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October 20, 1999

SVP-99-180

U. S. Nuclear Regulatory Commission
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Washington, D C 20555

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Summary Report of Changes, Tests, and Experiments Completed

In accordance with 10 CFR 50.59 and 10 CFR 50.71(e), we are forwarding Quad Cities Nuclear Power Station's Quarterly Summary Safety Evaluation Report. These safety evaluations cover the period of May 1, 1999 through July 31, 1999. Safety evaluations after July 31, 1999 that are associated with UFSAR changes in the Revision 5 Biennial UFSAR Submittal are also included.

Should you have any questions concerning this letter, please contact Mr. C. C. Peterson at (309) 654-2241, extension 3609.

Respectfully,

Joel P. Dimmette, Jr.
Site Vice President
Quad Cities Nuclear Power Station

Attachment: Summary Report of Changes, Tests, and Experiments Completed

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

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ATTACHMENT A

SUMMARY REPORT OF CHANGES, TESTS, AND EXPERIMENTS COMPLETED
May 1, 1999 to July 31, 1999

SVP-99-180

SAFETY EVALUATION INDEX

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* Safety Evaluations completed after July 31, 1999 that are associated with UFSAR Changes for Rev. 5.

DESCRIPTION:

This change is the addition/installation of a mounting strap on the internally mounted upper and lower breaker auxiliary switches. This strap will function to mechanically hold the auxiliary switch in place. The existing auxiliary switch and contact block mounting T-bolts will be utilized to position the block, thus maintaining the correct mechanical configuration. A nylon Ty-Wrap (Panduit: Model BT8LH-L) mounting strap will be installed around the auxiliary switch and contact block (both upper and lower) to hold the block in position as dictated by the T-bolts. A sleeve tubing will be installed around the strap to protect it from mechanical wear during operation of the breaker. The "clamping" force created by the addition of the mounting strap (as demonstrated by testing) will not affect the electrical function/performance of the auxiliary switch or affect the mechanical actuation of the switch contacts. Reference Test Procedure M-1997-0810-00 "TEST PLAN FOR TY-WRAP TEMPORARY ALTERATION". For some breakers, the upper and/or lower auxiliary switches will be replaced because the condition of the switch is degraded to the point that pieces of the phenolic body are dislodged and/or missing. Replacement switches will be Ty-Wrapped to their associated mounting plates. The installation activities associated with the addition of this mounting strap and/or replacement of switches will have no affect on plant operations since all work will be performed inside the breaker while the breaker is out of service.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because breaker auxiliary switches are not discussed as initiating events for a LOOP/LOCA; however, the probability of a LOOP/LOCA from the failure of the auxiliary switch mounting has not increased as a result of adding the mounting strap. The integrity of the mounting for the auxiliary switches is restored by the addition of a mounting strap and thus the design function of the breakers is restored.

   The strap is installed around the auxiliary switch, either original or replacement, and metal bracket to provide mechanical support and ensure proper operation of the circuit breaker. The strap provides additional margin by providing a means of securing the auxiliary switch in place. The auxiliary switch will also be secured with the original four T-bolts. The strap is capable of securing the auxiliary switch by itself without any vertical support of the four T-bolts (reference switch configuration in MEG test plan M-1997-0810-00).

   The operation of the 4160-V circuit breakers is not changed by the addition of the mounting strap or the replacement of the switch. After the addition of the strap, to supplement the mounting design, the auxiliary switch and the respective circuit breakers are less susceptible to a failure. The circuit breaker will open and close when required to allow accident mitigation. Therefore, the consequences resulting from a LOOP/LOCA are not changed.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because per the testing and

engineering calculation discussed in Section 5, the new mounting strap will ensure that the auxiliary switches remain securely fastened to the breaker mounting bracket during both normal and accident conditions. The calculation and testing show that structural integrity of the auxiliary switch mounting has been restored for 150 operating cycles and 18 spring discharges by installing the new mounting strap. The testing also concludes that the electrical performance of the switch is not affected by the addition of the strap. This change eliminates the potential failure of the auxiliary switch mounting without introducing any new failure modes. The "clamping" force created by the addition of the mounting strap (as demonstrated by testing) will not affect the electrical function/performance of the auxiliary switch or affect the mechanical actuation of the switch contacts. The installation of replacement switches will not introduce any new failure modes because the switches will be installed in a configuration equal to or better than the tested configuration.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based; therefore, there is no reduction in the margin of safety.

Tracking No. SE-97-114
Activity No. DCP 9700172

DESCRIPTION:

Changes the time delay setpoint for relay 27XTD from 2 seconds to 3 +/- 0.15 seconds. If the time delay were to actuate below 2 seconds, then potential damage could occur to either the diesel generator or ECCS pumps.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the Safety Analysis Report is not increased because the setpoint will not interfere with the required starting time of the diesel. The worst case delay is still within the criteria for the DG auto start/energization of the emergency bus of 10 seconds.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report is not created because the setpoint is enveloped by the time for the diesel getting up to rated speed and rated voltage permissive contact closures. The change does not impact the EDG or 4160 volt systems or functions.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the increase in time for the time delay relay for the breaker does not affect the 10 second closure time of the breaker.

Tracking No. SE-98-027
Activity No. UFSAR-97-R5-031

DESCRIPTION:

The ISP system is required to reduce risk due to an Appendix R fire. The Individual Plant Examination of External Events (IPEEE), which was performed in response to NRC Generic Letter 88-20, identified a Core Damage Frequency (CDF) number outside the industry standards. The ISP modifications will place the CDF number within the industry allowable. The installation encompasses the two tie-ins to the Contaminated Condensate Storage Tank (CCST) piping lines 1-3340-20"-AG and 2-3340-24"-AG and valves 0-2899-12 and 0-2899-11, respectively, and a blind flange on each section. The new piping is common to both units' ISP and thus is designated 0. Supports for the two stub pipes will be installed to assure the integrity of the existing CCST system. The supports will be anchored to the Reactor Building and SBO Building. The UFSAR was revised to reflect that the CCST are now on a different drawing number.

