



Commonwealth Edison

Quad Cities Nuclear Power Station
22710 206 Avenue North
Cordova, Illinois 61242
Telephone 309/654-2241

AMS-94-028

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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 month of September, 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,

ComEd
Quad-Cities Nuclear Power Station

Anthony M. Scott
System Engineering Supervisor

AMS/dak

Enclosure

cc: J. Martin, Regional Administrator
C. Miller, Senior Resident Inspector

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DESCRIPTION:

The aforementioned procedures have vibration limitation requirements of 5 mils and 13 mils placed in the "limitations and actions" portion of the surveillances. This requirement was based on the HPCI VETI manual recommendations for turbine operation. Based on past testing data for the HPCI turbine vibration probes, VD-1 and VD-2, a problem exists in the mounting of the probes such that the vibration readings are much higher than actual vibration readings. Therefore, the procedures were revised such that the vibration readings will be determined by qualified IST personnel only. This has already been evaluated under SE-94-060.

Also, the QCOS 2300-1, 5 procedures were changed such that no verification will be performed prior to placing the turbine on turning gear. The turning gear lever arm can be in the engaged or disengaged position prior to placing the turbine on turning gear. This does not affect the operation of the turning gear, thus, the verification step in the procedure was removed.

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:

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 vibration probes are non-safety related and are not bounded by the UFSAR or technical specifications. There is no annunciator alarm or trip function associated with these probes.

Because the probes are mounted incorrectly on the turbine shaft, the readings observed on the vibration recorder during a HPCI surveillance test are much higher than actual vibration readings. This has been verified by comparing the vibration readings from the vibration recorder with the vibration data recorded using hand accelerometers. Therefore, the procedure was changed such that the IST personnel will evaluate vibration readings. This is consistent with industry standards.

Presently, the IST vibration program has more conservative acceptance criteria than the procedure. The procedure states the vibrations on the turbine should be below 5 mils (1.05 in/sec) during operation. Above 5 mils, notify SE and System Engineer and if the turbine exceeds 13 mils (2.72 in/sec), then the system should be declared inoperable. This is based on the vendor recommendations. The IST acceptance criteria is: below 1.55 mils (0.325 in/sec) is acceptable, 0.325-0.7 in/sec (1.55 mils - 3.3 mils) is alert range, and above 0.7 in/sec HPCI is declared inoperable. Therefore, the system will be monitored for proper vibration trends and will allow for proper action to be taken if a vibration concern exists. (Refer to SE-94-060 for evaluation).

The function of the turning gear is to prevent rotor bowing or sag concerns especially on a restart of a hot rotor. This can lead to rubbing which can cause greater vibrations leading to bearing failures and failure of the turbine to operate. Especially on restart of a hot rotor. Thus, the turning gear must engage and operate properly.

Also, the turning gear components could impact the turbine ring gear which, in turn, can result in rotor unbalance or damage to the turning gear itself. The turning gear could come off of its mount resulting in a loss of oil pressure to the LP bearing and subsequent bearing failure. Thus, the turning gear must be able to disengage properly on turbine startup. There is no requirement for the turning gear to remain engaged or disengaged during standby condition. The turning gear will operate as before, thus the procedure is being changed to reflect this.

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

SE-94-072
Interim Procedure 812

DESCRIPTION:

Created method to transfer water from the Rx Cavity to the Torus using the RHR System without the 1001-34B available.

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 Draining of
the Reactor Vessel

UFSAR SECTION: 5.4.7.2.3

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 interlock between the 1001-7 and 1001-43 is provided as part of the protection against inadvertent RPV draining. It is stated in the UFSAR that the operability of the interlocks is not required to perform any safety related function. Permission is provided to defeat those controls (interlocks) provided the possibility of inadvertent draining has been evaluated and that it is being defeated for short periods of time and for a specific evolution. This meets the criteria as a specific, short term evolution. The inadvertent draining has been evaluated and factored into elements of the procedure. The operating crew maintains positive control from the control room through use of the 1001-47 and 1001-50 valves. 1001-7 can also be closed manually to control draining. If manual control is not sufficient, through remote electrical means or manual valve manipulation, then the 1001-47 and 1001-50 will automatically close when RPV level reaches +8 inches.

