIPTION:

The procedure was changed to allow the Fuel Handler to move the Wooden Shipping Container (WSC) to the Refuel Floor using the Reactor Building Overhead Crane. The WSC contains the Metal Shipping Container which contains the new fuel bundles.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

None.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the UFSAR does not describe any accident that is related to this change. The UFSAR only mentions the rated capacity weight of the Refuel Crane. The Wooden Shipping Container and all its materials (the Metal Shipping Container and fuel bundles) weight is less than 3000 pounds. The rated capacity of the Refuel Crane is 250,000 pounds without the hook and 18,000 pounds with the nine ton hook. There is no weight concern. The Wooden Shipping Container and all contents have been evaluated to meet the fire guidelines. The change does not create any accident that is in the UFSAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-005
Temporary Alteration 94-2-8

DESCRIPTION:

Installed a portable electric heater in the Unit 2 Battery Room.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident	UFSAR Section 16.6.2, 15.6.5
Loss of Auxiliary Power	UFSAR Section 8.3.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the portable heater will make no direct contact with any battery in the room and will not be directed at any battery to prevent overheating of any battery cells. The Turbine Building HVAC system and the battery room's exhaust fan are designed to maintain hydrogen levels in the room well below explosive levels. The heater will be chocked or taped to the floor to limit movement during an earthquake. Therefore, the introduction of the portable electric heater in the room will not create any accident for malfunction from battery overheating, explosion or direct contact with the batteries.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Steps were revised and clarified, and additional informations were added to the procedures to enhance the procedure clarity. The intent and the scope of the procedures remain unchanged.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident (LOCA)	UFSAR Section 15.6.2 and UFSAR Section 15.6.5
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the changes to the affected procedures involve only changes that clarify the performance of those procedures. The intent and the scope of the affected surveillance procedures remain unchanged. Therefore, the changes do not adversely impact the HPCI system or any other systems.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Changed QCIS 200-11 & 12, quarterly and monthly calibration and functional test for the Reactor Low Pressure (RHR/LPCI) Permissive Pressure Switches, to incorporate the revised setpoint. Previously the setpoint was 944 psig [900 psig (design specified trip-point) + 27 psig (head correction) + 17 psig (error correction)]. Revised setpoint is 905 psig [880 psig (GE specified trip-point) + 25 psig (head correction)]. GE recommended setpoint provides a ± 20 psi tolerance, which allow for the 17 psi error correction.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident UFSAR Section 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because evaluation of the 900 psig Reactor Low Pressure Permissive pressure switches determined that the existing setpoint was non-conservatively high due to the addition of a "Calculated total error" of ± 17 psig associated with the pressure switch. Discussions with GE and Nuclear Fuel Services (NFS) determined that lowering of the setpoint to trip at a reactor pressure of 880 psig with a tolerance of ± 20 psig is acceptable. This allows a trip range from 860 psig to 900 psig. The lowering of the setpoint is recommended by General Electric to insure that

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the LPCI loop selection logic correctly selects the intact recirc loop. (See attached NED Nuclear Design Information Transmittal (NDIT) CHRON #206773, and GE letter from D.C. Pappone to A. Blamey dated January 18, 1994).

This procedure change will incorporate the recommended setpoint, which will allow the RHR LPCI low reactor pressure permissive to function as intended. The permissive is designed to allow for the coast down of a Reactor Recirc (RR) pump following a LPCI signal and subsequent RR pump trip during single loop operation. Coast down of the RR pump ensures that the pump head pressure does not mask a leak in the operating loop. The new setpoint will ensure that the LPCI loop selection logic correctly selects the intact loop for injection.

By lowering the setpoint there is a subsequent added time delay in the loop select logic (Time to depressurize to the lower setpoint). Evaluation of this added delay for the lowest pressure (860 psig) determined that there is adequate time for the LPCI loop selection logic to perform its function and allow for all required valve re-positioning. See attached GE letter documenting setpoint evaluation.

No new accidents are created by the implementation of this procedure change and new setpoint.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-008
Special Test #1-177

DESCRIPTION:

This Special Test operated the 1A and 1B RWCU pump at the manufacturer's design "best operating point" for the pump impeller (i.e. about 260 gpm) with the RWCU system in a normal recirculation line up and with full test flow directed through both filter demineralizers (i.e. filter demin bypass valve closed) so that pump flow was accurately measured.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the RWCU system is not adversely impacted by this testing. The limiting accident for this system is assumed to remain that of a pipe break outside the isolation valves. The results of this accident are not significantly effected by a small increase in initial system flow. The system normally runs at 240 gpm. The addition of 20 gpm flow will still be bounded by the original GE design of 135 gpm per each pump flow.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-009
Temporary Alteration 94-1-8

DESCRIPTION:

Placed heat trace and insulation on sample line
1/2-57470-5/8"XA for the toxic gas analyzer to prevent the
buildup of ice in the line.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Toxic Gas Release UFSAR SECTION 2.2, 6.4.4.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the heat trace will utilize power from the service building and will not interact electrically with the toxic gas analyzer or any other system in the plant. The trace and insulation does not physically come in contact with the analyzing equipment or the sample stream. The trace and insulation will be attached to passive piping and cannot restrict or prevent any normal functions of the analyzer from occurring. The weight of the trace and insulation will be distributed evenly along an amply supported section of pipe. This makes the weight negligible at any one point on the pipe. The trace temperature will be such that the thermal pipe limits of the pipe and insulation will not be approached. A failure of the trace or insulation will not alter the design function or operation of the analyzer. No new malfunctions of the analyzer can be created by adding the trace and insulation to the passive run of pipe and utilizing non essential service building

SE-94-009 CONTD

power. The only failure could be an obstruction in the sample line due to a failure of the heat and insulation. This is not a new failure.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-010
Work Request Q09976 and Q09977

DESCRIPTION:

The work scope under work requests Q09976 and Q09977 involved taking out all the existing charcoal adsorber trays and clamps and replacing them with new style trays, clamps and doors over the trays. The replacement of the trays was done one train at a time and the train being worked on entered a 7 day Limiting Condition for Operation.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR Section 15.6
Refueling Accident	UFSAR Section 15.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the Standby Gas Treatment System is used to mitigate the consequences of an accident. The system is independent of reactor operations except for start signals and therefore will not create the possibility of an accident different from those evaluated in the UFSAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-011
QCAP 230-15 Rev. 1
Short Duration Time Clocks

DESCRIPTION:

Added PS 0263-52A/B to list and added procedure numbers for functional test and calibration tests to undervoltage and degraded voltage instrument. List was previously incomplete and this corrects that problem.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the procedure being changed administratively tracks the time a T.S. required instrument is inoperable for functional test or calibration. This eliminates the possibility that an instrument could be inadvertently left in a degraded condition, which would impact a system or function. By correcting omissions in the procedure, its ability to perform its intended purpose is enhanced. Due to these factors and the administrative control that is provided by this procedure, this change cannot adversely impact systems or functions so as to create the possibility of an accident or malfunction of a type different from those evaluated.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Special Test 1-178 - Feedwater Flow Nozzle Calibration Test

DESCRIPTION:

Performed Feedwater Flow Nozzle Calibration Test, Special Test 1-178. This test consisted of injecting a non-radioactive tracer into the feedwater system and sampling downstream of the feedwater flow nozzle to determine the tracer concentration. Reactor water conductivity was expected to increase by approximately 0.32 umho/cm. TBCCW was utilized for sample cooling. During injection and sampling, the standby Reactor Feed Pump (RFP) was isolated.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Feedwater

UFSAR Section 15.2.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the tubing run from the RFP suction and discharge headers is designed for feedwater temperatures and pressures. The tubing size is 1/8" and 1/4". The probability of this tubing breaking and causing a malfunction of equipment important to safety is not increased due to the size and design of the tubing. Further, all tubing can be isolated at the Feedwater header.

SE-94-012 CONTD

The response to SESR 4-1799 (attached) indicates that the impact on TBCCW to cool samples will be minimal and not detrimental to any other components or systems. The hose used to tie TBCCW into the sample coolers is rated for TBCCW pressure. Coolers are made of stainless steel designed for significantly higher pressure. TBCCW will be able to be immediately isolated in the event of a leak.

RFP isolated for less than a shift. RFP changeover to be performed in accordance with existing station procedures. Warming valves will be isolated, but this will not prevent nor harm RFP operation. The RFP minimum flow valves will be isolated at various times to prevent tracer solution from leaking into the condenser. An Operator will be assigned to standby throughout the test to open them if needed.

Conductivity projections by GE and station Chemistry project a worst case conductivity increase of approximately 0.32 umho, a rubidium concentration of less than 200 ppb, and nitrate concentrations of less than 140 ppb. Impact of rubidium nitrate on the fuel and piping has been evaluated by GE and NFS (attached) and determined to be non-detrimental as long as rubidium levels remain below 200 ppb. Projected concentration is significantly less than the limit. Conductivity will stay well below the Tech Spec limit and will enter Action Level 1 for only a few hours. Chemistry will monitor reactor water chemistry throughout the test.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Special Test 2-110 Feedwater Flow Nozzle Calibration Test

DESCRIPTION:

Performed Feedwater Flow Nozzle Calibration Test, Special Test 2-110. This test consisted of injecting a non-radioactive tracer into the feedwater system and sampling downstream of the feedwater flow nozzle to determine the tracer concentration. Reactor water conductivity was expected to increase by approximately 0.32 umho/cm. TBCCW will be utilized for sample cooling. During injection and sampling, the standby Reactor Feed Pump (RFP) was isolated.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Feedwater	UFSAR Section 15.2.7
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the tubing run from the RFP suction and discharge headers is designed for feedwater temperatures and pressures. The tubing sizes is 1/8" and 1/4". The probability of this tubing breaking and causing a malfunction of equipment important to safety is not increased due to the size and design of the tubing. Further, all tubing can be isolated at the feedwater header.

SE-94-013 CONTD

The response to SESR 4-1799 (attached) indicates that the impact on TBCCW to cool samples will be minimal and not detrimental to any other components or systems. The hose used to tie TBCCW into the sample coolers is rated for TBCCW pressure. Coolers are made of stainless steel designed for significantly higher pressure. TBCCW will be able to be immediately isolated in the event of a leak.

RFP isolated for less than a shift. RFP changeover to be performed in accordance with existing station procedures. Warming valves will be isolated, but this will not prevent nor harm RFP operation. The RFP minimum flow valves will be isolated at various times to prevent tracer solution from leaking into the condenser. An Operator will be assigned to standby throughout the test to open if needed.

Conductivity projections by GE and station Chemistry project a worst case conductivity increase of approximately 0.32 umho, a rubidium concentration of less than 200 ppb, and nitrate concentrations of less than 140 ppb. Impact of rubidium nitrate on the fuel and piping has been evaluated by GE and NFS (attached) and determined to be non-detrimental as long as rubidium levels remain below 200 ppb. Projected concentration is significantly less than the limit. Conductivity will stay well below the Tech Spec limit and will enter Action Level for only a few hours. Chemistry will monitor reactor water chemistry throughout the test.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided new and revised P&IDs and new CID for the Heater Drain system based on the "as-built" configuration per system walkdown. Vendor equipment, instrumentation and piping has been added to provide greater detail for maintenance and repair activities. System function and operation remains unchanged.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

None.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the heater drain system and its ability to operate is unchanged due to documenting the "as-built" piping configuration on the new and revised P&IDs and new C&ID. UFSAR Section 10 Table of Contents and Section 10.4.7.2 will require minor editorial changes. These changes, per the attached preliminary FSAR submittal review form QTP 200-S6, will not adversely impact systems or functions nor will the possibility or consequences of an accident or malfunction be created that is different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided new P&IDs for the Nuclear Boiler Recirculation Pump Trip ATWS Piping system based on the "as-built" configuration per system walkdown. Piping configuration enhancements and additional components have been incorporated to provide greater detail for maintenance and repair activities. System function and operation remains unchanged.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Anticipated Transients without Scrams UFSAR Section 15.8

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the Nuclear Boiler Recirculation Pump Trip ATWS piping system and its ability to operate is unchanged due to documenting the "as-built" piping configuration on the new P&IDs. UFSAR Section 5.0 Table of Contents, Section 5.1, Table 5.1-2, Section 7.6.2.2 and Section 7.8 will require minor editorial changes. These changes, per the attached preliminary FSAR submittal review form QTP 200-S6, will not adversely impact systems or functions nor will the possibility of an accident malfunction be created that is different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

P04-0-2-044
Control Room Recorder Replacement

DESCRIPTION:

The purpose of the Control Room Chart Recorder Replacement Project was to replace the recorders with standard models to improve maintenance (by improving the availability of spare parts and eliminating obsolete equipment) and to allow simulator fidelity.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA Inside Containment (Bounding)	FSAR Section 14.2.4 UFSAR Section 15.6.5
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the replacement recorders have been evaluated by BWRSD, HFE, and S&L. The proposed replacements have been found to be suitable for the applications. Commercial grade recorders are purchased with all of the applicable features (except for QA paperwork) of Class 1E recorders used at QCNPS. It is anticipated that these new recorders will provide good and reliable service.