The Safety Evaluation was also used for DCP 9700353, which was not Op authorized during this report period. The summary will be included if the DCP is installed. This 50.59 summary is being submitted to support a UFSAR change.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the Safety Analysis Report is not increased because the addition of the piping tie-ins will not increase the probability of the CCST to malfunction and therefore, its' associated systems will not be affected. The pipe supports installed by this portion of the design change (DCN's 001632M and 001665M) are passive in nature and do not interact with any other plant systems or components that could affect the probability of the malfunction of any equipment important to safety. The new piping and supports are qualified per UBC, AISC, USAS B31.1 and other applicable codes and standards delineated and meet or exceed the design qualifications of the system. Therefore, the consequences, of the system failure, have not changed due to this installation.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report is not created because the work being performed for the two ISP tie-ins-is in accordance with applicable codes, standards and procedures. In order to eliminate the potential to drain the CCST, via leaks, the lines will be inservice tested or radiographed to assure pipe, valve, flange and weld integrity. The acceptance criteria is no visible leakage. The attachment of the two supports to the RB and one to the SBO building, are also qualified per DE&S calculations. The calculations demonstrate that the integrity and functions of both buildings will not be impacted. Based upon these

qualifications, which are the same as the original designs, the changes will not adversely impact the associated structures, systems or components. Therefore, there are no malfunctions or accidents of a different type possible.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the Technical Specification or SAR provides a margin of safety or acceptance limit for the applicable parameter or condition.

Tracking No. SE-99-004
Activity No. DCP 9900011 & 9900014

DESCRIPTION:

Replace Residual Heat Removal (RHR) Pressure Switches 2-1001-74A(B).

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the new switches will provide the same function as the original switches in that they will alert operators to potential reactor leakage past the 2-1001-29A(B) and 2-1001-68A(B) valves. The existing setpoint of 85 psig is erroneous and not in accordance with General Electric's original design standard of 400 psig. The new 350 psig setpoint for these switches will improve the system's performance in that operator challenges from the nuisance alarms will be eliminated. The switches will be procured Safety-Related meaning that their pressure retaining components are purchased to higher standards than the existing switches. Since the new switches will be procured and installed to higher standards than the existing ones, the chances of leakage from the RHR discharge piping is reduced. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the safety analysis report does not increase.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the new switches are constructed and will be installed in a similar manner as the existing switches. Their failure mechanisms are the same, which is a failure of the pressure retaining components. Since a failure of the pressure retaining components for the new switches produces the same result as failures in the existing switches (i.e. RHR discharge piping leakage), the same accidents/transients are the result. The setpoint change is required to provide a more reliable alarm in the control room. A failure of this alarm would prevent operators from becoming aware of leakage past certain valves. However, the possibility of an alarm failure existed with the existing switch producing the same results, which would be the lifting of an RHR relief valve. The possibility of an accident/transient of a different type than previously evaluated remains the same.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the subject pressure switches do not perform any functions required by the Technical Specifications.

Tracking No. SE-99-006
Activity No. DCP 9800223; UFSAR-97-R5-111

DESCRIPTION:

The Air Injection Sub-system of the Oxygen Injection system will be modified to provide a continuous air bleed into offgas. This will be done by removing the inlet isolation valve and replacing it with a check valve and a flow restricting venturi. Also, the controllers for the systems will be modified so that the air flow signal is ignored by the system. The Offgas Oxygen Analyzers will have a sample flask added to the inlet so that the analyzers see a one minute running average of the offgas mixture. UFSAR has been revised to reflect this change.

The Safety Evaluation was also used for DCP 9800222, which was not Op authorized during this report period. The summary will be included when the DCP becomes Op authorized.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this modification does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because after this modification, the supplemental Air Injection System system will not operate in any way that is different in principle from its current state. (i.e. It will draw air from the Turbine Building and bleed it into the Offgas System upstream of the SJAE suction.) What will be different is that the maximum flow will be limited to 30 scfm, the automatic controls will not be used, and the system will be prevented from reverse flow by means of a spring loaded check valve. All of the changes to the system move its performance in a more conservative direction (i.e. lower flows, passive means of preventing reverse flows, and elimination of automatic controls). Nothing in the changes introduces any flowpath, interaction, potential malfunction or accident that had not existed previously. Therefore, since the system operates in fundamentally the same way only with its behavior more tightly constrained, malfunctions or accidents of a type not previously evaluated cannot be created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this modification was determined not to serve as the basis for any Technical Specification, thus it cannot affect margin of safety.

Tracking No. SE-99-019
Activity No. UFSAR-97-R5-124 and UFSAR-97-R5-125

DESCRIPTION:

SE-99-019 is for UFSAR Change 97-R5-124 for Section 9.5.2.2.2, Intraplant Communications, and change 97-R5-125 for Section 13.3, Emergency Planning. They delete references to the Corporate Emergency Operations Facility (CEOF). With recent NRC approval, near site Emergency Operations Facilities (EOFs) are being eliminated, and their functions will be consolidated at a central EOF in the ComEd Corporate offices. This new central EOF will be referred to as the EOF.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the EOF does not interface with any nuclear safety-related operating plant equipment. The EOF provides management of the overall emergency response, coordination of radiological and environmental assessments, determination of recommended public protective actions, management of recovery operations, and coordination of emergency response activities with Federal, State, and local agencies. All safety-related systems will continue to function as currently stated in the UFSAR. This UFSAR change does not affect operating plant systems, structures, or components; therefore, the probability of occurrence or consequences of any accident or transient, and the probability of any equipment malfunction important to safety will not be increased.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this UFSAR change deleting the near site EOF does not affect safety-related plant systems, structures, or components; therefore, the possibility of any accident or transient of a different type will not be increased. All safety-related systems will continue to function as currently stated in the UFSAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this UFSAR change deleting the near site EOF does not affect safety-related plant systems, structures, or components; therefore, the margin of safety used as a Technical Specification basis, is not reduced.