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 P&ID M-78 to remove the "L.C." (locked closed) designation for Unit 2 Core Spray Valve 2-1402-32B. This change matches the existing plant conditions for valve 2-1402-32B.

This DCR revised schematic diagram 4E-1508B Sht. 2 to show the correct terminal point designation at 250 VDC Motor Control Center (MCC) 1B, Compartment T02 for Residual Heat Removal (RHR) Discharge to Radwaste Valve MO 1-1001-21. This change matches the existing plant conditions and associated wiring diagrams for valve MO 1-1001-21.

This DCR revised key diagram 4E-2317 to show the correct breaker rating ("40A") for the Unit 2 High Pressure Coolant Injection (HPCI) Turbine Emergency Bearing Oil Pump. This change matches the existing plant conditions and associated wiring diagrams for this breaker located at 250 VDC MCC 2A, Compartment C01.

This DCR revised wiring diagram 4E-2822 to correct equipment piece numbers (EPNs) for the Sample Pump and Bypass Pump associated with the Unit 2 Primary Containment Oxygen Analyzer System. This change matches the existing plant conditions and the associated P&ID.

This DCR revised wiring diagram 4E-1629 and wiring tabulation 4E-1878 to show existing connections for the Turbine Electro-Hydraulic Control (EHC) System pressure switches. This change matches the existing plant conditions for the Unit 1 Turbine EHC 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:

Decrease in Heat Removal By the Reactor Coolant System	UFSAR SECTION 15.2
Increase in Reactor Coolant Inventory	UFSAR SECTION 15.5
Decrease in Reactor Coolant Inventory	UFSAR SECTION 15.6
Sequence of Events and Systems Operation	UFSAR SECTION 15.6.5.2
Anticipated Transients SCRAM	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 revising P&ID M-78 to remove the "L.C." (locked closed) designation for Unit 2 Core Spray Valve 2-1402-32B, revising schematic diagram 4E-1508B Sht. 2 to show the correct terminal point designation associated with RHR Discharge to Radwaste valve MO1-1001-21, revising key diagram 4E-2317 to show the correct breaker rating associated with the Unit 2 HPCI Turbine Emergency Bearing Oil Pump, revising the EPNs for Sample Pump 2-8741-8 and Bypass Pump 2-8741-9 associated with the Unit 2 Primary Containment Oxygen Analyzer and revising wiring drawings 4E-1629 and 4E-1878 to show the correct wiring connections associated with the Unit 1 Turbine EHC System will provide better assistance to operations and maintenance, help clarify the design and will not add 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:

Revised wiring, electrical installation, and cable tabulation drawings to reflect the as-built condition of equipment associated with the rod worth minimizer. The rod worth minimizer was replaced (ref. modification M4-1(2)-84-9) and various equipment and cabling associated with the old system was removed but was still shown on the drawings. In addition, schematic diagrams associated with the Core Spray and 4KV Power Systems were revised to correct a breaker contact number and wiring points for a breaker contact respectively. The function and operation of these systems 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:

Reactivity and Power	SAR SECTION	15.4
Distribution Anomalies		
Decrease In Reactor Coolant	SAR SECTION	15.6
Inventory		

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 Rod Worth Minimizer, Core Spray and 4KV Power systems remains unchanged. The changes associated within this DCR remove equipment and cabling associated with the old rod worth minimizer from the drawings and corrects a breaker contact number and wiring points. These changes do not create the possibility of the Rod Worth Minimizer, Core Spray or 4KV Power systems malfunctioning or of causing an accident different than 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.

DESCRIPTION:

Drawing M-463, Rev. AC, "Diagram of Process Sampling Part 3" was revised to show line 2-8803W-1/2"-AL as partially heat traced, instead of completely heat traced. The as-found condition is that only a few feet of this line is heat traced above the Primary Containment Oxygen Analyzer 2252-43.

The as-found condition matches the original installation condition. A drafting error during addition of heat tracing to this drawing incorrectly showed heat tracing on the entire section of line 2-8803W-1/2"-AL between valve FCV 2-8802D and line 2-8811-1/2"-AL.