The recorder models were selected for use by IMD, OP Dept, and NED (including BWRSD and Human Factors Engineering) for use at QCNPS.

Since the recorders are suitable for the application and of a quality at least as high as the original recorders, it is unlikely that the installation of the recorders could cause an accident of any kind. Testing and Quality Control specified by BWRSD in the approval letter should insure that there are no inadvertent changes that could cause an accident.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Diesel Generator Fuel Oil Piping Replacement

DESCRIPTION:

The EDG fuel oil line has experienced a history of leakage in the vicinity of the engine driven fuel oil pump. Portions of the fuel oil line are rigidly mounted to the auxiliary skid. ISI data has indicated that the engine and the skid are vibrating at different frequencies. This could induce additional stresses on the joints and increase the potential for leaks.

Failures have been attributed to pump nozzle type and excessive vibration. The existing pump nozzles were threaded. Flange connections are stronger and easier to fit-up than threaded connections. This modification replaced the existing pump with a pump having the same characteristics and identical internals except the pump casing has flanged connections rather than threaded.

This modification also partially replaced piping at the pump suction and discharge with flex hoses to isolate the vibration of the skid from the vibration of the engine. This will lower the resulting stresses at the joints. The new pipe configuration is adequately supported to ensure allowable loads are not exceeded.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Failure of DG Start	UFSAR Section 8.3.1.6
LOOP & DBA	UFSAR Section 8.3.1
	UFSAR Section 6.3.3.2
	UFSAR Section 15

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new engine driven pump has the same characteristics and internals as the existing pump. The new pump casing, however, will have flanged nozzles instead of threaded nozzles. Adding flexible hose to the fuel oil piping will isolate vibrations, thus reducing pipe stresses. The operation of the fuel oil system will not change due to implementation of this design. There are no new accidents or equipment malfunctions created as a result of this modification.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-0(1-2)-92-053
Installation of Fuel Oil Cut Off Valve

DESCRIPTION:

Installation of new fuel cut-off valve in each of the Emergency Diesel Generator (EDG) fuel oil day tank supply lines to EDGs. In addition to the cut-off valve, a gate was replaced by a threaded union on Unit 2.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power	UFSAR Section 8.3.1
LOCA	UFSAR Section 15.6.2
	UFSAR Section 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because by providing a reliable cut-off valve for the fuel oil day tank, which will provide an isolation means for preventive maintenance (with procedures in place for its operation) and inspections for installation welding, leak test performed during the monthly surveillance (QCOS 6600-1), this valve should perform as intended and will not create an accident or malfunction of a type different from those evaluated in the UFSAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Safe Shutdown Makeup Pump Room Cooler Piping

DESCRIPTION:

The existing one inch service water (SW) system supply and discharge piping to the Safe Shutdown Makeup Pump (SSMP) room cooler was replaced with two inch piping. The existing supply and discharge piping was cut and capped. The new SSMP room cooler supply and discharge piping was tapped into the abandoned 1/2 Instrument Air Compressor SW supply and discharge lines.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Closure of MSIVs	UFSAR Section 15.8.1
Loss of Normal Feedwater Flow	UFSAR Section 15.8.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the effects of increasing the flow capacity to the SSMP room cooler have been evaluated by the Systems Engineering and found acceptable. No accident or malfunction types different from those currently evaluated in the UFSAR were identified.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-379
Core Spray Support Change

DESCRIPTION:

On Core Spray pipe support M-1810-35, a rigid support piece was added. This does not change any function or operation of this system.

The reason for the change was a discrepancy was found in the Pacific Nuclear design calculation (calc. no. 28.0202.1011-39,R/2) for the support. As a result, the support did not meet FSAR design criteria. This additional lateral reinforcement re-established the FSAR design criteria allowables.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Bounding)

UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this exempt change is adding a rigid support piece to existing Core Spray support M-1810-35. The addition of this rigid support piece does not change the operating parameters of the Core Spray system. If this support did fail it would not render the Core Spray system inoperable. The Core Spray sub-system would still function under a design basis condition, even though the normal FSAR stress limits are exceeded. The addition of this rigid support piece will increase the integrity of the system.

Therefore, this support piece cannot create the possibility of an accident or malfunction different from those evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-305
Main Steamline Vibration Equipment Mounting

DESCRIPTION:

In order to monitor vibrations on the 'B' and 'D' Main Steam lines and the 3B, 3D, and 3E Electromatic Relief Valves (ERV), instrumentation was installed. A total of 24 accelerometers, 8 strain gauges and 2 Linear Variable Displacement Transducers (LVDT) were installed. Three sets of three accelerometers (9 total) were installed at the 3B, 3D, and 3E ERV discharge flanges. Three sets of three accelerometers (9 total) were installed at the 3B, 3D, and 3E ERV discharge piping. Three accelerometers were installed on the 'B' Main Steam line near the 3E ERV. Three accelerometers were installed on the "D" Main Steam line near the 3D ERV. Three sets of two strain gauges were installed on the 3B, 3D, and 3E ERV standpipes. One set of two strain gauges was installed on the B' Main Steam line elbow near the 3E ERV. The accelerometers were installed with mounting brackets which were fabricated for this installation. The accelerometers on the Main Steam lines and on the ERV discharge piping were secured to the steam line using 1/2" carbon steel banding. The accelerometers on the 3B, 3D, and 3E ERV discharge flanges were mounted using one the flange studs. The 8 strain gauges on the ERV standpipes and Main Steam line were spot welded in place. The LVDT's were secured to the snubber supports using 1/2" carbon steel banding. Cabling from the instrumentation was routed to the X-100A penetration. On the outside of the drywell, the cabling was routed to a Data Acquisition System which collects and process the raw data.

The plant has experienced numerous failures of ERV components and Main Steam line snubbers. The root cause of many of these failures is vibration of the Main Steam lines and ERV's. Instrumentation was installed to quantify these vibrations so that solutions can be developed which will reduce or eliminate the vibrations and their effect on plant equipment.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.

- Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Small Break LOCA	UFSAR SECTION	15.6.2
Inadvertent Opening of a Safety Valve, Relief Valve, of Safety Relief Valve	UFSAR SECTION	15.6.1
Inadvertent Closure of Main Steam Isolation Valves	UFSAR SECTION	15.2.4
ATWS - Closure of MSIV's	UFSAR SECTION	15.8.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the installation of the vibration monitoring equipment onto the Main Steam lines and the ERV's will not create the possibility of an accident or malfunction of a type different from those evaluated in the UFSAR. The equipment installation will not adversely affect any system, structure or component. The seismic qualification of the Main Steam lines will not be affected by the weight of the instrumentation and the mounting brackets. The strain gauge installation will not adversely impact the relief valve standpipe, per Sargent and Lundy analysis. The instrumentation and mounting hardware on the ERV discharge flange has also been evaluated by Sargent and Lundy for seismic impact. The seismic qualification of the ERV will not be affected by the addition of the instrumentation and mounting hardware. Also, once installed, the vibration monitoring equipment will not interact in any way with the Main Steam system, ERV's, or any other system or component.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-226
GEMAC Flow Transmitter Replacement

DESCRIPTION:

Recalibrated the new Rosemount Feedwater Flow Transmitters FT-2-644A, B, C using a new 0-467.1 In-H₂O, 10-50 MA, 0-6 Million Lbs/Hr differential pressure (Δp) Span instead of the original 0-469.2 In H₂O, 10-50 MA, 0-6 Million Lbs/Hr Δp span.

An error was found in the original feedwater flow transmitter Δp span calculation. CECO Calculation NEW-0-MSD-11, Rev. 0 was performed to correct this error.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

None

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because there is no change in system function. This Exempt Change ensures feedwater flow is correctly measured and nuclear instrumentation is properly calibrated. The Δp span was recalculated by NED (CECO Calculation NED-0-MSD-11, Rev. 0, Dated 1/13/94) and reviewed by Site Engineering. No new safety concerns are introduced because the Δp span change ensures that feedwater flow measurement is bounded by the generic 1.76% feedwater flow uncertainty.

The Δp span correction represents a -0.225% change in feedwater flow and a corresponding conservative reduction of core thermal power of 0.23%. This results in a full power electrical output loss of 1.93 MWe in comparison to previous output. All other process parameters and system logic are not altered.

The failure mode of the feedwater flow transmitters new Δp span is the same the original Δp span and no new failure modes are introduced. These transmitters are not assumed to perform any specific function in any accident. Any transmitter failure would not prevent any system required previously from performing its design function. Therefore, no accidents are created different from those evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

P04-2-90-083
Installation of Engine Tachometer

DESCRIPTION:

This Minor Plant Change installed a magnetic sensor near the EDG flywheel to detect engine speed. A power supply and 4-digit display was installed in the EDG relay and metering panel. The installation of the EDG tachometer is to allow manual slow starts of the EDG locally from the EDG room. This reduces the "wear and tear" on the EDG caused by fast starts.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Failure of Diesel Generators UFSAR SECTION 8.2.3
to Start

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this instrumentation change adding a local tachometer, does not create any new failure modes. The tachometer has been designed so that its failure will not cause an EDG failure, because of either mechanical or electrical interfaces.

No new system interfaces are created by the installation. Circuit loads have been evaluated by calculations.

The mounting of the magnetic pickup has been seismically qualified where it attaches to the EDG. The conduit and wiring has been routed so that it cannot fall into rotating equipment. The Non Safety Related (NSR) equipment mounted in the EDG panels has been mounted such that its failure would not disable the EDG.

The wiring circuits are NSR with IEEE-384 separation from SR distribution systems. Fuses are sized to preclude an adverse electrical interaction from the NSR electrical components.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the design features of this MPC have allowed the installation of a NSR tachometer on the SR EDG. The design precludes the NSR equipment from adversely affecting SR equipment. Since the reliability of the EDG has not been adversely affected, the margin of safety has not been reduced.