Tracking No. SE-99-020
Activity No. FPR Change Package 99-02

DESCRIPTION:

This change updates Section 3.6, Structural Steel Analysis. Many of the cable limits listed in table 3.6-2 had increased requiring reanalysis of the localized effect of fire on structural steel.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the initiating event for this analysis is a fire. The changes made do not add ignition sources that would lead to a fire. The additional cables have been previously evaluated for added combustible loading and do not cause any fire barrier to be breached. The consequences of the accident or malfunctions have not changed since no structural steel members cause a failure of any fire barriers or safe shutdown equipment.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the fire analyzed in reference to the structural steel is bounded by the design basis fire. Additional cables in the plant are not the initiators for any other accident described in the UFSAR. Therefore, no new accidents or malfunctions occur as a result of this change.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change in the analysis of the strength of the structural steel does not effect any piece of equipment that is relied upon to safely shutdown the plant. The fire barriers separating fire areas described in the Safe Shutdown Report are not affected by the revision to this analysis. The only barrier interaction is at the interface of TB-III and SB-I. The failure of structural steel in TB-III does not cause the fire barrier between these areas to fail. Therefore, there is no change in the ability of the plant to be safely shutdown.

Tracking No. SE-99-022
Activity No. Technical Specification Bases 3/4.5.A&B

DESCRIPTION:

Add a statement to Technical Specification Bases 3/4.5.A & B explaining that if either the low pressure or high pressure HPCI flow tests fail, then Technical Specification Section 3.5.A, Action 3 will be applied.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this change to the Technical Specification bases does not affect the initiators for any of accident or transient. Additionally, this change does not affect any equipment or the way any equipment is operated and therefore, cannot increase the probability of a malfunction of equipment important to safety.

   This change will not make a failure of the HPCI subsystem more likely and since the current Technical Specifications allow continued operation for 14 days with HPCI inoperable this change will not increase the consequences of any HPCI failure over those already accounted for in the current Technical Specifications.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this change to the Technical Specification Bases is a wording change only and does not change any equipment such that a different type of accident or transient could occur.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this change does not allow the plant to operate any longer with the HPCI subsystem inoperable. Therefore, the margin of safety for Technical Specification 3/4.5.A is not affected.

   Technical Specification 3.0.A will continue to be applied. This change just clarifies the bases for Technical Specification 3/4.5.A to require compliance with 3.0.A. Therefore, the margin of safety for Technical Specification 3.0.A is not affected.

   Technical Specification 4.0.D will continue to apply. This change does not affect this specification. If the required HPCI testing fails during start-up, Technical Specification 4.0.D will continue to apply just as required by the specification. Therefore, the margin of safety for this specification is not affected by this change.

Tracking No. SE-99-027
Activity No. ODCM Rev. 2.0

DESCRIPTION:

ODCM Revision 2.0

Quad Cities Changes to Offsite Dose Calculation Manual (ODCM), Revision 2.0 include:

* Moved a river sediment sample location closer to the Station.
* Editorial changes that include deleting duplication within the ODCM, moving information within the ODCM to different Chapters, etc.

* Adds clarifying information, updates references, deletes background information that did not specifically address the ComEd ODCM Program.
* Added a paragraph which references Generic Letter 79-041 which gives the basis for compliance with 40CFR190 requirements.
* Added a paragraph that discusses dredging the river near nuclear power stations.
* Clarified paragraph to state noble gas concentrations are contained in Station Technical Specifications.
* Added emphasis that contained radioactive material stored onsite produces doses that are negligible in comparison with applicable limits due to skyshine and potential doses due to radioactive waste storage.
* Changed the Ra value for a teenager from 3700 to 8000 to be consistent with Regulatory Guide 1.109 and the ODCM software.
* Created a section that incorporates a reference to Federal Guidance Report #11 (FGR #11) for the dose commitment factors addressing 10CFR20 compliance calculations. This also includes a description to illustrate how the dose factors were derived from FGR #11.
* Created a new table "Regulatory Dose Limit Matrix," and adds additional requirements and limits to calculate total body and skin dose if air dose is exceeded.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the ODCM does not interface with any nuclear safety-related operating plant equipment either directly or indirectly. The equipment in the ODCM provides an indication of the consequences of an accident by the using samples of air, water, soil, fish, produce, and milk offsite to monitor the radiological effects the station has on the environment around the station. All safety-related systems will continue to function as currently stated in the UFSAR. This ODCM change does not affect operating plant systems, structures, or components; therefore, the probability of occurrence of any accident or transient will not be increased.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this ODCM change does not affect operating plant systems, structures, or components; therefore, the possibility of any accident or transient of a different type will not be increased.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this ODCM change does not affect safety-related plant systems, structures, or components; therefore, any margin of safety used as a Technical Specification basis, is not reduced.

Tracking No. SE-99-028
Activity No. DCP 9900031 Rev. 4; UFSAR-97-R5-128

DESCRIPTION:

The proposed activity is to remove/disable the recirculating water dissolved oxygen (O_2) concentration High/Low annunciator at the 901-53 panel in the control room per Design Change Notice (DCN) 001803I. The scope of the required work will only include de-terminating and removing wiring from the 901-53 panel and replacing the engraved tile on the annunciator display with a blank tile.

Also being evaluated are the changes required for the current revisions of station procedures QCAN 901(2)-53 B-4 (Reactor Oxygen Concentration High or Low) and QCOP 2700-05 (Hydrogen Injection Flow Controller Operation). These procedures will be revised to reflect the removal of the O_2 concentration alarm at the 901-53 panel. Other required editorial or format changes may also be incorporated into these procedures.