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 is an editorial change to correct a drafting error on a previous revision which documented the heat tracing. This change does not alter the system function or any failure modes. This editorial change restores the drawing to its original system design configuration.
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 incorporation of detailed as-built information into the applicable P&IDs for the Stator Winding Cooling Water System of both units. This change was implemented to better document the physical plant and ensure consistency with its governing design documents.

For the purpose of performing a 10CFR50.59 Safety Evaluation, the revisions implemented under this DCR have been broken into categories as follows:

Group I	Editorial Revisions
Group II	Considered Editorial Revisions
Group III	Potentially Significant Revisions

The Group I revisions involved intact movement of systems/components to different P&IDs or revisions to accommodate changes in equipment numbers. For these revisions there are no "design significant" changes and a safety evaluation is not required.

These include:

- Assignment of standardized equipment numbers to various system components/valves/instruments and small-bore lines.
- Re-draw of the system piping diagram, including generation of separate Unit 1 & 2 P&IDs M-2020 Sht. 1 (Unit 1) and M-2020 Sht. 2 (Unit 2).
- EPN assignment and Instrument Air references for Temperature Control Valves TCV 1(2)-7499-Y7 and Pressure Control Valves PCV 1(2)-7499-Y63 (Reference M-2020 Shts. 1 and 2)
- Addition of size designation for 5" blind flange and deletion of blanking plate reference on Generator Stator Winding Cooling Water outlet line 1(2)-7424-8".
- Revision of valve numbers and P&ID symbols for Stator Winding Cooling Water pump discharge stop-check valves and pressure switch isolation valves.
- Revision of P&ID symbols for filters 1(2)-7403, 1(2)-7406.
- Revision of continuation arrows for lines 1(2)-4352-1 1/2", 2-4322-1 1/2"-L and 2-4326-2"-L to accommodate equipment relocation on P&IDs (Reference M-58 Sht. 3).
- Movement of line 2-4354-1 1/2"-L to P&ID M-58 Sht. 3 from M-71-1.
- Deletion of spurious reference to conductivity element C-3 on previous revision of P& ID M-2020.
- Relocation of Service Water components of the Stator Winding Cooling Water heat exchangers to Service Water

P&IDs M-22 Sht. 1 (Unit 1) and M-69 Sht. 1 (Unit 2).

Group II revisions are those cases of adding information to drawings, or incorporation of as-built information that is traceable to either an approved document contained in the original system design, and approved design change for which a 10CFR50.59 evaluation was previously performed, or items that have been previously evaluated and determined not to produce a change in the functional design of the system nor alter system operation or performance outside the bounds of the approved system design.

On this basis, Group II revisions are considered to be in accordance with current approved system design and their incorporation into the affected design drawings is "considered" editorial in nature.

These Group II items include the following:

- Documentation of non-functional instrumentation configuration changes in Stator Winding cooling Water Control cabinets 2251(2)-7.
- Representation of Pressure Switch 1(2)-7441-82 (added under Modifications M4-1(2)-78-36) on P&IDs M-2020 Shts. 1 and 2.
- Documentation of non-functional configuration changes associated with the Stator Winding Cooling Water make-up supply, including:
 - Removal of sump connection
 - Piping design table break revision as specified by original design
- Redraw of Expansion Tank atmospheric discharge regulation hardware to more accurately convey original physical design characteristics of the equipment.
- Redraw of Alterrex rectifiers to more accurately reflect the physical description provided in original vendor-supplied documentation.
- Revision and increase in level of physical detail associated with the system local instrumentation.
- Connection points for line 1(2)-7450-1/2".
- Inclusion of Conductivity Element Signal destinations for CEs 1(2)-7441-1 thru 4.
- Revision of the functional order of Temperature Elements TE-1(2)-7441-TDP1, TDP1A, TDT1
- Revised location of Temperature Elements TE 1(2)-7441-TFT2, TFP2.

There were no Group III (Potentially Significant Revisions) identified in this DCR.

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 alter system function or degrade the physical integrity or reliability of the current system. As the functional design basis for the system remains unaltered, and no new failure modes or mechanisms are introduced, it follows directly the possibility of an accident or malfunction for this or any related system due to the operation of or interaction with the Stator Winding Cooling Water System has not changed from that which previously existed.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

This change involved incorporation of as-built information for the Main Generator Hydrogen and Carbon Dioxide Systems into the applicable Piping and Instrumentation Diagrams (P&IDs). This was performed to ensure consistency between the physical plant and the applicable design documents.