SE-93-36
E04-2-93-006
RHR Torus Cooling MOV Gear Change

DESCRIPTION:

Changed the Overall Gear Ratio on Motor Operated Valves 2-1001-36A and 2-1001-36B. This exempt changes also replaced the motor on MOV 2-1001-36B from 60 ft-lbs to 80 ft-lbs.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident UFSAR SECTION 15.6

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new design maintains the function of the Torus Cooling Dump Valves consistent with the original design. The change affects the amount of thrust that can be produced, such that the actuator will produce enough force to open and close the valves under design basis differential pressure. The amount of thrust produced is less than the structural limit of the weakest component. The stroke times of the actuators will be affected, but the change does not increase the stroke time beyond the IST required stroke time. Since the design function is not affected and the performance parameters remain within the applicable guidelines, the possibility of a malfunction or accident different than those evaluated in the UFSAR is not affected.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-93-37
E04-2-93-005
LPCI Injection MOV Gear Changeout

DESCRIPTION:

Changed the Overall Gear Ratio on Motor Operated Valves 2-1001-29A and 2-1001-29B.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident UFSAR SECTION 15.6

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new design maintains the function of the LPCI injection valves consistent with the original design. The change affects the amount of thrust that can be produced, such that the actuator will produce enough thrust to open and close the valves under design basis conditions. The amount of thrust produced is less than the structural limit of the weakest component. The stroke times of the actuators will be affected, but the changes does not increase the stroke time above the limit of 25 seconds in the UFSAR. Since the design function is not affected and the performance parameters remain within the engineering guidelines, the possibility of a malfunction or accident different than those evaluated in the UFSAR is not affected.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-014
RCIC Flow Rate Special Test (2-11)

DESCRIPTION:

In order to troubleshoot the RCIC system flow problems, a Special Test was performed which monitored various system parameters while the breaker for the 1301-60, RCIC Min Flow valve, was racked out and the valve was manually opened. The breaker for the 1301-60 valve then was racked back in and the valve was closed. Next, the 1301-62, Cooling Water Shutoff valve, was closed. Barometric Condenser temperatures was closely monitored during this time to ensure that the temperature did not exceed 170 degrees F. The 1301-62 valve then was reopened and the 1301-67D valve was opened to check for leakage from the RCIC pump casing drain line. Finally, the RCIC Flow Controller was used to vary system flows and pressures to develop a new pump curve.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Normal Feedwater Flow UFSAR SECTION 15.2.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the performance of this special test will not impact the ability of the RCIC system to perform its intended function and will also not affect the RCIC systems interactions with other plant systems. Therefore, no new accidents or malfunctions will be created from those evaluated in the UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Revision to the Post Accident Containment Venting procedure. Many changes were editorial in nature. Technical changes are:

- the increase in the pressure at which venting through SBGT is permitted.
- the change to the prerequisites that removes flexibility to vent unless a vent sample has been obtained.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Inadvertent Opening of
a Safety Valve UFSAR SECTION 15.6.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the prerequisites have been simplified and corrected to insure that a proper vent sample is taken prior to starting to vent. This will insure that release rates are less than the Tech Spec allowed limits. Requiring that the release rate be within limits prior to initiating venting cannot create the possibility of an accident or malfunction of a type different from those evaluated in the UFSAR.

SE-94-015 CONTD

Changing the acceptable pressure for venting through SBGT to another pressure that is within the acceptable calculated range cannot create the possibility of an accident or malfunction of a type different from those evaluated in the UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This 10CFR50.59 was required by procedure QCAP 230-7 as a result of an operable but degraded plant condition. The 2A and 2B Core Spray Room Coolers were found to have 36 GPM and 42 GPM of flow. The design flow rate is 68 GPM.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA

UFSAR SECTION 6.3/15

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the core spray room coolers have been determined to be operable but degraded. The room coolers have sufficient heat removal capability to adequately cool the core spray rooms and assure the core spray pumps will function as designed to mitigate the consequences of a loss of coolant accident.
3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because an operability determination was performed for PIF 94-0246. It has been determined that in the degraded condition, the core spray room coolers have sufficient heat removal capability to assure continued operation of the core spray pumps and other equipment located in the core spray rooms. Therefore, the margin has not been reduced; and the core spray subsystems will operate as designed.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because a calculation has been performed that verifies that the room coolers, particularly the 2A RHR cooler, will have sufficient heat removal capability in the new flow configuration to assure continued operation of the ECCS room coolers, their subsystems, and other equipment in the equipment rooms.

SE-94-018
Temporary Alteration

DESCRIPTION:

Filter media was placed over the 2A, 2B, and 2C RHRSW pumps and the Unit 2 DGCW pump motor ventilation louvers to prevent foreign material from entering the motor during paint removal and painting activities in the RHRSW vaults. The filter media had screening material on both the motor side and the outside of the media. Duct tape was taped to the motor casing to seal the filter media securely and in a manner as to not block or hamper any flow of ventilation. Additionally, wire cages were taped securely over the pump and motor oilers to provide an extra barrier from accidental damage to the oilers.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR SECTION	15.6.5
LOOP	UFSAR SECTION	8.3.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this change will reduce the probability of accidental damage disabling the RHRSW and DGCW pump while various activities are performed in the area. The cages act as another barrier to prevent potential failures.

The cages, filter media, and screening will only be in place during painting activities in the RHRSW vaults (1 month). The potential that a cage could fall off and damage a

sightglass will be minimized. The added protection during the work activity will improve the overall reliability of the pump during this period.

This change does not affect the operation of the RHRSW and DGCW pumps. If a cage or filter and screening were to fall off, the pump would still be able to function. If the sightglass was damaged the pump could be found to be inoperable. The RHRSW system is designed with redundant pumps and would still be capable of performing all design functions. The DGCW system does not have redundant pumps, however the 1/2 diesel generator would still be capable of performing all design functions.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated schematic diagrams and window engraving drawings associated with the Auxiliary Electrical system to reflect the existing annunciator window engravings.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power	UFSAR SECTION 8.3.1
Power Bus Loss of Voltage	UFSAR SECTION 8.3.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. The annunciator windows do not interact with any plant system or component. The associated alarms will function as designed. The revised drawings reflecting the actual window engravings are easier to interpret.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

NWR Q05245 calibrated the Unit 2 Main Transformer Isolated Phase Bus 2A, 2B, and 2C temperature switches. During this activity, Maintenance noted that the computer points were not shown on Instrument System Wiring Tabulation Index drawing 4E-2851. This DCR was initiated to update drawing 4E-2851 to show the computer points.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power UFSAR SECTION 8.3.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. This DCR revises Instrument System Wiring Tabulation Index drawing 4E-2851 to reflect the computer points used to monitor the temperatures of the Main Transformer Isolated Phase Bus (2A, 2B, and 2C). The improved information will assist plant personnel in performing work activities associated with the Isolated Phase Bus.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

ECN 04-00506M added a free standing post anchored to the 639' - 0" elevation of the Turbine Building next to the Unit 1 Turbine Oil Room Exhaust Fan (EPN 1-5709) duct elbow. The post prevents damage to the duct elbow from push cart collisions. DCR 4-94-010 incorporates the design change onto the applicable design drawings.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by the addition of the protective post. The addition of the free standing, seismically designed post will protect the Turbine Oil Room HVAC duct elbow from damage. The protective post will not interact with any plant system.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Update wiring diagram 4E-1699 to incorporate changes in color codes for cable 16248. This cable is associated with the High Pressure Coolant Injection (HPCI) system. The revised cable color codes on the drawing matches the color codes used in the plant and matches the color codes on associated wiring diagram 4E-1826.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Increase in Reactor Coolant Inventory	UFSAR SECTION 15.5
Decrease in Reactor Coolant Inventory	UFSAR SECTION 15.6

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. The revised cable color codes on wiring diagram 4E-1699 will match the color codes used in the plant and on associated wiring diagram 4E-1826. This will improve maintenance of the HPCI system by correcting conflicting drawing information.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided a revised P&ID for the Condensate Booster system based on the "as-built" configuration as determined by system walkdown. The changes do not affect the function or the operation of the system as documented in S&L evaluation 4-93-242.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Normal
Feedwater Flow

UFSAR SECTION 15.2.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the Condensate Booster system and its ability to operate is unchanged due to documenting the "as-built" piping configuration on the revised P&ID. The drawing changes, as documented in S&L evaluation 4-93-242, will not adversely impact systems or functions nor will the possibility or consequences of an accident or malfunction be created that is different from those previously evaluated in the SAR. Labels and EPNs have been forwarded to the Procedure Coordinator and will correspond to the drawing.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided revised P&IDS and a new CID for the Extraction Steam system based on the "as-built" configuration as documented by system walkdown. The configuration changes documented the piping supplied with the instruments on racks 2252-14A/B, 2252-16A/B and 2252-20. It also changed the configuration for the Extraction Relay Dump Valve pneumatic piping.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Feedwater Heating UFSAR SECTION 15.1.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the Extraction Steam system and its ability to operate is unchanged due to documenting the "As-built" piping configuration on the revised P&IDS and new C&ID. The instrument and pneumatic piping configuration changes conform to the original rack and instrument installation drawings.

UFSAR Section 10.2.2 will require minor editorial changes. These changes, per the attached preliminary FSAR submittal review form QTP 200-S6, will not adversely impact systems or functions nor will the possibility or consequences of an accident or malfunction be created that is different from those previously evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR transferred instrument design information from one controlled source to another. This information originally contained on mylar data sheets was transferred to IDATA data sheets. The station prefers IDATA data sheets over mylar data sheets to control instrument design information.

This DCR also transferred instrument mounting details contained on mylar data sheets to design drawings.

The following systems contain instruments affected by this DCR:

261	No	3700	No
263	Yes	3800	No
1000	No	4400	No
1290	No	5200	Yes
1600	Yes	5700	No
2012	No		

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident (Bounding)	UFSAR SECTION	15.6.2 & 15.6.5
Main Steam Line Break Outside Containment (Bounding)	UFSAR SECTION	15.6.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

DCR 4-93-180 CONTD

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because established procedures are followed to ensure accurate transfer of design information from mylar data sheets to IDATA data sheets and design drawings. As a result, this DCR will not adversely impact any plant system or create any new accident scenarios.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

CMOD M04-2-87-053 was to install a GIX-104 ground detector relay on the main generator neutral. Tests conducted at other stations showed that this relay was incompatible with the General Electric generator and Alterex excitation system used at Quad Cities. As a result, the CMOD was cancelled. The Quad Cities Modification (Mod) Closure program has determined that none of the proposed design changes were installed. The Mod Closure program initiated this DCR to correctly revise the design drawings affected by the cancelled CMOD.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. The Mod Closure program initiated this DCR to correctly revise the design drawings affected by cancelled CMOD M04-2-87-053. The Mod Closure program verified that none of the proposed changes were installed.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Special Test 2-112 Feedwater Flow Nozzle Calibration Test

DESCRIPTION:

Performed Feedwater Flow Nozzle Calibration Test, Special Test 2-112. This test consisted of injecting a non-radioactive tracer into the feedwater system and sampling downstream of the feedwater flow nozzle to determine the tracer concentration. Reactor water conductivity was expected to increase by approximately 0.32 umho/cm. TBCCW was utilized for sample cooling. During injection and sampling, the standby Reactor Feed Pump (RFP) was isolated.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Feedwater UFSAR SECTION 15.2.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the tubing run from the RFP suction and discharge headers is designed for feedwater temperatures and pressures. The tubing size is 1/8" and 1/4". The probability of this tubing breaking and causing a malfunction of equipment important to safety is not increased due to the size and design of the tubing. Further, all tubing can be isolated at the Feedwater header.

The response to SESR 4-1799 (attached) indicates that the impact on TBCCW to cool samples will be minimal and not detrimental to any other components or systems. The hose used to tie TBCCW into the sample coolers is rated for TBCCW pressure. Coolers are made of stainless steel designed for significantly higher pressure. TBCCW will be able to be immediately isolated in the event of a leak.

RFP isolated for less than a shift. RFP changeover to be performed in accordance with existing station procedures. Warming valves will be isolated, but this will not prevent nor harm RFP operation. The RFP minimum flow valves will be isolated at various times to prevent tracer solution from leaking into the condenser. An Operator will be assigned to standby throughout the test to open them if needed.

Conductivity projections by GE and station Chemistry project a worst case conductivity increase of approximately 0.32 umho, a rubidium concentration of less than 200 ppb, and nitrate concentrations of less than 140 ppb. Impact of rubidium nitrate on the fuel and piping has been evaluated by GE and NFS (attached) and determined to be non-detrimental as long as rubidium levels remain below 200 ppb. Projected concentration is significantly less than the limit. Conductivity will stay well below the Tech Spec limit and will enter Action Level I for only a few hours. Chemistry will monitor reactor water chemistry throughout the test.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

CMOD M04-1-87-053 installed a GIX-104 ground detector relay on the main generator neutral. Tests conducted at other stations showed that this relay was incompatible with the General Electric generator and Alterex excitation system used at Quad Cities. As a result, the CMOD was cancelled. The Quad Cities Modification (Mod) Closure program has determined that none of the proposed design changes were implemented. The Mod Closure program initiated this DCR to correctly revise the design drawings affected by the cancelled CMOD.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. The Mod Closure program initiated this DCR to correctly revise design drawings associated with cancelled CMOD M04-1-87-053. The Mod Closure program verified that none of the design changes were implemented.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR updated the schematic and wiring diagrams to reflect changes in Equipment Piece Numbers (EPNs). The revised EPNs match the EPNs used in the plant. The following is a list of the affected equipment.