This safety evaluation also revises UFSAR Section 5.4.3.4 to enhance the description of the Hydrogen Water Chemistry Performance Analysis.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the intent of the Hydrogen Water Chemistry (HWC) system is to prevent and/or retard Inter Granular Stress Corrosion Cracking (IGSCC) in pressure bounding vessels and components such as the Recirc system piping. Preventing IGSCC may reduce the probability of a Recirc suction Line Break. The installation of the Noble Metal Injection system and the associated monitoring equipment will enhance the HWC system by providing more effective utilization of injected hydrogen and providing a more accurate method of measuring the effectiveness of the HWC system. The new method of measuring the effectiveness of the HWC system does not utilize the current O_2 concentration limits. Therefore, the removal of the O_2 concentration alarm does not affect the ability of the HWC system to combat IGSCC and does not change the probability of the occurrence of a Recirc Suction Line Break.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the function of the O_2 concentration alarm was to alert control room operators of a concentration level outside the specified band of operation. This alarm would prompt Operations to monitor and assess the HWC system and make adjustments as required to ensure HWC system was operating within the established parameters to effectively combat IGSCC. Since the installation of the Noble Metal Injection system, this alarm function is no longer required to assess the effectiveness of the HWC system. Since this alarm function only notified operators when the HWC system was operating outside parameters and these parameters are no longer

required, the removal of this alarm function will not create the possibility of an accident or transient of a different type than any previously evaluated.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because no Technical Specification requirements, associated action items, associated surveillances, or bases are affected by this design change.

Tracking No. SE-99-030
Activity No. FPR Change 99-04

DESCRIPTION:

Eliminate the use of RHR to Radwaste Inboard and Outboard Valves in the QCARPS and Fire Protection Reports.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because manual valves are being used to perform the same function as the RHR 20 and 21 (MOVs operated in the manual mode); the probability of manual valve failure or improper operation is not increased. An engineering evaluation of the new flow path indicates that it will provide the same design flow as the original path.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the possibility of manual valve failure is equal to or less than operating a MOV in the manual mode. Both piping flow paths are adequately designed to support the required function.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the use of manual valves to reduce torus water level while in the QCARPS does not result in greater potential for inadvertent draining than the use of the RHR 20 and 21 valves.

Tracking No. SE-99-031
Activity No. UFSAR-97-R5-130

DESCRIPTION:

Safety Evaluation was prepared for Revisions to UFSAR Sections 8.3.1.9 - Station Blackout Diesel Generator System, 8.3.1.9.4.3 - Engine Lubrication Subsystem and 8.3.1.9.4.4 - Engine Cooling Subsystem for the Station Blackout Diesel Generator (SBO DG). Section 8.3.1.9 was revised to state that the safe shutdown function of the SBO DG is described in the Safe Shutdown Report. Section 8.3.1.9.4.3 was revised to state that two valves are required to be opened to prelubricate the SBO DG for normal startups, not a single valve. Section 8.3.1.9.4.4 was revised to state that there

is one AC driven jacket water booster pump per jacket water cooling subsystem, not multiple pumps.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the Station Blackout Diesel Generator System was installed as a manually activated system to mitigate a Station Blackout event. The system design and operation cannot initiate a Station Blackout event or degrade plant containment barriers. Adding a cross-reference to where the safe shutdown function of the SBO DG is described only directs the reader to where this function is already described (Fire Protection Safe Shutdown Report).

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the UFSAR is being revised to state component configuration descriptions of the SBO DG system components that reflect the original design basis requirements of the system. The SBO DG was designed in accordance with the design recommendations of NUMARC 87-00, Attachment B to mitigate an SBO Event. The design precludes the possibility of an accident of a different type than any evaluated previously in the UFSAR for this purpose.

   The UFSAR is also being revised to state that the safe shutdown function of the SBO DG is described in the Safe Shutdown Report (FPR Vol. 2). This is an editorial change that provides reference to the Appendix R Safe Shutdown Report which describes this capability in detail. This reference to the Safe Shutdown Report does not create a new accident scenario than previously evaluated.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the Station Blackout Diesel Generator System is not part of any Technical Specification at Quad Cities Station.

Tracking No. SE-99-034
Activity No. UFSAR-97-R5-132

DESCRIPTION:

This UFSAR change revises the type of coating on Unit 1 torus, revises the design bases for ECCS suction strainers and describes the methodology used in debris analyses as part of the resolution of NRC Bulletin 96-03, "Potential Plugging of Emergency Core Cooling System (ECCS) Suction Strainers by Debris in BWRs for Quad Cities Nuclear Power Station, Units One and Two".

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this change involves the design basis assumption for strainer debris loading, including coatings, following a DBA-LOCA. While this change affects the ability of the strainers to provide their required function following a DBA-LOCA, it does not increase the probability of the accident because there is no impact on the reactor pressure boundary.

   The change to re-coating of the torus with an approved coating material minimizes the amount of potential coating debris and will protect the integrity of the torus shell and vent header. The change to the strainer debris loading assumption will not affect any release barriers and does not adversely affect the ability of the ECCS pumps to provide the required flows following a DBA-LOCA.

   The change from a qualitative assessment that debris will have negligible affect on strainer head loss to a detailed evaluation using approved methodology reduces the probability of the malfunction of any of the pumps protected by the strainers. The change in coating material using a qualified coating decreases the probability that the coating will fail. The torus shell and ECCS suction strainers are passive components that are not assumed to fail under normal operating or post-accident conditions.

   The change to the torus coating will not adversely affect the integrity of the torus shell and therefore, will not increase the consequences of a malfunction of equipment important to safety. The change to the strainer debris loading assumption will not affect any release barriers and does not adversely affect the ability of the ECCS pumps to provide the required flows following a DBA-LOCA.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the torus coating has been qualified as Service Level 1 coating and will continue to protect the torus shell as required, and will not adversely affect any other equipment. The strainer design bases assumption change is in agreement with NRC guidance and does not create the possibility of a failure of an ECCS suction strainer or any of the pumps protected by the strainers. There are no changes of the failure modes, frequency, class or acceptance criteria of the accidents. There are no new accident initiators or failure modes as a result of this change.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this change will not adversely affect the operation or operability of the ECCS pumps or RHR pumps, since conservative analyses that determine the maximum debris, including coatings, does not have an adverse effect on pump NPSH.