For the purpose of performing a 10CFR50.59 Safety Evaluation, the revisions as noted have been broken into 3 categories as follows:

Group I:	Purely Editorial Revisions
Group II:	Considered Editorial Revisions
Group III:	Potentially Significant Revisions

The Group I revisions involved intact movement of systems/components to different P&IDs or revisions to accommodate changes in equipment numbers. For these revisions there are no "design significant" changes and a safety evaluation is not required. These include:

- Generation of separate P&IDs for each respective unit
- Editorial changes to the P&ID index (M-12 Sht. 1) to accommodate changes to drawing titles and numbers for other DSWP DCRS.
- Assignment of numbers to previously undesignated miscellaneous instrumentation, equipment and small-bore piping.
- Pictorial Addition of Hydrogen coolers in generator casings on P&IDs M-30 Shts. 1 and 2

Group II revisions are those cases of adding information to drawings, incorporation of as-built information that is traceable to either an approved document contained in the original system design, an approved design change for which a 10CFR50.59 evaluation was previously performed, or items that have been previously evaluated and determined not to produce a change in the function design of the system nor alter system operation or performance outside the bounds of the approved system design.

On this basis, Group II revisions are considered to be in accordance with approved system design and their incorporation into the affected design drawings is "considered" editorial in nature. The safety implications of the following Group II items are therefore not required to be evaluated as part of this 50.59.

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- Clarification of Piping Design Table requirements for lines 2-5301-1 1/2"-U and 1(2)-5303-3"
- Identification of valves 1(2)-5399-35 as ball type
- Revised sequence of connections on discharge line 1(2)-5303-3"
- Addition of miscellaneous vent/drain and test/calibration physical details to the P&IDs
- Increasing level of physical detail for as-built instrument installations
- Identification of line sizes and PDT requirements for Hydrogen supply header relief valve discharge lines 1(2)-5307
- Identification of Generator casing drain collection lines and details
- Identification of line size for CO2 supply lines 1(2)-7647-2" and H2 supply line 1(2)-5301-1"
- Clarification for physical design of CO2 supply relief valve discharge line 1(2)-7647-1 1/2" (1")-AC
- Clarification of CO2 supply manifold configuration
- Identification of piping/instrument details internal to Hydrogen Control cabinets 2251(2)-7
- Revised configuration of Unit 2 H2 supply relief valves RV 1(2)-5399-G8
- Identification of tubing details on test line for portable thermal conductivity analyzer
- Clarification of physical configuration of Main Generator Exciter housing CO2 discharge lines
- Location of sensing connection for Pressure Indicator PI 1-5341-8201
- Identification of vent line size for Generator Core Condition Monitors (GCMs) 1(2)-5303
- Identification of wire type saunders for Unit 2 GCM test connection shutoff valves 2-5399-46 & 47
- Reduction of Unit 2 GCM 2-5303 supply and return lines to 1/4" line size
- Revision of hydrogen supply manifold connections and bulk hydrogen supply valve alignment based on station operating practice
- Setpoint of 60 psig max has been shown on the P&IDs for hydrogen supply pressure regulating valve 1(2)-5399-GRE2

There were no Potentially Significant Revisions (Group III) identified in this DCR.

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 as the functional design basis for the system remains unchanged, it follows directly that the possibility of an accident or malfunction for this or any related system due to the operation of or interaction with the Generator H2 and CO2 System has not changed from that which previously existed.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

DESCRIPTION:

Changes implemented under this DCR involved issuance of new and revised P&IDs and revised HVAC drawings to accurately incorporate detailed as-built walkdown information into the governing Diesel Generator Room Ventilation and related systems design documents. This DCR was implemented to better document the physical plant and ensure its consistency with the applicable design documents.