Motor at Hydrogen Seal Oil Supply Unit
Turbine Bearing Lift Pump Motor
Turbine Bearing Gear Oil Pump
Turbine Bearing Lift Pump A, B, G and J
Main Hydrogen Seal Oil and Recirc. Pump Motor
Hydrogen Seal Oil Vacuum Pump
Turbine Motor Suction Pump
Turbine Oil Tank Vapor Extractor
Turbine Oil Filter Pump
Seal Oil Unit
Lift Pump Motors 1 - 5 for Bearings
Solenoids for Emergency Bearing Oil Pump
Solenoids for Main Shaft Oil Pump
Solenoids for Turning Gear Oil Pump

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Turbine Trip:	UFSAR SECTION 15.2.3
Turbine Generator	
Trip/Load Rejection	UFSAR SECTION 15.8.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. The updated drawings will reflect EPNs used in the plant. Information on the revised EPNs required to update station procedures is being coordinated by the station's drawing "as-built" program. The revised drawings will provide better assistance to operations and maintenance personnel.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Cables 21352A, 21352B and 25026 were replaced under NWR Q97447 and Q97448 as part of a cable replacement program. The old cables were abandoned in-place in the cable tray. New cables were pulled in and connected to the 2C Main Steam Line Drain Valve and the thermostat for the 2A RHR Emergency Air Handling Unit. The new cables have upgraded jackets and insulation compared to the old cables. DCR 4-94-014 was initiated to incorporate this information onto the applicable design drawings.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

MSIV Closure

UFSAR SECTION 15.2.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by the replacement of cables 21352A, 21352B and 25026. Procedural testing and meggering of cables assures continuity of the new cables. The new cables are of the same wire size with upgraded jackets and insulation. The existing cables are abandoned in-place in the cable tray. The applicable tray systems were evaluated for the weight and fire loading from the abandoned cables and are acceptable.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated drawings to show the as-built condition for equipment associated with the Unit 2, 250 VDC battery charger #2. The previous drawings identify breaker ratings, cable numbers, and charger data which was other than what is installed in the plant.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not change any plant structure or system. Changes made to the 250 VDC charger #2 and associated cable and breaker data reflect the "as-built" condition. This DCR does not affect any plant operations or maintenance procedures. Therefore, it does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Relabel manual valves on the P & ID for the Glycol Chillers and Pumps to correspond with the field tag numbers. The valves were mislabelled on the P&ID which show the B lines and valves on the A chiller and pump and the A lines and valves on the B chiller and pump.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the Glycol system and its ability to operate is unchanged due to the relabelling of valves. This change, will not adversely impact systems or functions nor will the possibility or consequences of an accident or malfunction be created that is different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated the schematic diagrams to reflect the as-built condition for equipment associated with well-water pumps #1 and #5. The schematic diagrams incorrectly labelled level switches for the "start" and "stop" circuits. In the "stop" circuit, the high level switch was labelled LS-1/2-4241-12 and is now LSH-1/2-4241-12. In the "start" circuit, the low level switch was labelled LSH-1/2-4241-13 and the low-low level switch was labelled LSH-1/2-4241-14. They are now LSL-1/2-4241-13 and LSL-1/2-4241-14 respectively. The wiring diagram for this equipment is correct. The low and low-low level switches are required for proper operation of the well water pumps.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. This DCR revised schematic diagrams to reflect "as-built" conditions for the level switches on the Well Water Pumps #1 and #5. The settings of the switches and therefore the operations of the pumps are not affected. There are no accidents or scenarios different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated drawings to reflect miscellaneous as-built fuse ratings and identification numbers. Previous revisions of the affected drawings either did not show a rating for a fuse or indicated a rating which did not agree with that of the installed fuse. Evaluations were performed to resolve any fuse discrepancy and the drawings have been revised as necessary to reflect the proper fuse ratings.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not affect any plant structure, system or component. Updated drawings were revised to reflect as-built fuse ratings. This DCR does not affect any plant operation or maintenance procedures. Therefore, it does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

CMOD M04-0-87-004 was initiated to limit the voltage drop on the long cable runs between the fire diesel control panel located in the crib house and the fire diesel control switches in the Main Control Room. The modification proposed adding an interposing relay which would be energized by the control switch. This relay would then energize the remaining relays in the control circuits of each fire diesel. The voltage drop problem was corrected on the 1/2-4101-B diesel fire pump control circuitry by connecting existing spare conductors in parallel to the long cable run. Exempt Change Request ER4-0-93-081 has been initiated to make identical wiring changes to the 1/2-4101-A diesel fire pump control circuitry (run spare conductors in parallel on the long cable run). As a result, the CMOD was cancelled. The Quad Cities Modification (Mod) Closure Program has determined that none of the proposed changes were implemented. The Mod Closure Program initiated a Document Change Request (DCR) to correctly revise the design drawings affected by the cancelled CMOD. The parallel cable runs reduce the voltage drop to an acceptable level. Fire diesel 1/2-4101-A may still experience an undesirable voltage drop until the exempt change is approved and installed.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by cancelled CMOD M04-0-87-004. The Mod Closure Program will initiate a DCR to correctly revise design drawings associated with cancelled CMOD M04-0-87-004. The Mod Closure Program verified that none of the design changes were implemented.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Revised wiring diagrams and schematics to reflect Equipment Piece Numbers (EPNs) for various control solenoids. The solenoids are associated with the ventilation for the Diesel Generator, Units 1, 2 and 1/2. The function of these solenoids remains unchanged.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not change any plant structure, equipment or component. The function of the ventilation systems and their ability to operate are unchanged. This DCR adds EPNs for various solenoids. Therefore, this DCR does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Nuclear Work Request Q05088 replaced the core spray pump discharge flow transmitter FT 1-1464-B with like for like equipment. The previous wiring diagram showed the cable routed to this recorder as going through a junction box and the drain wire as being continuous through a terminal box to the transmitter. The cable is not routed through a junction box and the drain wire in the terminal box on instrument rack 2201-30B is cut and taped. The operation of the transmitter is not affected by the drain wire being non-continuous since the cable is routed from the terminal box to the transmitter in conduit, which effectively shields the cable from external noise. The DCR reflects the as-built configuration of the wiring.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA

UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not affect any plant structure equipment or component. The function of the Core Spray system and its ability to operate are unchanged. This DCR reflects a change in the drain wire to flow transmitter FT-1-1464-B.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR updated the wiring diagrams on the Turbine Control valves to reflect the "as-built" conditions on drawing 4E-1616A. Only one contact on the Mechanical Trip Interlock Switch (MTIS) and the Lockout Valve Interlock Switch (LVIS) and two contacts on the left and right Low Speed Switches (LSS) are wired out to the terminal blocks. On drawing #4E-1623A, there is a splice in two conductors on cable #16017 for Control Valve #2. The splice in the cable does not affect the operation of the system. There are no changes in the function or operation of the turbine.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Turbine Trip	UFSAR SECTION	15.2.2.2.2, 15.2.3.1, 15.2.3.2
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not change any plant structure, equipment or component. The function of the Turbine Generator system and its ability to operate are unchanged. This DCR corrects the wiring on the turbine MTIS, LVIS and LSS switches to indicate that not all of the contacts on these switches are utilized and that there is a splice in cable #16017 on Control Valve #2. Therefore, this DCR does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Ten support drawings for the Containment Atmosphere Monitoring (CAM) System and one support drawing for the Reactor Water Cleanup (RWCU) System were revised to reflect the as-built support configurations. The required drawing changes were mainly dimensional adjustments.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident (for both systems)	UFSAR SECTION 15.6.5
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the revised supports will not create any new accident scenarios because the basic configuration is unchanged and stress levels are within design limits.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated schematic, wiring and key diagrams; cable tabulation and front elevation drawings to reflect additions in Equipment Piece Numbers (EPNs) and labels for equipment associated with the Main Turbine. The new labels on the drawings match the labels used in the plant.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Turbine Trip	UFSAR SECTION	15.2.2.2.2, 15.2.3.1, 15.2.3.2
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. This DCR adds equipment piece numbers to equipment associated with the Main Turbine. The relabelling of the equipment does not affect the function of the Main Turbine.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-227
Changed RHRSW Pump Coupling

DESCRIPTION:

During rebuild of the 2-1001-65C RHRSW low pressure pump (8SF), the casing wear ring showed evidence of induced current passing through the pump/motor shafts through the pump bearings and casing wear rings. Shaft voltages are inherent to all motors and can cause circulating current to travel through the pump/motor shaft. These circulating currents are prevented by the insulated bearing. However, on double-ended motors, an insulated coupling must also be installed on the same side as the insulated bearing. Therefore, this design detailed the modifications necessary to install insulation on the coupling.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (inside containment) UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because only the pump coupling is affected. Process parameters will not be altered. Currently, shaft voltages from the pump motor are creating circulating currents which the insulated coupling will prevent. Since the shaft voltages are inherent of all motors, an insulated coupling will be installed on the same side of as the insulated bearing. System function will not be affected. There are no new accidents or malfunctions created by this design.

E04-2-93-227

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

P04-0-92-042
Control Room Recorder Replacement

DESCRIPTION:

The purpose of the Control Room Chart Recorder Replacement Project was to replace the recorders with standard models to improve maintenance (by improving the availability of spare parts and eliminating obsolete equipment) and to allow simulator fidelity.

The recorders replaced are listed below:

RR 1/2-1740-202
RR 1/2-1740-203

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA Inside Containment	FSAR SECTION	14.2.4
(Bounding)	UFSAR SECTION	15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the replacement recorders have been evaluated by BWRSD, HFE, and S&L. The proposed replacements have been found to be suitable for the applications. Commercial grade recorders are purchased with all of the applicable features (except for QA paperwork) of Class 1E recorders used at QCNPs. It is anticipated that these new recorders will provide good and reliable service.

The recorder models were selected for use by IMD, OP Dept, and NED (including BWRSD and Human Factors Engineering) for use at QCNPS.

Since the recorders are suitable for the application and of a quality at least as high as the original recorders, it is unlikely that the installation of the recorders could cause an accident of any kind. Testing and Quality Control specified by BWRSD in the approval letter should insure that there are no inadvertent changes that could cause an accident.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-020

QCIS 1700-4, Quarterly Main Steam Line (MSL) Log
- Rad Monitor Chassis Cal and Functional Test

DESCRIPTION:

QCIS 1700-4 was revised to include the following: 1) incorporate the Log - Rad Monitor manufacturer's recommended calibration/functional steps, 2) reformat the calibration and functional data sheets to clarify the procedure, and 3) rearrange the calibration and functional steps to add clarification to the procedure without changing the work scope.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Control Rod Drop Accident UFSAR Section 15.4.10

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the procedure revision incorporates changes to improve and clarify the MSL Log - Rad Monitors calibration and functional process. The MSL Log - Rad Monitor set point remains unchanged. The MSL Log - Rad Monitors are worked on one at a time which meets the Tech Specs requirements. There are no changes that could degrade the function of the MSL Log - Rad Monitors and any associated equipment/component. There is no possibility of an accident or malfunction of a type different from those evaluated in the UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-021
Special Test 2-109

DESCRIPTION:

This Special Test changed the type of resin used to precoat the 2A and 2B condensate demineralizer.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Normal Feedwater Flow	UFSAR Section 15.2.7
Chemical & Volume Control System Malfunction	UFSAR Section 15.4.6 (This event is not applicable to Quad Cities Station.)