Tracking No. SE-99-035
Activity No. FPR Change Package 99-04; UFSAR-97-R5-131; QAP 1170-17 Rev. 12

DESCRIPTION:

There are three changes being evaluated.

1) The Radwaste Supervisor position is removed from the normal operating shift manning.
2) The requirement for having three non-licensed Operators to support Safe Shutdown activities is being changed to 2 Non-licensed Operators and a Chemistry Technician.
3) Remove the requirement to maintain one of the two surface thermometers in the control room.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the changes have been evaluated and are within the bounds of the current Safe Shutdown Analysis. Therefore, no different fire event has been created. There are no new types of components that have been added to plant that would create new failure modes or introduce new fault initiators. The changes deal with the mitigating actions following a fire.

   The changes in personnel does not affect the probability of failure. The Chemistry Technicians (CT) have been provided with the training necessary to perform the tasks assigned to them. This training ensures that the CTs will have the same probability of correctly performing the required tasks of tripping the EDGs as the Operator originally assigned to perform the tasks. The Operator replacing the on-shift Radwaste Supervisor also is a fully trained fire brigade member; and therefore, also does not change the probability of malfunction of the fire brigade.

   The location of the surface thermometer from the control room does not affect the probability of its failure.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the changes have been evaluated and are within the bounds of the current Safe Shutdown Analysis. Therefore, no different fire event has been created. There are no new types of components that have been added to the plant that would create new failure modes or introduce new fault initiators. The changes deal with the mitigating actions following a fire.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because per the Safe Shutdown Report, the plant can achieve and maintain safe shutdown. The analysis relies on manual actions to ensure that reactor water make-up, inventory control, and decay heat removal are started. The changes made do not change these functions, or the timeline to complete the required manual actions. Therefore, this change does not adversely affect the ability to shutdown the plant in the event of a fire.

Tracking No. SE-99-037
Activity No. DCP 9900103; UFSAR-97-R5-133

DESCRIPTION:

Permanently remove relief valve RV 2-0220-238 installed on recirc sample Line No. 2-0251-3/4"-A inside the drywell and install a blind flange. The UFSAR has been updated to reflect this.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the piping and associated components have been qualified for all loading conditions including thermal overpressurization as described in NRC Generic Letter 96-06, Supplement 1, with the relief valve removed and the blind flange installed. Containment isolation or related instrumentation is not altered in any way.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the relief valve is no longer required to mitigate thermal overpressurization. Removing the relief valve and installing the blind flange will eliminate the reactor coolant leakage that has been experienced through the relief valve. The failure of the blind flange joint is bounded by the loss of coolant accident from piping breaks inside containment.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because Section 3/4.6.N of the Technical Specification requires that containment isolation be maintained. The removal of the relief valve and installing a blind flange eliminates a potential leak path, decreases the likelihood that reactor coolant leakage will occur, and is in accordance with the applicable design requirements.

Tracking No. SE-99-038
Activity No. Procedure CC-AA-401, Rev. 0

DESCRIPTION:

Procedure CC-AA-401, Revision 0 provides a method for the installation and control of temporary lead shielding on structures, systems or components to achieve a reduction in personal radiation exposure. In addition, guidelines are provided for the use of water shields, frisker booths and shielding structures. This procedure will replace existing procedure QCAP 0640-01.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because procedure CC-AA-401, Revision 0 implements a controlled mechanism for the installation and removal of lead shielding using an evaluation process which maintains the design basis and functionality of the affected system, structure, or component (SSC). The installation of the temporary shielding does not create an accident initiating condition, nor does it impact the ability of any SSC to mitigate the consequences of any accident.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because no new failure modes or conditions are created by the implementation of procedure CC-AA-401, Revision 0. No interactions are created with interfacing equipment that could create or impact any new accident.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the margin of safety, as defined in the basis of the Technical Specification, is not reduced because this procedure does not change any parameters upon which Technical Specifications are based.

Tracking No. SE-99-039
Activity No. QCOP 5500-12; UFSAR-97-R5-134

DESCRIPTION:

Implement new procedure QCOP 5500-12 Rev. 0, Placing Memtec (Pleated) Condensate Demin Vessel in Service Without Resin. Also revise the following existing procedures that are affected:

QCOA 0201-04 Rev. 5	Reactor Coolant High Conductivity
QCAN 901(2)-7 G-7	Condensate Pump Discharge High Conductivity
QCAN 901(2)-7 H-12	Condensate Demin High Conductivity
QCAN 901(2)-4 D-13	Demin Filter Inlet Hi Conductivity

Establishing the new procedure and revising existing procedures is being accomplished to allow and direct short term actions that may be taken to avoid the unnecessary cycling of reactor power in the event of a condensate system demineralizer (demin) filter failure. A demin filter may fail due to small tears in the filter pleats. As a result, resin and iron crud may leak by the filter causing the demin post strainer to plug and experience a high differential pressure. The proposed procedure implementation and revisions would permit the degraded condensate demineralizer filter to be backwashed and then put back on line without a resin precoat. Additional demins could then be taken off-line, backwashed and precoated, and then put back on-line as required allowing continued operation at or near rated conditions.

Clear directions are being incorporated into new procedure QCOP 5500-12 to discontinue the operation of the condensate demin filter without the resin precoat if Action Level 1 Water Chemistry limits are exceeded. UFSAR Section 10.4.6.2 will also be permanently revised as a result of the noted procedure changes. Wording describing that it may be desirable to place a condensate demin in service without resin on the filter element in limited circumstances will be incorporated into this section of the UFSAR. This section will also state that water chemistry parameters will be used to limit the length of time that the condensate system is in this configuration.