The drawing changes requested as part of this DCR involved intact movement of systems/components to different P&IDs, revisions to accommodate changes in equipment numbers, or addition of as-built information that is traceable to either an approved document contained in the original system design, an approved design change for which a 10CFR50.59 evaluation was previously performed, or items that have been previously evaluated and determined not to produce a change in the functional design of the system nor alter system operation or performance outside the bounds of the approved system design. These changes include:

- Original system P&IDs M-813, M-1533 and M-1532 were superseded by new P&IDs M-813 Sheets 1, 2, and 3 for the Unit 1, 2 and 1/2 diesel generator rooms, respectively
- Presentation of supply and return air for the respective diesel generator rooms was revised on P&IDs M-372 and M-374.
- Instrument air supply piping configuration to the respective diesel generator ventilation panel (2251-32, 2252-32 and 2212-32) was clarified on P&IDs M-24 Sheets 4 and 14 and M-71 Sht. 1
- HVAC damper schedule (M-379) was updated to include revised EPNs and additional design information for the control and isolation dampers associated with the diesel generator room ventilation systems. All information was gathered from existing physical drawings or damper specifications. Similar information was provided for the HVAC dampers associated with the Control Room HVAC system.
- Instrument air piping information for each diesel generator ventilation panel and pneumatic piping from these panels to the control dampers was detailed on P&IDs M-813 Sheets 1, 2, and 3. This additional information included the configuration of air supply pressure regulating and relief valves, the presence of accumulators on air supply line to buffer system pressure spikes, absence of supply air filters, presence of vents on several pneumatic lines, and addition of EPNs for panel components.

- Identification of normal cooling fan and its associated dampers/ductwork for the 1/2 diesel generator room on P&ID M-813 Sht. 3.
- Presentation of steam space heaters and their associated power supply information on P&IDs M-813 Sheets 1, 2, and 3.
- Main Exhaust flow path through the trackway walls was detailed and the exhaust fan inlet vane removal was clarified.
- Electric control logic including interlocks was added for clarification of diesel generator room ventilation system operation on P&IDs M-813 Sheets 1, 2 and 3.

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	15.6.5
Main Steam Line Break	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 the configuration clarifications for the standby diesel generator ventilation system will not affect function or operation of the diesel generator or turbine building ventilation systems since the changes provided by this DCR are in accordance with the original system design intent.

UFSAR Section 9.4.5 and the Section 9 Table of Contents will require minor editorial revisions to reflect the P&ID number changes for the standby diesel generator ventilation systems figures. 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:

DCR 4-93-255 incorporated detailed as-built walkdown information for the Unit 2 Reactor Building Closed Cooling Water (RBCCW) system. Changes implemented under this DCR involved the issuance of new and/or revised P&IDs. These changes were reviewed to ensure their consistency with the applicable design documents. The P&IDs affected by this DCR are: M-75 Shts. 1 & 2, M-85, M-462A Sht. 3, M-33 Sht. 1, M-36, M-43, M-22 Sht. 4, and M-69 Sht. 4.

For the purpose of performing a 10CFR50.59 Safety Evaluation the revisions as noted below have been broken into 3 categories as follows:

Group I:	Editorial Revisions
Group II:	Considered Editorial Revisions
Group III:	Potentially Design Significant Revisions

Group I revisions involved the relocation of components to different P&IDs or revisions to accommodate changes in equipment numbers to better reflect/represent system functions and operations. For these revisions, there are no "design significant" changes which required a safety evaluation as the design has not changed. The Group I items are as follows:

- Assignment of standardized equipment numbers to various system components, valves, instruments and piping.
- Re-draw of the system piping diagram which included the generation of a new sheet to the Unit 2 RBCCW system. M-75 superseded and redrawn on M-75 Shts. 1 and 2.
- Relocation of RBCCW supply and return valves 2-3799-129 and 130 to M-75 Sht. 1 from the Hydrogen verification autoclave P&ID.
- Indication of building transitions and elevations with respect to the piping/equipment location.
- Relocation of RBCCW Heat Exchanger cooling water lines, vents and drains from M-85 and M-69 Sht. 4 for Unit 2 and from M-22 Sht. 1 to M-22 Sht. 4 for Unit 1. Some of the RBCCW B train heat exchanger vent and drain lines were also renumbered to mimic the A train assigned numbers.
- Renumbering of the non-regenerative heat exchangers 2-1204A/B RBCCW supply, return and associated piping.
- Renumbering of the RBCCW demineralized water supply lines to 2-37129-1 1/2"-L and 2-37130-1 1/2"-L.
- Relocation of RBCCW expansion tank lines 2-4897-3"-L and 2-4808-6"-L from M-85 to M-75 Sht. 1 and the renumbering of these lines and components to the 3700 series.