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the condensate demineralizer resins are not addressed as an item to create the possibility of an accident. Any malfunction of the new resin will be of the same type as the current resins. The condensate demineralizer system is not credited for safe shutdown or any reactor safety function nor can it adversely affect the functions of any system that is credited for safe shutdown and reactor safety.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-024
Temporary Alteration

DESCRIPTION:

The temporary torus recoat exhaust system was tied into the Reactor Building ventilation exhaust system to provide a monitored and elevated release point. The tie-in is located on the 3rd floor near the hatch and fuel pool heat exchanger. The temporary torus exhaust system was located on the 2nd floor near the hatch and RBCCW equipment. Two 18" round flexible ducts were run from the 2nd floor through the hatchway and into the 3rd floor Reactor Building ventilation ductwork.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR Section 15.6
Refueling Accident	UFSAR Section 15.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the temporary torus exhaust system tie-in to the reactor building ventilation system will not interact with any reactor system or system on the refuel bridge to create the possibility of an accident different from those evaluated in the UFSAR. Temporary procedures in Operating Department will address shutdown of the temporary torus exhaust system in the event that the Reactor Building ventilation fans would trip.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Installed temporary lead shielding on the ERV/Target Rock "T-Quenchers" in the Unit 1 Pressure Suppression Chamber (Torus). Loading of the "T-Quencher" were not to exceed 160 lb/ft on the pipe. All blankets were installed when the torus was drained, and will be removed prior to filling the torus.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because Site Engineering has evaluated the ERV/Targetrock "T-Quencher", and has determined that the allowable additional lead shielding load is 160 lb/ft. This application is restricted to when Primary Containment is not required and the torus is drained. Under these conditions, the torus would not be required to mitigate the consequences of an accident. In the unlikely event of a failure as a result of the lead shielding installation, this failure would be contained within the torus. Safety-related equipment outside the torus area would not be significantly affected by this failure. Therefore, the lead shielding installation does not adversely impact systems or functions that would create the possibility of an accident or malfunction of a type different from those in the UFSAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-026
Temporary Alteration 94-2-22, Q13316

DESCRIPTION:

A multiple pen chart recorder was installed at various locations in the 2A Reactor Recirculation (RR) flow control system. The information provided by this installation was used to troubleshoot system degradation and to monitor system performance.

The recorder is designed to have a high input impedance as well as overload protection so as not to affect the component to which it is connected. The high input impedance prevents the recorder from loading the circuit or providing sneak circuits. The fused recorder leads protect both the recorder and the circuit by isolating the two if a short circuit is present.

The recorder was connected to test jacks on individual components where available, or across specific circuit components (resistors, transistors, etc.) where test jacks were not available. All connections were documented under the installation package (Q13316).

The flow control system is a non-safety related function of the RR system. The recorder was not installed in any safety related portion of the RR system. The probability of the recorder malfunctioning and having any impact on the flow control system is very small. However, if such an event were to occur, it could result in a scoop tube lock, a full speed demand transient, or a zero speed demand transient. A scoop tube lock is a design feature and is the desired result of a flow control system failure. A full and zero speed demand transient have been analyzed in the UFSAR. During installation and removal of recorder leads, the potential existed to cause a short circuit across circuit components or terminals; therefore, the scoop tube positioner was locked up during all installation and removal activities.

Affected components: 2A Reactor Recirculation (RR) Flow Control System components mounted in the 902-18 panel, including 2-262-23, -24A, -26A, -28A, -29A, -30A, -36A, -37A.

A duration of 90 days was requested such that a variety of data can be obtained under different load conditions (weekend load drops, load following, etc.).

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

RR Flow Controller Failure	
- Increasing	UFSAR Section 15.4.5
RR Flow Controller Failure	
- Decreasing	UFSAR Section 15.3.2.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the recorder is designed such that it does not affect the circuit it is monitoring and will isolate if a short circuit occurs in either the system or the recorder. This is accomplished with a fused, high impedance recorder inputs. The function and operation of the flow control system will not be affected by the presence of the recorder during normal or transient operation. Should a failure occur as a result of the recorder, the failure mode will be the same as the failure modes that already exist for the system. The existing failure modes, full and zero speed demand transients, are analyzed. Should a transient or accident occur while the recorder is installed, the recorder will not have any effect on the design functions of the recirculation system or any other plant systems. During installation and removal of the recorder leads, the scoop tube positioner will be locked to prevent any transients from occurring. Therefore, the recorder does not introduce new failure modes, does not increase the probability of an accident, and does not affect the consequences of an accident. Recirculation flow control transients are addressed in the UFSAR.

SE-94-26 CONTD

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-94-027
Temporary Alteration 94-1-26

DESCRIPTION:

In support of the Unit One torus recoat project during Q1R13, outside Reactor Building penetrations and Reactor Building piping was used to connect various utilities to the torus coating equipment.

Unit One Connections (Reference Bechtel Drawing FSK-P-034, Rev. 5, Detail 400, 500, and 600. Attachment 1)

The Unit One ILRT Reactor Building penetration was used to route three 10,000# pneumatic hoses and one fiber optic cable into the Reactor Building. The existing ILRT pressurization piping, approximately 7" in from the Reactor Building wall flange, was cut. The section of pipe from the cut to the flange connections for the 1-4199-43 and 1-4199-127 was removed. This section of piping was used only for pressurization during the ILRT and as a flush path for a Fire Protection strainer.

The three hoses were used to supply paint and water for the recoat project. The fiber optic cable was used for transfer of ALARA data related to the recoat project. A service flange was used on the penetration inside the Reactor Building. The service flange had nipples installed and the hoses were connected to these nipples. The fiber optic cable was routed through the service flange and sealed with RTV 133 adhesive sealant. On the outside of the Unit One penetration, 3" of Kawool insulation and 1" of RTV 133 adhesive sealant was used to provide a redundant Secondary Containment isolation. The RTV 133 is acceptable for use in a temperature range from -75 to 400°F. The Secondary Containment penetration seal was inspected by the Secondary Containment System Engineer for adequacy following installation.

(Reference letter dated March 24, 1994, from C.A. Moerke to D. Van Pelt, Subject: Technical Evaluation of Torus Painting Project Temporary Alteration No. 94-1-26, Attachment 2)

Ball valves were installed on the hoses on both sides of the penetration. Check valves were considered for use on the hoses to provide additional redundancy. Based on the consistency of the paint being routed through the hoses, it was not felt that a check valve would function properly for this application. The service flange along with the Kawool insulation and RTV 133 sealant provide sufficient Secondary Containment isolation.

Once installed, there was very little, or no movement of the hoses inside the penetration making it unlikely that a hose rupture would occur. The hoses are rated for 10,000# and are adequately sized to prevent hose failure during painting activities.

The installation of the hoses and cable on Unit One required a momentary breach of Secondary Containment to route the hoses through the penetration and install the service flange. Station procedures QOP 020-1, Opening a Penetration in Secondary Containment, and QMMP 1515-1, Reactor Building Secondary Containment Assurance for Valve Disassembly or Pipe Removal, was used to control Secondary Containment integrity for this evolution.

QOP 020-1 allows for opening a hole in Secondary Containment for a period not to exceed 1-1/2 hours. The 1-1/2 hour time limit was not exceeded as part of this installation. The requirements of QOP 020-1 for SBGTS to be on and the verification that Secondary Containment pressure remains negative throughout the evolution was also met during the Unit One installation.

Unit Two Connections (Reference Bechtel Drawing FSK-P-034, Rev. 5, Detail 100 and 200. Attachment 1)

Compressed air was supplied via the Unit Two Reactor Building Fire Protection penetration. The compressed air was connected to the recoat equipment using a short run of fire protection piping just before the 2-4199-43 valve (approximately 3' of pipe). At this point the pipe was cut and flanges installed along with a section of flex hose and a temporary check valve, which made the final connection into the temporary piping. The piping being modified by this Temp Alt between the Unit Two Reactor Building wall and the 2-4199-43 valve serves no other purpose than to provide a strainer flush path for a strainer located upstream of the 2-4199-43 valve. The modified piping performs no required fire protection function. A temporary check valve inside the reactor building and one on the outside of the reactor building provided redundant automatic secondary containment isolation in the event that the compressor unloads and the manual isolation valves are not closed.

(No basis could be identified which required redundant isolation of Secondary Containment penetrations, however the second check valve was added for additional safety and conservatism. Reference letter dated March 24, 1994, from C.A. Moerke to D. Van Pelt, Subject: Technical Evaluation of Torus Painting Project Temporary Alteration No. 94-1-26, Attachment 2)

Following removal of the temporary valves, the flanges installed will remain in place and the stretch of piping will be hydro tested. The water filled fire protection header was not affected by this temporary alteration. The temporary piping will be field routed through a short flex hose, the temporary check valve and flanged into the Unit Two ILRT pressurization piping. The ILRT pressurization piping is routed to the Unit One side where a "T" fitting was flanged in place. One side of the "T" was routed via temporary hoses to the Unit One ILRT Reactor Building penetration as discussed previously. The third leg of the "T" fitting was routed to the torus for support of recoat activities.

Following completion of the torus recoat work, all piping and penetrations were returned to their normal configuration. The "T" fitting was replaced with a permanent flanged in spool piece.

Seismic qualification of the penetrations have been addressed and this installation has been determined to be acceptable.

(Reference S&L Letter No. Q0744MF dated March 17, 1994, Attachment 3, and S&L Letter No. Q0723MF dated March 7, 1994, Attachment 4)

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Break in Reactor Coolant Pressure Boundary Instrument Line Outside of Containment	UFSAR Section 15.6.2
Design Basis Fuel Handling Accidents Inside Containment and Spent Fuel Storage Building	UFSAR Section 15.7.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the interaction of this temporary alteration with secondary containment will be controlled so that secondary containment integrity is maintained at all times during installation and use of the equipment being installed.

The breach of secondary containment during the installation of the Unit One hoses and service flange will be of a short duration and will be tightly controlled by QMMP 1515-1 and QOP 020-1. This temporary breach is permitted per QOP 020-1 provided that both trains of SBGTS are in operation and that reactor building pressure remains negative at all times during the breach.

Since the fire protection piping and ILRT pressurization piping are not serving any accident mitigation function, and the temporary piping will not be routed over any safety related components, this change will not adversely impact systems or functions so as to create the possibility of an accident or malfunction of a type different from those evaluated in the UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Lifted an electrical lead on each unit that would disable the RHRSW vault limit switches on the submarine doors that cause Control Room Alarm, 901(2)-7 A-8, "RHR Service Water Vault Door Open." This alarm has become a nuisance for the Control Room Operators.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the change does not create the possibility of an accident or malfunction of a type different from those evaluated in the FSAR. The open door alarm performs no safety function. The once per shift check that equipment attendants perform will insure that the doors remain closed. Personnel leaving the area, close the doors. The culture of closing these doors is in place and will insure that the doors get closed. If operators on their rounds were discover the doors open, a Problem Identification Form (PIF) would be written.. An adverse trend of PIF's would indicate a more formal ingress and egress policy for the RHRSW vaults may be needed. Eliminating the nuisance to Control Room operators actually allows for better monitoring of other indications and the allocation of the operator's resources to deal with real problems. Correspondence in 1973 to and from the AEC (attached) confirms that this is an acceptable arrangement.

As discussed with the AEC, during maintenance activities when more than one vault is open, local visual surveillance will be maintained at all times. Therefore, if a problem developed, the doors would be immediately shut.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-93-130
Special Test 2-108

DESCRIPTION:

In collaboration with the Electric Power Research Institute (EPRI), Central Research Institute of Electric Power Industry (CRIEPI) and General Electric (GE), Quad Cities Station has decided to conduct a comprehensive Stress Corrosion Monitoring (SCM) Test on Unit Two.