The intent of implementing these changes is to allow for the timely planning and execution of condensate demin filter element replacement while avoiding the Operator challenges associated with an unnecessary change in reactor power.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because operation of the condensate demin system as described in the new procedure and the revised existing procedures has no direct impact on any accident or transient described in the UFSAR. The noted procedures do not affect the plant's response to any accidents or transients described in the UFSAR and no plant parameters are changed in any way. The potential impact of this change is a short-term reduction in reactor coolant water chemistry. Proper water chemistry is important to long term Reactor Coolant System integrity, however, poor water chemistry does not create any immediate safety or equipment performance issues. The administrative controls being implemented in conjunction with the condensate demin filter operation prescribed by the new procedure assure that appropriate corrective actions are taken before any discernable increase in the probability of a malfunction of equipment important to safety would occur. The operation of the condensate demineralizer system without a resin precoat on one demineralizer filter will not affect equipment failures or malfunctions. Over the short term of intended operation in this manner, water quality would not be expected to change significantly. Therefore, the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because there are four main reasons why the operation of the condensate demin system without a resin precoat on one demin filter will not create any equipment failures or malfunctions that have not been previously evaluated in the safety analysis report:

    1. Existing water quality requirements and associated required actions are unchanged.
    2. The flow rates through the individual condensate demin filters are unchanged and remain within their design limits (i.e. no new failure modes due to excessive flow).
    3. New procedural limitations that require operation in this manner to be stopped if Level 1 water chemistry limits are exceeded.
    4. Operation in this manner is intended to be a short-term action that will not have a significant impact on water chemistry.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because no Technical Specifications are affected by these proposed procedures

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Tracking No. SE-99-043
Activity No. DCP 9900112

DESCRIPTION:

Temporary Modification to install a temporary Air Handling Unit (AHU) to provide temporary forced cooling. This AHU will be a portable unit that will be installed in parallel with the supply duct to deliver cool air to the Unit 2A Recirc MG motor ventilation supply ducts. The AHU will receive power from the 13.8 Kv Unstacking Xfrmr. distribution system available on the Turbine main floor for construction and utility power. The AHU will take a portion of the supply air from the ventilation supply header up stream of the 2A Recirc MG drive motor (2-0202-51A). It is expected that the AHU will drain approximately 13 gal/hr of condensate during operation. During the summer months the Recirc MG set ventilation system takes in 100% outside air versus a recirculation mixture.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because a concern which provides an increased possibility of losing ventilation or of inadequate ventilation is in the event the AHU temporary supply ducting becomes disconnected or damaged. This concern only exists because of the additional lightweight ducting being routed in and around traffic areas. The modification will ensure that this ducting and the connections are secure and rigidly fastened. Also the duct will be properly supported and identified for plant personnel as risk significant temporary equipment. The complete disconnection of the temporary ducting at the normal supply will degrade the MG-set cooling significantly and could require a reduction in recirc flow and reactor power to ensure the MG-set stays adequately cooled. However, the temporary modification will insure this connection is solid and not likely to become disconnected. Currently the same result could occur if the ventilation doors to the supply ducts were to be opened by personnel. Minor breaches of the temporary AHU chiller and ducting provide ample time for operations to detect the degraded cooling which may result. Failure of the AHU chiller unit will not affect the Motor-Generator adversely, some air flows may be out of balance following a loss of the fan in the AHU. Again, this can be detected by operations by increased temperature readings or alarms.

   This temporary modification will not provide a condition which realistically increases the probability of a rapid reduction of reactor coolant flow rate. This activity reduces the likelihood that the M-G set will fail during hot weather. The Recirculation Motor-Generator and the supporting ventilation system do not provide any mitigation to the decrease of the Reactor Coolant Flow rate.

There is no credit taken for this system to mitigate accidents. This temporary modification does not affect the consequences of any accident or transient.

There is no direct malfunction of the Recirculation Pump Motor-Generator created. The design of the temporary modification will ensure the likelihood of a partial loss of cooling due to a system breach is insignificant. This also will ensure the potential for the spread of contamination is reduced. The equipment being installed will be installed so as not to impact equipment in the event of a fire or a seismic event by proper design and location of temporary equipment.

Therefore, the probability of a malfunction of the Recirculation Pump Motor-Generator is not increased.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the Recirculation Pump Motor Generator is subject to a failure of the cooling provided by Recirculation Pump Motor-Generator Ventilation. This failure does not result in an immediate failure of the Recirculation Pump Motor-Generator but will require operator action to correct and or compensate for the reduced cooling. This type of failure existed prior to this activity. There are alarms and indication in the control room for Recirculation M-G set temperatures. Therefore, this malfunction has been previously evaluated and existing procedures will detect this condition.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the only relationship to the Technical Specifications concerning the Recirculation Pump M-G units deals with pump speed limits. The speed involves the hydraulic scoop tube units and not the drive motor. The drive motor is a constant speed machine and also the ventilation for this machine does not affect the speed controls. Therefore, the margin of safety for parameters involve Reactor Recirculation system flows are not affected.

Tracking No. SE-99-045
Activity No. Interim Procedure 99-0028

DESCRIPTION:

Revise Diesel Generator (DG) Monthly Surveillance Test to prevent the 1/2 Diesel Generator Cooling Water Pump (DGCWP) Fuel Oil Pump and Room Vent Fan from transferring to Bus 28 and to test run the 1/2 DGCWP on Bus 28 after the 1/2 DG is shutdown.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this change does not affect the initiators of the subject accidents. It does not affect the probability of a malfunction because only the 1/2 DG is affected by the change and the 1/2 Diesel Generator is already INOP in this procedure. This change does not affect any release path and the consequences of any malfunction remain the same.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the change only affects the 1/2 DG, the 1/2 DG is already inoperable for the surveillance and all actions are independently verified.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this interim procedure continues to verify 1/2 DG operability and operability of its auxiliaries; therefore, no Technical Specification margins of safety are affected.