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- Number assignment of 2-4801 to previous un-numbered flow gauge on M-85.
- Renumbered the 3/4" RBCCW supply and return lines of the drywell pneumatic compressor heat exchanger to the 3700 series, reference M-75 Sht 1.
- Number assignment of 2-3799-168 to previous un-numbered valve on the RBCCW return line from sample panel 2-2252-45
- Relocation of RBCCW drywell torus particulate sample cooling water heat exchanger shutoff valve 2-3799-107 from M-463 to M-75 Sht. 1
- Line 2-37100-1 1/2"-L renumbered to 2-37104-1 1/2"-L on M-75 Sht. 1.
- Relocation of the Unit 1 & 2 hydrogen coolers 1(2)-5301A thru D and their associated service water lines from M-22 Sht. 1 to M-22 Sht. 4 from M-69 Sht. 1 to M-69 Sht. 4, respectively.
- Relocation of the RBCCW pump casing drain lines from M-85 to M-75 Sht. 1
- Renumbered the fuel pool heat exchanger discharge drain line.
- Relocation of bonnet leak-off line for valve MO 2-0202-4B from M-77 Sht. 2 (previously removed) to M-85.
- Indication of valve LCV 2-3701 failure position
- Relocation and renumbering of RBCCW supply and return lines for compressor 2-8701B and after cooler 2-8715B

Group II revisions are those cases of adding information to the drawing, or incorporation of as-built information that is traceable to either an approved document contained in the original system design, an approved design change for which a 10CFR50.59 evaluation was previously performed, or items that have been previously evaluated and determined not to produce a change in the functional design of the system nor alter system operation or performance outside the bounds of the approved system design. Group II revisions are considered to be in accordance with the approved system design and their incorporation into the affected design drawings is considered editorial in nature. For these revisions, there are no "design significant" changes. The safety implications have previously been addressed and do not required to be re-evaluated as part of this safety evaluation. The Group II items are as follows:

- Incorporation of valve XCV 2-8941-728 and line 2-89019-1/2"-YZ on M-85 as shown on drawings M-1061 Sht. 1 and M-1082 Sht. 44.
- Relocation of 10" X 8" reducer on line 2-3747-10"-L, and the addition of 14" X 10" reducers on the RBCCW pump suction, reference M-75 Sht. 1.

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- Connection re-location of lines 2-37106-2"-L, 2-3718-1 1/2"-L, 2-3774-3/4"-L, 2-3741-3"-L, 2-3777A-3/4"-L, 2-3777B-3/4"-L, 2-37141-1"-L, 2-37140-1"-L, 2-3712-1"-H, 2-3759B-3/4"-L, 2-3726A-6"-L and 2-3726B-6"-L, 2-3719-1 1/2"-L and line 2-0215-2"-L
- Addition of normally open valve 2-3799-106 on the RBCCW supply to the primary containment oxygen sampling system heat exchanger
- Addition of instrument TI 2-3741-10, a 1" tap connection on line 2-3747-16"-L and a 3" flange connection for instrument RE 2-1727
- Addition of a 1" capped connection on the 1/2-3701 RBCCW pump discharge line and on line 2-3705A-1 1/2"-L
- Valve MO 2-3701 bonnet drain line 2-3741-1/2"-L connection size change
- Deletion of a 14" X 10" reducer on line 2-3709B-10", reference M-75 Sht. 1
- Connection relocation of instruments TI 2-3741-6A, 2-3741-6B, TE 2341-19, PT 2-3741-21, PS 3741-22, TI 2-3741-9, TS 2-3741-26, and TI 2-3741-50
- Valves 2-3799-87 and 2-3799-85 have been revised to globe valves
- Addition of RBCCW pump gland seal pressure lines and casing vent valves
- Lines size change of RBCCW discharge header sample tap lines 2-3759A-3/4"-L and 2-3759B-3/4"-L
- Line size and number change of the RBCCW heat exchanger relief valve discharge lines 2-4868A-1"-0, 2-4868B-1"-0, 2-487A-1"-L and 2-4870B-1"-L
- Addition of RBCCW heat exchanger tube side and shell side relief valve setpoints
- Configuration change of the RBCCW supply and discharge lines for the drywell coolers and the drywell equipment drain sump heat exchangers
- Size change of the RBCCW supply and return lines for the Cleanup Recirc pumps 2-1205A and 2-1205B, and the addition of glove valves 2-3799-177A and 2-3799-177B
- Configuration change of the RBCCW supply and return lines for the reactor recirc pumps 2-0202A and 2-0202B and the addition of safety boundaries
- Configuration and details for instruments DPI 2-3741-48A, DPI 2-3741-48B, FT 2-3741-46B, FT 2-3741-50A, PI 2-3741-23A/B, PI 2-3741-24A/B, PI 2-3741-25A/B, PT 2-3741-21, PS 2-3741-22 and LG 1(2)-3741-27 have been revised
- Identification of safety class break on LLRT test connection line 2-37110-3/4"-RWC
- Pressure test connections revised to show caps/plugs