To support the Quad Cities Unit 2 SCM Test, crack growth and ECP sensors have been installed adjacent to each other at all but one monitored location. The sensors are located in the decontamination flange (suction side) for both recirculation system loops, reactor vessel drain line (via a modified flange) and two Local Power Range Monitoring (LPRM) strings located in positions 40-09 and 48-09. The test will require execution of eleven test sequences at varying hydrogen/oxygen injection rates and reactor power levels, per Special Test #2-108.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

CRDA	UFSAR SECTION	15.4.10
LOCA	UFSAR SECTION	15.6.2, 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the effect on fuel performance, and the modified LPRM strings has been evaluated (see items #13-15, and #19 from Attached Reference List), and concluded that

performance of this test will not increase the probability of an accident. This test will effect recirculation system piping in lower the dissolved oxygen content to establish an ECP level to mitigate IGSCC, thus performance of this test will have no deleterious affects on the recirculation piping (In fact, the addition of hydrogen will reduce the potential of corrosion, and thus reduce the probability of equipment or component (within the reactor boundary) failure or malfunction due to corrosion.) In fact, the addition of hydrogen will reduce the potential of corrosion, and thus reduce the probability of equipment or component (within the reactor boundary) failure or malfunction due to corrosion.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated schematic diagrams to reflect additions/revisions in Equipment Piece Numbers (EPNs) and labels for equipment associated with Main Turbine, HPCI and Off Gas systems, as well as ATWS Recirculation Pump Trip system. The EPNs and labels were revised to reflect the "as-built" condition and match the labels used in the plant.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Loss of Coolant)	UFSAR SECTION	15.6.2, 15.6.5
Inadvertent Actuation of HPCI During Power Operation	UFSAR SECTION	15.5.1
Turbine Trip	UFSAR SECTION	15.2.2.2.2, 15.2.3.1
Recirculation Flow Controller Failure	UFSAR SECTION	15.4.5, 15.3.2.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. This DCR adds/revises EPNs and labels to equipment associated with the Main Turbine, HPCI, Off Gas and ATWS Trip systems. Updated drawings will match plant condition. The relabelling of the equipment does not affect any of the systems mentioned above. Applicable systems are not degraded.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR revised the Master Equipment List (MEL) and selected drawings to incorporate the results of Component Classification (CC) of the Core Spray (CS) System. At part of this DCR, 1) no physical change was made to any plant structure, system equipment or component and 2) some components were upgraded from NSR to SR in order for CS system to perform its SR function (Emergency Core Cooling). Documentation specifically addressing these changes is included in Component Classification Binder #CC-QC006. The CC program is an ongoing controlled program that is supervised by Station Engineering.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident (LOCA) Inside Containment	UFSAR SECTION	15.6.5
Main Steam Line Break (MSLB) Outside Containment	UFSAR SECTION	15.6.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not involve any physical changes to plant systems, structures, equipment or components. The Component Classification (CC) process for the CS system identified the operating mode for each component in the CS system and also identified that component's role in accomplishing the CS system safety

function. The CC process also considered all applicable accidents analyzed in the SAR and all potential equipment or component malfunctions. The CC process provides assurance that the changes made by this DCR do not affect any existing accidents analyzed in the SAR and do not create any new accidents. The CS system CC process is documented in the CS system CC binder.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided revised P&IDs and electrical drawings for various systems based on the "as-built" configuration. The following is a brief description of the change for each drawing.

Drawing M-24 Sht 14 corrected the valve labels for the 1-4799-1253A/B and -1265A/B valves to agree with the field tagging and closed the 1-4799-1253B and -1254B valves for the "B" train of a parallel pressure relief valve station feeding portions of the Standby Gas Treatment system.

Drawings M-25 Sht 1 and M-72 Sht 1 show additional used connections, drain piping configuration changes, show the bypass lines for the oil separator and aftercooler traps and shows the unloading solenoid for the Service Air Compressors.

Drawing 4E-1757A reversed the black and white conductor designations for cable #12999 at panel 901-32 from the 901-50 instrument bus.

Drawings 4E-2308 and 4E-2667D show the increased breaker size (100A) at MCC 26-3, cubicle G-5 for the Isolated Phase Bus blower 2B.

Drawings 4E-2325 and 4E-2608K removed cabling at MCC 28-1A-1 for the disconnected cubicle heaters.

Drawing 4E-2344 added termination point designations for spare contacts 5-5T at device 152-STA for bus 24-1 breaker 152-2423.

Drawings 4E-2365 and 4E-2731 changed wire code designations at MCR panel 902-7 for the Stator Cooling Water Pump.

Drawing 4E-6503L downgraded the SEG code for cable #65319 from C2 to CB for the non-safety related ATWS system recirc pump trip alarm.

Drawing 4E-6503Y downgraded the SEG code for cable #65940 from C1 to CB for the opening of the RCIC suction valve.

Drawing 4E-7224 corrected the circuit designations for the feeds from MCC 20-1 distribution panel to the refrigeration machines and glycol pumps.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Control Rod Drop	UFSAR SECTION	15.4.10
Fire	UFSAR SECTION	5.4.6.2
Turbine Trip w/o Bypass	UFSAR SECTION	15.2.2.2.2, 15.2.3.1
Loss of Normal Feedwater Flow- Zero Flow	UFSAR SECTION	15.2.7
Inadvertent Closure of MSIV	UFSAR SECTION	15.4
Fuel Handling Accident	UFSAR SECTION	15.7.2
Steam Line Break	UFSAR SECTION	15.6.4
LOCA	UFSAR SECTION	15.6.2, 15.6.5
Loss of Offsite Power	UFSAR SECTION	8.3
Instrument Air Failure	UFSAR SECTION	9.3.1.1
ATWS	UFSAR SECTION	15.8
Standby Gas Treatment System Failure	UFSAR SECTION	6.5.1.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the functions of each of the systems and their ability to operate is not affected by these changes. No new equipment failures or failure modes were introduced nor were any existing failure modes affected by these changes. The documentation of the existing condition of the plant for these changes does not adversely impact the systems or their functions and operations. No additional accident scenarios or equipment malfunctions are introduced that are different from those evaluated in the SAR/UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR involved four separate items. The first item documented the reinstallation of jumpers in panels 901-39 and 902-39, between relays 2330-133 and 2330-121, which were inadvertently disconnected when modifications M04-1-91-013B and M04-2-91-013B were implemented.

The second item documents the absence of wiring, that was not needed, from four pressure switches to four junction boxes. These switches are associated with the High Pressure Turbine Steam Chest and are safety-related.

The third item added a serial number reference to instrument number LT-001-0263-58B on the IDATA Sheet; no plant changes were performed.

The fourth item involved the replacement of instrument number LIS-001-0263-145B with a Rosemount 710 DU Trip Unit. The 710 DU Trip Unit Superseded the 510DU and is a improved version of the 510DU.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of FW Due to Single Failure or Loss of Offsite Power	UFSAR SECTION	15.6.1.2
Inadvertent Startup of HPCI	UFSAR SECTION	15.5.1
Simultaneous Loss of AC Power and a MS Line Break	UFSAR SECTION	15.6-17
Circumferential Recirculation Line Break	UFSAR SECTION	15.6-21
Closure of MSIVs	UFSAR SECTION	15.8.1.3.1
Loss of Normal & Auxiliary AC	UFSAR SECTION	15.8.2.3
Loss of Normal FW Flow	UFSAR SECTION	15.8.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not create the possibility of an accident or malfunction of a type different than those evaluated in the SAR because no new design changes will be implemented.

Item 1 The auto-start function of the HPCI Emergency Oil Pump and the auto-stop function of the HPCI Turning Gear are original design features which were inadvertently disconnected when modifications M04-1-91-013B and M04-2-91-013B were implemented.

Item 2 The High Pressure Turbine Steam Chest pressure switches have not been changed functionally. The only revision will be to the wiring diagram to reflect which contacts were used. There are no changes to the associated system.

Item 3 The documentation change made to the IDATA sheet regrading instrument number LT-001-0263-58B has no impact on the Reactor Narrow Range differential transmitter and its associated system.

Item 4 The upgrade of instrument LIS-001-0263-145B will perform the same function as the model it is replacing. Therefore, there is no impact on the Reactor Narrow Range trip unit or its associated system and components.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated schematic and wiring diagrams to reflect the as-built condition for equipment associated with 4160 volt Bus 24-1, Standby Diesel 2 feed. On Bus 24-1 cubicle 1, auxiliary contacts 1 & 1T and 2 & 2T are shown incorrectly on the drawings. Contact 2 & 2T is actually the spare and 1 & 1T is used for the Core Spray auto-start logic.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power	UFSAR SECTION	8.3.1
Power Bus Loss of Voltage	UFSAR SECTION	8.3.1
Loss of Coolant	UFSAR SECTION	15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not affect any plant structure, system or component. Updated drawings were revised to reflect the as-built configuration of the auxiliary contact used as an interlock to the Core Spray Power Monitor System. This DCR does not affect any plant operation or maintenance procedures. Therefore, it does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated drawings to reflect miscellaneous as-built fuse ratings and identification numbers associated with HPCI and Condensate systems. Previous revisions of the affected drawings either did not show a rating for a fuse or indicated a rating which did not agree with that of the installed fuse.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant (LOCA)	UFSAR SECTION	15.6.2, 15.6.5
Inadvertent Actuation of HPCI During Power Operation	UFSAR SECTION	15.5.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not affect any plant structure, system or component. Drawings were revised to reflect "as-built" fuse ratings. The actual installed fuses are acceptable per CECO Document SL-4561. The changes do not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated key and wiring diagrams as well as cable tabulation drawing, to reflect "as-built" conditions on the 48/24 VDC distribution panels 1A and 1B.

On the drawings, at 48/24 VDC Bus 1A, circuit 6 and 8 was revised to show a two pole circuit breaker that feeds "Chimney Monitors 1 & 2 Panel 912-4." At Bus 1B, circuit 6 and 8 is a two pole circuit breaker and was relabelled as "Unused Feed to Panel 912-4." This circuit formerly fed the "Radwaste Effluent Radiation Monitor Panel 912-4." This equipment is no longer in service. However the cable from the 48/24 VDC bus to Panel 912-4 (#18189) is still in place but is determianted on the internal side of Panel 912-4.

On both buses, circuit 10 was shown as a feed to "Feedwater Control System Valve Control Circuit Panel 912-4." This equipment is actually fed by a 120 VAC Essential Service Distribution Panel (Panel 910-49, circuit 11). Both of these circuits were relabelled as "Spare" on the 48/24 VDC Distribution Center Key Diagram (Drawing 4E-1319).

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power	UFSAR SECTION	8.3.1
Power Bus Loss of Voltage	UFSAR SECTION	8.3.1
Chimney Release Rate	UFSAR SECTION	15.7.2.5.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this DCR does not affect any plant structure, system or component. The drawings were revised to reflect "as-built" conditions on 48/24 VDC distribution panels 1A and 1B. This DCR does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Updated schematic and key diagrams to reflect changes on drawings to match the "as-built" condition for equipment associated with essential service 480 VAC MCC Bus 29-3 and Feedwater Control systems. On key diagram (4E-2310) cubicle E3, Bus 29-3, starter size 1 was shown unassigned but in reality is loaded with Turbine turning gear piggy-back motor. This load is also shown on wiring and schematic diagrams. On schematic diagram 4E-2418, associated with the Feedwater Control systems valve control, normally closed contact 3-4 for relay 601-104 was shown as a spare, but on the feedwater control, steam flow and Reactor level schematic diagram (4E-2819) this contact is used for interlock manual-auto transfer station 640-19A. Drawing 4E-2819 matches the "as-built" condition. Drawing 4E-2418 was updated to reflect the "as-built" conditions.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Auxiliary Power	UFSAR SECTION	8.3.1
Loss of Normal Feedwater Flow	UFSAR SECTION	15.2.7
Increase In Feedwater Flow	UFSAR SECTION	15.1.2
Turbine Trip	UFSAR SECTION	15.2.2.2.2 15.2.3.1, 15.2.3.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by this DCR. This DCR revises key and schematic diagrams associated with the Auxiliary Power systems and the Reactor Feedwater Control systems. These changes do not affect the function of the Auxiliary Power systems or Reactor Feedwater Control systems. Therefore, it does not create the possibility of an accident or malfunction different from those previously evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

HPCI turbine oil cooler outlet temperature indicator switch (TIS 1-2341-2B) was found to be abnormally slow to react during calibration. NWR Q07984 replaced this TIS with an equivalent, but not identical, TIS. DCR 4-93-305 incorporated the change onto the appropriate instrument data sheet.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR SECTION	15.6.5
Inadvertent Actuation of HPCI During Power Operation	UFSAR SECTION	15.5.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident scenarios are created by the replacement of the HPCI turbine oil cooler outlet TIS. This TIS has no control function. The HPCI system is not degraded by the new TIS. The performance of the new TIS is identical to the original.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Replacement of the Unit 1 Emergency Diesel Generator

DESCRIPTION:

The EDG fuel oil line has experienced a history of leakage in the vicinity of the engine driven fuel oil pump. Portions of the fuel oil line are rigidly mounted to the auxiliary skid. ISI data has indicated that the engine and the skid are vibrating at different frequencies. This could induce additional stresses on the joints and increase the potential for leaks.

Failures have been attributed to pump nozzle type and excessive vibration. The pump nozzles were threaded. Flange connections are stronger and easier to fit-up than threaded connections. This modification replaced the existing pump with a pump having the same characteristics and identical internals except the pump casing has flanged connections rather than threaded.