Tracking No. SE-99-047
Activity No. Safe Shutdown Report (SSR) Fire Protection Report, Vol. 2 Revision #CRN99-05 and UFSAR-99-R6-006

DESCRIPTION:

The proposed activity updates the referenced documents by extending the time line for establishing a high-pressure injection capability to the reactor vessel level during an Appendix R fire scenario and providing the basis for establishment of this time line. The time allowed to begin high-pressure injection is increased from 31 minutes to 35 minutes. This additional time provides extra margin for operators to perform the required tasks associated with initiating the appropriate injection source.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because revision of the high pressure injection timeline does not require physical changes or additions to the plant; therefore, cannot increase the quantity or physical arrangement of combustible material, nor does it create additional ignition sources. The specific purpose of the SSR and UFSAR is to describe the systems & methods available to mitigate an accident (in this case, a fire as postulated in the fire hazards analysis) that has already occurred. This change does not increase the probability that the postulated accident (fire) may occur.

   Maintaining coolant level above the top of active fuel precludes fuel cladding damage, the primary defense against release of radioactive materials. The revision to the high pressure injection timeline is based upon mathematical modeling of a General Electric (GE) software code approved for use by the NRC for calculating temperature characteristic of BWR vessels. Increasing the timeline for high pressure coolant injection by 4 minutes does not directly impact operation of the systems or components responsible for control of off-site dose and does not compromise the analyses of radioactivity in station releases. The proposed changes to the SSR and UFSAR are administrative in nature (incorporation of new information only) and do not require physical changes in structure or methods by which any plant System, Structure or Component (SSC) are operated or maintained. For this reason, the proposed changes cannot increase the consequences of the accident.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the only equipment failures considered by Appendix R or analyzed in the SSR are those caused by fire damage. The possibility of an accident or transient's occurrence considered in the proposed revisions is the same as the current revisions. Therefore, this change does not adversely affect the ability to achieve and maintain safe shutdown following a fire.

   Failure of the high pressure injection system to operate is no more likely to occur utilizing either timeline. Therefore, the incorporation of the timeline (35 minutes) to the uncovering of active fuel bundles rather than level in the bypass region could not lead to the occurrence of any accident or transient not previously evaluated.

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

   1. Section 2.1.D & Bases — Reactor Vessel Water Level

   The change does not affect any parameters upon which this Technical Specification is based because it does not change the required vessel water levels or operational responses to vessel level changes in any plant mode; therefore, there is no reduction in the margin of safety.

   2. T.S. Section 6.8.A.7 — Implementation of the Fire Protection Program

   The change does not affect the programmatic or procedural methods by which the station implements the Fire Protection Program.

   3. License Condition h.3.f — Changes to the Fire Protection Program

   The change is administrative in nature and does not require any physical changes to Safe Shutdown SSC's. The change also does not affect the programmatic or procedural methods by which the station changes the FPR. Thus, there is no decrease in the specified safety limit/margin of safety.

Tracking No. SE-99-052
Activity No. UFSAR-97-R5-136

DESCRIPTION:

The UFSAR revision will correct the description of the 125 Vdc and 250 Vdc systems to accurately reflect:

1. Description of loads fed from essential 250 Vdc system and clarification of MCCs and loads that feed or are fed by the essential 250 Vdc system (Design Basis Initiative (DBI) Open items 530, 531, and 532).
2. Plant operational practice related to the levels at which action must be taken when potential grounds are discovered in the 125 Vdc and 250 Vdc systems (DBI open items 533 and 606). The effect of the proposed UFSAR changes will be a revision to the UFSAR which will result in clarification of the UFSAR as described above. This change is limited to documentation. No physical or operational changes will result from this change.

SAFETY ELVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this editorial change meets the design basis which is reflected in the accident/transient analysis. Therefore, the physical and operational characteristics of the plant will remain unchanged hence the probability of occurrence of plant accidents and transient will remain unchanged.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this editorial change meets the design basis which is reflected in the accident /transient analysis. Therefore, the proposed UFSAR change will not create the possibility of an accident or transient of a different type than any previously evaluated because the UFSAR change is not a physical or operational plant change.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change is consistent with Technical Specifications and Technical Specification bases. The Technical Specifications and Bases identify systems and components required for operability of the DC systems. No change in design or operation results from the UFSAR changes which are only documentary.

Tracking No. SE-99-055
Activity No. QCOS 1000-31 and QCOS 1000-33

DESCRIPTION:

This evaluation corrects and supercedes SE-99-001 per PIF Q1999-02030 and implements new procedures QCOS 1000-31 and QCOS 1000-33 that perform portions of the RHR logic system

functional test. The new procedures allow the performance of these portions in Mode 1. The remaining portions will be performed in Mode 4, 5, or no mode under other new procedures.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the tested initiation logic RHR/RHRSW subsystems are not physically connected to the primary system boundary or reactivity control system. The consequences of an accident or malfunction of this equipment is not increased as the affected subsystems will be declared inoperable prior to the test and all technical specification requirements for redundant equipment will be operable.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because within the RHR initiation logic circuitry, components will be bypassed or actuated using accepted maintenance practices. These activities are performed on subsystems that are inoperable and within an AOT. Circuit breakers for the RHR/RHRSW pumps are racked into test to allow verification of the logic without actually closing the breaker. Inspections will be performed to ensure that equipment is returned to its design condition before the subsystem is required to be operable. There is no increase in the probability of a malfunction of equipment important to safety, since the equipment will either be operated according to its design or will be inspected before it is required to be operable.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because Technical Specifications allows seven days of operation with the affected equipment inoperable. This test is expected to last less than 24 hours, which is well less than the AOT; therefore, the margin of safety is not reduced.