- Reconfiguration of the 1-48150-2"-L and 2-48150-2"-L drain headers and their sources Reactor Building equipment drain heat exchangers vents and drains; Core Spray pump seal vent, drain, and casing drain lines; and Reactor Building equipment drain pump lines) including the addition of a check valve on the drain headers
- Addition of grab sample lines from RBCCW pump common suction and discharge headers 2-3737-16"-L and 2-3701-16"-L
- RBCCW supply and return line size changes for the 2-8715A aftercooler
- Addition of capped line 2-37131-3/4"-L and associated isolation valve 2-3799-154 on RBCCW pump discharge line
- Addition of pressure indicator calibration valve 2-3941-84
- Valves 1(2)-3977A thru H and 1(2)-3929A thru H have been revised to ball valves.
- Addition of redundant normally closed ball valve 1-3999-267
- Addition of a 1" X 1/2" reducer on lines 1(2)-3977A thru H

The undocumented "design significant" changes addressed by this evaluation (Group III) are as follows:

- Addition of normally closed secondary shutoff valves 2-3799-87A, 2-3799-41A, 2-3799-85A, 2-3799-93A, 2-3799-97A, 2-3799-126A, 2-3799-69A, 2-3799-74A, 2-3799-49A, 2-3799-108, 2-3799-108, 2-3799-48A, and 2-3799-105A on the RBCCW grab sample lines and in some cases indicate the first isolation (primary shut-off) valves as normally open
- Threaded fittings installed on drain lines 2-4877A-3/4"-L and 2-4877B-3/4"-L for the RBCCW heat exchangers
- Relocation of grab sample lines and pressure test connection between each set of the dual non-regenerative heat exchangers 2-1204A and 2-1204B
- Connection size changes on expansion tanks 2-3703 for lines 2-37129-1 1/2"-L, 2-3741-3"-L and 2-3773-3/4"-L

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	8.3.1
Loss of Auxiliary Power	UFSAR SECTION	9.3.1.1
Single or Multiple	UFSAR SECTION	15.3.1
Recirculation Pump Trips		
Anticipated Transients	UFSAR SECTION	15.8
SCRAM		

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 alter the RBCCW system function or degrade its physical integrity or reliability. The functional design of equipment important to safety remains unaltered, and no new failure modes or mechanisms are introduced. The possibility of an accident or malfunction for this or any related system due to the operation of or interaction with the RBCCW system has not increased.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-2-93-189
Replace LI 2-0263-151A/B And
Add Isolation and Equalizing Valves for Ease of Calibration

DESCRIPTION:

This Exempt Change replaced the Varway Level Indicators LI-002-0263-151A and LI-002-0263-151B. The instrument tubing for this instrument was modified to include isolation valves and an equalizing line for ease of calibration.

These instruments were replaced, because they are obsolete and have reached the end of their useful life.

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
Instrument Line Break Outside Containment	UFSAR SECTION 15.6.2

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 there are no new system interfaces created by this Exempt Change, which is essentially a component replacement.

The interaction between the LIs and the rack and the instrument lines has been evaluated by the Designer. The new LIs are seismically qualified and mounted. Therefore, there is no known hazard created that could impact nearby equipment.

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