This modification also partially replaced piping at the pump suction and discharge with flex hoses to isolate the vibration of the skid from the vibration of the engine. This will lower the resulting stresses at the joints. The new pipe configuration was adequately supported to ensure allowable loads are not exceeded.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Failure of DG start	UFSAR SECTION	8.3.1.6
Loop & DBA	UFSAR SECTION	8.3.1; 6.3.3.2; & 15

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new engine driven pump has the same characteristics and internals as the existing pump. The new pump casing, however, will have flanged nozzles instead of threaded nozzles. Adding flexible hose to the fuel oil piping will isolate vibrations, thus reducing pipe stresses. The operation of the fuel oil system will not change due to implementation of this design. There are no new accidents or equipment malfunctions created as a result of this modification.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This Minor Plant Change provides the ability to throttle the RHRS Heat Exchanger Bypass Valves 1001-16A & B and to cycle the valves fully open or fully closed without manually holding the handswitch in the "OPEN" or "CLOSE" position. The design consisted of rewiring the control circuit and replacing the control switches for the valves with new switches having Open, Close, Pull-to-Stop, and spring return to AUTO (from open or closed position) positions. When the new switch is placed in the Open or Closed position and then released, a seal-in contact will close and continue to energize the control relay causing the valve to run full open or full closed. When the new switch is placed in the Pull-to-Stop position the power to the control relay is dropped out, which stops the valve in a throttled position. The Minor Plant Change improved on the original control circuit by allowing operating personnel to have the flexibility to operate the valves without manually holding the handswitch during both normal and emergency situations.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	FSAR	14.2.4
	UFSAR	15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the minor plant change does not contain any system interfaces or new failure modes, which have not been previously evaluated. The RHR 1001-16A & B valves are not used as isolation valves and therefore will not affect the RHR pumps. The changes to the electrical controls for the RHRS Bypass valves will not change the function or interaction of the valves with the rest of the RHR System or other Systems. Therefore, the Minor Plant Change will not create or increase the probability of failure for any other systems or equipment. The Minor Plant Change will be designed, installed, and tested to insure that the Class 1E component (SMB control switch) will perform as intended. The new design will improve on the original control circuit and will allow greater operator flexibility during both a normal and emergency situations.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the minor plant change will simply replace the existing 1001-16A & 16B control switches with new control switches having a Pull-to-Stop position and rewire the control logic for the valves. There are no Technical Specification revisions associated with this minor plant change. The margin of safety for the applicable Technical Specifications has been reviewed and is not affected. The reliability and efficiency of the RHR system has not been significantly affected. The RHR system will be inoperable during the installation of this minor plant change, which will be installed during a Unit outage. A RHR loop is permitted to be inoperable while the Unit is in cold shutdown and the system is not needed to provide shutdown cooling (see Technical Specification 3.5.F.2). The 1001-16A & 16B valves should be returned to operability as soon as possible.

DESCRIPTION:

Provided a revised P & ID to document the "as-built" condition of the Unit 2 Instrument Air System. Valve 2-4799-176 shall be locked closed instead of being normally closed. Valve 2-4799-182 is a ball valve instead of a glove valve. There is a piping design table (PDT) break at the insulating flange in line 2-47138-1/2"-T.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Instrument Air Failure	UFSAR SECTION	9.3.1.1
LOCA	UFSAR SECTION	15.6.5
Inadvertent Closure of MSIVs	UFSAR SECTION	15.2.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the described changes do not alter the system configuration or affect the function of the system. Thus, no additional accidents or failure modes are created and the system will operate as originally designed.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR documents as-built conditions pertaining to the Post LOCA Monitoring System.

The electrical feed to the Post LOCA H2 & O2 Monitoring Sample Pump Motor 1A utilized cubicle H4 instead of H3 at MCC 18-1A. All associated electrical drawings were revised to reflect this change. This change does not affect the operation of the sample pump or motor. The circuit breaker is still rated at 15 amps, the only difference is the cubicle compartment used. Cubicle H3 was labelled as available space for future use as was cubicle H4 before incorporation of this DCR. Also to be documented is the twelve inch space below cubicle H4 and above cubicle H5. The twelve inches is minimally enough space to assign the next sequential number H5 to it, thus changing the existing H5 cubicle to H6.

A couple of non-technical drafting errors were found on a Post LOCA Monitoring schematic. The switch development for relay CR1 incorrectly shows the contact between points 5 and 6 as an open contact. Upon review of the wiring diagram for this relay, verification was made that the contact between points 5 and 6 is actually a closed contact. Further review also showed that this contact is spare thus not affecting any electrical circuits or plant operations. The switch development for relay CR1 was updated to correct this error.

Also, on the same schematic diagram the switch development for relay CR5 was incorrect. The contact for a H2 & O2 low pressure indicating light is a normally closed contact as reflected in the schematic portion of the same drawing. The switch development showed an open contact which is incorrect. This change eliminates any confusion as to how the low pressure indicating light functions. Upon H2 & O2 pump pressure decrease, relay CR5 will de-energize the subject indicating light as well as all other indicating lights in panel 2251-81A. Relay CR5 also interlocks with relay CR2 which will annunciate a system failure.

A RHR pipe support was also included in this DCR. The rigid strut assembly bracket was installed 90 degrees from where it was shown on the mechanical hanger drawing. The support has not been degraded and still provides the structural integrity originally designed with the bracket at a 90 degree rotation.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR SECTION	15.6.5.2
Radioactive Release from a Subsystem or Component	UFSAR SECTION	15.7

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function and operation of the Post LOCA Monitoring System and RHR System remain unchanged. The changes made by this DCR involve updating the key, schematic and wiring diagrams to reflect the use of cubicle H4 instead of H3 at MCC 18-1A and to show the reconfiguration of a pipe support on the RHR System. This change does not create the possibility of the sample pump or RHR System malfunctioning or of causing an accident different than those evaluated in the SAR. All other changes were of non-technical nature.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

NWR Q06635 replaced the 1B Turbine Building Closed Cooling Water (TBCCW) pump discharge pressure indicator (PI-001-3841-1B). The previous indicator could not be properly calibrated.

NWR Q07689 replaced the pressure switch (PS-1/2-7641-55) that controls the Fire Protection Carbon Dioxide (CARDOX) storage tank pressure. The previous switch was found to be out-of-tolerance.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the replacement components will function as required by the original design of the systems. Thus, no new failure modes are created and the probability of accidents or malfunctions are as evaluated in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

LYCO Inc. was contracted to install a new Sewage Treatment Plant (STP). The Modification Program was not used for this installation because it is an off-site facility. As-built No. 89027 was generated to document the installation. However, during incorporation of DCR 4-89-027 it was determined that there were too many problems with the installation. Purestream Inc. was then contracted to correct the problems and get the STP operational. As a result, various items pertaining to DCR 4-89-027 were released on "HOLD" due to discrepancies in design information. An as-built DCR was not turned in at the completion of the Purestream installation. The Quad Cities Modification (MOD) Closure Program has performed an as-built walkdown to document the as installed condition of the STP. The MOD Closure Program has marked up the affected design documents and has initiated this Document Change Request (DCR) to correctly revise the design documents.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new accident or malfunction scenarios are created by this as-built DCR. The Sewage Treatment and Spray Canal system are not currently evaluated in any accident scenarios and the power feed to the STP does not interact with any plant systems.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR documented the following as-built conditions:

This as-built renumbered the identification of wires and annunciation contacts for the acoustic monitoring system as they pertain to the Main Steam valves listed below. These revisions do not introduce any physical or functional changes. The subject wire numbers and alarm contacts are located inside panels 901-21 and 902-21.

Unit	Valve	Description
1	4A	Main Steam Safety Relief
1	4B	Main Steam Safety Relief
1	4C	Main Steam Safety Relief
1	4D	Main Steam Safety Relief
1	4E	Main Steam Safety Relief
1	4F	Main Steam Safety Relief
1	4H	Main Steam Safety Relief
2	3A	Main Steam "Target Rock" Safety/Relief Valve
2	3B	Main Steam Electromatic Relief Valve
2	3D	Main Steam Electromatic Relief Valve
2	3D	Main Steam Electromatic Relief Valve
2	4A	Main Steam Safety Relief Valve
2	4B	Main Steam Safety Relief Valve
2	4C	Main Steam Safety Relief Valve
2	4D	Main Steam Safety Relief Valve
2	4E	Main Steam Safety Relief Valve
2	4F	Main Steam Safety Relief Valve
2	4G	Main Steam Safety Relief Valve
2	4H	Main Steam Safety Relief Valve

A wiring diagram was updated to reflect spare contacts at Turbine Stop Valve number 3. The valve is equipped with (3) open and (3) closed contacts which are shown prewired to internal terminal blocks on the wiring diagram. Incoming cables terminate at these terminal blocks utilizing (1) closed and (2) open contacts. The remaining contacts are not used, and the walkdown verified that they were not prewired to the internal terminal blocks. The as-built reflects the removal of the internal wiring from the contacts to the terminal blocks.

A wiring diagram was updated to correct two typographical errors. A switch development of a Reactor Scram Reset relay incorrectly showed the relay identification number as 490-111A instead of 590-114A. Also, the switch development for relay 590-114C incorrectly referenced drawing 4E-2466 instead of 4E-2465 as an associated applicable schematic.

Structural drawings were updated to show new live loads on the turbine floor.

Mechanical drawings were updated to show specific valves' normal operating position or locked open/closed for the Condensate Demin, Condensate, Fire Protection, Hydrogen, Carbon Dioxide, Fuel Pool Cooling, Off-Gas, Radwaste, Service Water and Make-Up Demin Systems.

Mechanical drawings were updated to show correct labelling of equipment for the Off-Gas and Turbine Building Floor Drain Systems.

Mechanical drawings were updated to show calibration points for pressure test connections off the Service Water System.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Inadvertent Closure of MSIV	UFSAR SECTION	15.2.4
Loss of Normal Feedwater Flow	UFSAR SECTION	15.2.7
Decrease in Reactor Coolant System Flow Rate	UFSAR SECTION	15.3
Decrease in Reactor Coolant Inventory	UFSAR SECTION	15.6
Turbine Trip	UFSAR SECTION	15.2
Loss of Condenser Vacuum	UFSAR SECTION	15.2.5
Reactivity and Power Distribution Anomalies	UFSAR SECTION	15.4
Loss of Electrical Load	UFSAR SECTION	15.2.2.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the changes to the electrical drawings will update identification of wires, non-use of contacts and correct minor drafting errors. Those changes will not alter any electrical components, systems or functions. Therefore, no new accidents or transients other than those previously evaluated are created.

The changes in valve positions and locking valves in position will provide a parallel system train, prevent inadvertent valve position changes and isolate piping to eliminate failure paths. This DCR also corrects labels to agree with field tagging and documents calibration points for normally isolated test equipment. None of these changes alters the operation or function of the systems, thus no new accidents, transients or malfunctions are created.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Replaced 3 way solenoid valve in the condensate demin control panel with a two way manual ball valve.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this change has no impact which will create a malfunction of any type different than previously evaluated in the UFSAR. This change provides greater system reliability because the potential for a solenoid failure to cause all condensate demin flow control valves to close has been eliminated.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-206
SBLC Heat Trace

DESCRIPTION:

The SBLC Heat Trace System was not reliable and had high maintenance. This system was replaced with a dual loop self leveling heat trace. The set point of the system was changed from 78 F to 83 F. This change is conservative and allows for the main tank concentration to be increased to 16%. The insulation on the piping was also being upgraded to a glass type with double the R rating of the previous fiber type. All these changes make the SBLC System more reliable and results in less maintenance.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

ATWS

UFSAR SECTION 15.8

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the operation and function of the new heat trace is the same as the existing heat trace. No new failure modes are being introduced by this modification.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Replace HPCI and RCIC Steamline Drain Level Switches

DESCRIPTION:

This Exempt Change replaced the electrical switches in 2 Magnetrol level switches. The replaced switches are in LS-001-1360-13 in the RCIC System and LS-001-2365 in the HPCI subsystem of ECCS.

The switches are supplied by General Electric as described in SIL No. 5341. The SIL was issued to address problems that several utilities had experienced with poor switch performance due to elevated temperatures. The replaced switches were rated for 400 degree F and the new switches are rated to 575 degree F.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Loss of Coolant Accident) UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the loss of HPCI and/or RCIC is a previously analyzed condition. Reference the applicable Technical Specification LCO for both systems being inoperable. HPCI is backed up by APR and low pressure ECCS. RCIC is backed up by HPCI for its core cooling function and Safe Shutdown in the event of a fire. These backup systems are not affected by the modification.

Since the backup systems for the modified systems are not affected, it is unlikely that an accident more severe than analyzed has been created.

The changes are entirely inside existing system components, therefore no new system interactions have been created. The failure modes associated with this change are a pressure boundary leak and a failure of the switch to function and allow high water level in the steam lines to go undetected. The calculations performed by Bechtel show the first failure is extremely unlikely and the improvements made in the switch upgrade make the latter failure less likely following installation.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided revised P&IDs for the Diesel Fuel Oil system based on the "as-built" configuration as determined by system walkdown. The piping configuration changes are for the Diesel Fire Pump Day Tank connections, the Associated Day Tank instrumentation, documenting additional vent and drain valves, the Fire Pump Diesel Engine connections and adding a safety boundary flag at valves 1(2)-5299-2.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Diesel Generator Failure UFSAR SECTION 8.3.1.6.4

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the piping configuration changes for the Diesel Fire Pump Day Tank, the Day Tank instrumentation and the Fire Pump Diesel Engine will not affect the function or operation of the systems since these changes were addressed as part of the original system design. Closing the 1(2)-5299-2 valves and disconnecting the automatic initiation of the transfer pump from the Fire Pump Day Tank low level switch will provide the required safety boundary isolation between the systems, but it will not adversely impact the operation or function of the transfer system. No new failure modes are introduced since leakage past the valve would be as analyzed per a line break and lack of fuel oil in the Diesel Generator Day Tank. An automatic fill of the

Fire Pump Day Tanks is being addressed per Modification Request MR4-1(2)-94-004.

UFSAR Section 9.5.4 and the Section 9 Table of Contents will require minor editorial revisions to include the Fire Pump Diesel Engine Fuel piping. These changes, per the attached preliminary FSAR submittal review form QTP 200-S6, will not adversely impact systems or their operation and function as previously evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided revised P&IDs for the High Pressure Coolant Injection (HPCI) Piping system based on the "as-built" configuration as determined by system walkdown. The changes document the existence of a level glass on the HPCI gland seal condenser per original design of the system, but not previously shown on the P&IDs versus documentation of unanalyzed changes to the HPCI system.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Inadvertent Opening of Safety Valves	UFSAR SECTION 15.6.1
Inadvertent Initiation of HPCI	UFSAR SECTION 15.5.1
LOCA	UFSAR SECTION 15.6.5
Steam Line Break Outside Containment	UFSAR SECTION 15.6.4
ATWS	UFSAR SECTION 15.8

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the piping configuration changes for the HPCI Piping will not affect the function or operation of the system since these changes were addressed as part of the original system design.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Provided new and revised P&IDs for the Recirculation Pump Motor Generator (MG) Set Oil Piping system based on the "as-built" configuration as determined by system walkdown. The piping configuration changes are for the MG Set bearing oil supply and return piping, the MG Set oil pump piping, the switch panel assembly and instrument piping, the Oil Mist Eliminator piping, the thermocouple assembly for the Journal bearings, the circuit oil temperature piping, the lube oil circuit piping, the bedplate drains and the fill and vent lines for the oil coolers. The configuration changes are primarily due to presentation of original design information to previously shown on the P&ID versus documentation of unanalyzed changes to the MG sets.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Recirc Pump Trips	UFSAR SECTION	15.3.1
Recirc Flow Controller Failure	UFSAR SECTION	15.3.2, 15.4.5
Recirc Pump Shaft Seizure	UFSAR SECTION	15.3.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the piping configuration changes for the Mg Set Oil Piping will not affect the function or operation of the system since these changes were addressed as part of the original system design.

UFSAR Section 5.0 Table of Contents, Section 5/1 Table 5.1-2 and Section 5.4.1.2.2 will require minor editorial revisions. These changes, per the attached preliminary FSAR submittal review form QTP 200-S6, will not adversely impact systems or their operation and function as previously evaluated in the SAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

SE-93-113
E04-1-93-077
Replace 1-1901-10 Valve &
Reroute Drain Piping for Source Term Reduction

DESCRIPTION:

Replaced the fuel pool cooling 1901-10 globe valve with a ball valve. Ball valve is orientated in the upright position.

Changed some of the vertical and horizontal piping to sloped piping that provides better flow and prevents material clogging in the piping.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the replacement components will perform the same intended function and operation as the original components. There is not change in the intended function or operation of the structure or system. No new failures will be introduced by the change. Therefore, the change will not create an accident or malfunction different from those evaluated in the UFSAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-232

Replace HPCI Pressure Switches with New Model

DESCRIPTION:

This Exempt Change replaced Square D 9013 Series Pressure Switches with Series 9012 Pressure Switches. The original model of pressure switch is no longer supplied by the manufacturer.

The following switches are replaced: PS-002-2341-1, PS-002-2341-2, PS-002-2341-3, PS-002-2341-4, PS-002-2341-5, PS-002-2341-6, PS-002-2341-7, PS-002-2341-8, PS-002-2341-10, PS-002-2341-11, PS-002-2341-12, PS-002-2341-16, and PS-002-2341-20.

The previous tubing inside the pressure switch panel near the HPCI turbine was 3/8" stainless steel tubing with a number of brass fittings and shutoff valves (for the purpose of isolating switches for calibration). The tubing, fittings, and valves were replaced inside the panel with 1/4" stainless steel tubing, fittings, and valves.

The new pressure switches are set to the same trip values as the old switches. NED-I-EIC-0025, Rev. 1 provides the necessary calibration tolerances.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Loss of Coolant Accident) UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the loss of HPCI is a previously analyzed condition. Since the Exempt Change has only affected the HPCI system, it is unlikely that any other, not analyzed accident, could be caused. The backup system for HPCI, APR and low pressure ECCS, is not modified by this Exempt Change.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-233
Replace Electrical Switch in HPCI
Level Switch LS-002-2365 &
RCIC Level Switch LS-002-1360-13

DESCRIPTION:

This Exempt Change replaced the electrical switches in 2 Magnetrol level switches. The replaced switches are in LS-002-1360-13 in the RCIC system and LS-002-2365 in the HPCI subsystem of ECCS.

The switches are supplied by General Electric as described in SIL No. 531. The SIL was issued to address problems that several utilities had experienced with poor switch performance due to elevated temperatures. The replaced switches were rated for 400 deg F and the new switches are rated for 575 deg F.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Loss of Coolant Accident) UFSAR SECTION 15.6.5

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the loss of HPCI and/or RCIC is a previously analyzed condition. Reference the applicable Technical Specification LCO for both systems being inoperable. HPCI is backed up by APR and low pressure ECCS. RCIC is backed up by HPCI for its core cooling function and Safe Shutdown in the event of a fire. These backup systems are not affected by the modification.

Since the backup systems for the modified systems are not affected, it is unlikely that an accident more severe than analyzed has been created.

The changes are entirely inside existing system components, therefore no new system interactions have been created. The failure modes associated with this change are a pressure boundary leak and a failure of the switch to function and allow high water level in the steam lines to go undetected. The calculations performed by Bechtel show the first failure is extremely unlikely and the improvements made in the switch upgrade make the latter failure less likely following installation.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-1-93-141
Interlock Door Actuator Change

DESCRIPTION:

This change upgraded the U1 interlock door actuators from 2000 to 2500 series. These actuators were mount in the existing bracket. This change also added time delay relays to the door jamb magnets.

The reason for the change is due to the problems with the doors hanging open and two doors being open at the same time. The previous 2000 series is power open and spring close. The differential pressure between the Reactor and Turbine Building would overcome the spring close function of the actuator and results in the door hanging open approximately 2-3 inches from the jamb. The addition of the power close feature provides an extra 5-10 ft/lbs of force to close the door. This will overcome Dp forces on the door.

If the push button was quickly pushed and released the motor would not pull the door off the jamb before the magnets reenergize. This resulted in the motor grinding against the magnets until the motor relay time delay expired. The magnets on the door jamb were controlled by an interlock relay that deenergized when the door limit switch sensed the door closed and reenergized the magnets. This change added a time delay relay to control the magnets. This relay energizes when the pushbutton is depressed. This releases the magnets at the same time the motor starts, and holds the magnets deenergized for a few seconds. The magnets reenergize while the door is open. As the door closes the magnets grab the door and hold it closed. These two changes eliminate the door hanging open and increase the service life of the actuator.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR SECTION	15.6.5
Instrument Line Break	UFSAR SECTION	15.6.2
Outside Primary Containment		
Refueling Accident	UFSAR SECTION	15.7.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because upgrading the actuator does not interface with any other systems. This change will make the door more reliable and will not create any new malfunctions or accidents not described in the SAR.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-0-93-051
West Trackway Door

DESCRIPTION:

The Laundry, Tool, and Dry-Active Waste building is a multi-use facility directly attached to the Turbine Building through a walkway. To better facilitate traffic to and from the LTD building, a double door replaced the existing door. This Engineering Change Notice provided the electrical tie-in's necessary for station security to adequately monitor the new door configuration.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA (Bounding)	UFSAR SECTION 15.6.5 Station Security Plan
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For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because there are no new failure modes. The tie-in is installed Regulatory Related. The door is similar to double doors installed throughout the plant. Bechtel has reviewed the addition of the port required for the double door configuration. This addition poses no new risks and does not over task the capability of the security system.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

M04-0-90-022H
Installation of Raceway from the
Station Blackout Building to the Reactor Building

DESCRIPTION:

This partial provided for the installation of outdoor cable tray and conduit on the east and south sides of the Reactor Building. Routing of cable is contained under M4-0-90-019A. There were three ladder type cable trays installed. Conduit was attached to the bottom of the supports.

The new raceway, conduit and supports are installed to allow for routing of cables from the SBO Building to the 4-kv Division I & II buses 13-1, 23-01, 14-1, and 24-1 allowing the new 4-kv switchgear system associated cable to distribute power from the SBO Diesel Generators to the plant during a Station Blackout (SBO). Control and instrument cables were routed to system tie-in points primarily in the cable spreading room. The completion of this modification and M04-0-91-019A provides an alternate AC source which complies with NRC Regulation 10CFR50.63, "Loss of All Alternating Current Power."

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Tornado and Wind Loads UFSAR SECTION 3.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the raceways, conduit, and supports installed on the exterior of the reactor building in support of the Station Blackout Diesel Generator Project are being installed in accordance with the applicable station procedure and structural requirements.

Bechtel has evaluated the raceway design for the tornado and wind design conditions for the static and live loads applied during the normal course of plant operation.

Sargent and Lundy has evaluated this design for the affect of this additional normal and seismic load on the exterior of the Reactor Building.

Based upon the above, this partial modification does not create the possibility of an accident or malfunction of a type different from those evaluated in the FSAR/UFSAR.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This DCR was submitted to document the following as-builts. The first as-built involved the breaker size feeding the Turbine Building freight door. The installed breaker size is a 5 amp instead of a 3 amp as originally designed. The 5 ampere breaker provides adequate protection as verified by the calculation performed utilizing CECO procedure QCEM 200-2.

The second as-built reflects the deletion of a preheater drain valve (off-gas) solenoid and two limit switches on the wiring diagram. The revised wiring diagram matches the associated schematic diagram which removed these items under modification M04-2-73-041.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Chimney Release Rate UFSAR SECTION 15.7.2.5.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the use of a 5 amp breaker instead of a 3 amp breaker feeding the Turbine Building freight door does not create the possibility of an accident. The 5 ampere breaker provides adequate protection as verified by the calculation performed utilizing CECO procedure QCEM 200-2.

Revising a wiring diagram to reflect the deletion of equipment per modification M04-2-73-041 also does not create the possibility of an accident. The wiring diagram was inadvertently not updated when modification M04-2-73-041 was incorporated onto the affected documents.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.