Tracking No. SE-99-059
Activity No. UFSAR-97-R5-140

DESCRIPTION:

QAP 0300-11 Rev. 8, Shift Orders, will be replaced with the upgraded and re-formatted OP-AA-101-404 Rev. 0, Standing/Daily Orders. This is being done to implement a common Nuclear Generation Group methodology of doing business. Pat of the new procedure will require a change to Quad Cities UFSAR Section 13.5.1.3.1, Shift Orders. Part F will be changed to require the Shift Operations Supervisor to periodically review the shift orders for continued applicability, instead of the Operating Engineer. Part G will be changed to eliminate the requirement for shift personnel required to read the shift orders to sign their initials. Table 13.7-1 will be changed to remove the Daily orders log from the list of records requiring record retention. The remainder of the content in the new procedure will be reformatted, but otherwise unchanged.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the procedure states that operating orders shall not conflict with existing procedures, technical specifications, administrative technical requirements, or ODCM. They shall not be used as substitute for procedures. No plant manipulations or actions will be directed by the operating orders. Any plant manipulations will only be performed using station approved procedures.

   The new procedure changes three administrative requirements specified in the UFSAR and are identified in the description. The Shift Operations Supervisor, a license SRO, is responsible for the day-to-day operating activities of the station and managers the shift crews overall. He would be the most knowledgeable manager to perform periodic reviews of the operating order for continued applicability.

   The licensed management personnel on shift are required to review the operating orders as part of the shift-turnover procedure. The shift-turnover procedure provides a place to document that the standing orders have been read; therefore, initialing the operating orders is redundant.

   Document retention is classified based on its' value to demonstrate the capability for safe operation or determine the cause of an accident or malfunction of an item. Based on that description, operating orders would be considered nonpermanent records.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the new procedure will have no affect on equipment failures or malfunctions. No changes are being made to plant equipment, equipment operating procedures, or surveillances. The operating orders shall not conflict with existing procedures, technical specifications, administrative technical requirements or ODCM. No unreviewed plant configurations or operational changes will be directed in the operating orders.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because Technical Specification 6.8.A.1 requires that written procedures shall be established, implemented, and maintained as recommended in Appendix A of Regulatory Guide 1.33, Rev. 2, dated February 1978. Operating logs, which include daily orders, are considered part of these procedures. Technical Specifications, Regulatory Guide 1.33, and the referenced ANSI Standards state what procedures are required to be in place, and specify the documents that shall be retained for review. The station has complied with these documents, and are delineated in USAR Section 13. The new procedure meets the intent of both the Technical Specifications and Regulatory Guide. The operating orders would not provide significant value in demonstrating the capability for safe operation or determining the cause of an accident or malfunction of an item; therefore, the operating orders would be classified as nonpermanent records. No unreviewed plant configuration or operational changes will be directed in the operating orders; therefore, the margin of safety is not reduced.

Tracking No. SE-99-061
Activity No. UFSAR-97-R5-120; PIF # Q1998-03268

DESCRIPTION:

As a result of a Design Basis Initiative (DBI) review for UFSAR Section 8.3.1.9.4.13, several discrepancies were identified between the UFSAR and supporting design basis calculations/documentation. To resolve the identified discrepancies, this change incorporates the clarifications into the UFSAR. The clarifications are:

Remove reference to a 6kW electric heater rating for the Station Blackout (SBO) Diesel Generator Battery Room ventilation system because the actual size of the heater is 10kW. The 6kW-heater is actually the calculated minimum required heat load from the electric heater.

Remove reference to 95 °F SBO diesel generator room as it conflicts with other statements made in the UFSAR and design basis calculations.

Replace existing summer (77 °F) and winter temperatures (72 °F) in the SBO Battery Room with a nominal design temperature of 77 °F because the values specified are not identified as nominal, minimum, or maximum and are not consistent with the design basis calculations.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the SBO Diesel Generator system is physically and electrically isolated from the station during normal operation.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because there are no physical changes being made to the SBO Diesel Generator system or structure. This change to the SBO Design Basis wording ensures that the UFSAR design basis information can be consistently and accurately transmitted.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the SBO Diesel Generator system is not a part of the Station Technical Specifications.

Tracking No. SE-99-068
Activity No. UFSAR-97-R5-138

DESCRIPTION:

This change eliminates the description in UFSAR Section 13.7.10, which states that Office Support maintains medical records.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the change eliminates an administrative description of the organization that maintains medical records. Systems, structures or components relied upon to mitigate any accident described in the SAR are not altered or affected in any manner as a result of this change. Therefore, the probability of occurrence or the consequences of any accident or malfunction of equipment is not changed.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this administrative change does not modify any existing equipment, introduce any change in the operation of any systems or components or install any new equipment with the potential to create the possibility or malfunction of a different type to the facility. Therefore, a different type of accident or malfunction is not created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the margin of safety is a design parameter, that provides a limit, which when affected it becomes undesirable. This non-technical administrative change does not affect any margin of safety described in the Technical Specifications or Bases. A reduction of margin of safety is not introduced with this change.

Tracking No. SE-99-071
Activity No. UFSAR-99-R6-005

DESCRIPTION:

PIF Q1997-03217 was written for " An engineering evaluation of the valves listed in the UFSAR Table 6.2-7 to ensure only those components that are containment isolation valves are listed and subject to code. The review should also include the 0220-105's and 0220-81's as they perform similar function and are not listed in the UFSAR Table 6.2-7. The UFSAR table 6.2-7 is being revised to reflect the changes. The above changes and changes per PIF # Q-1999-02967 are described in response to question 8 of the safety evaluation. This is a rewrite of SE-99-056 as required by PIF Q 1999-02740 and supercedes it.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the proposed changes have not resulted in any additions, deletions, or alterations to any equipment. All the Appendix 'J" procedures have been reviewed and there are no changes to any of these procedures as a result of the proposed changes. There will be no increase in the probability of occurrence or consequences of an accident or, malfunction of equipment important to safety previously evaluated in the safety analysis report. Attachment C& D of QCTS 0130-01 Rev 9 will be revised to clarify qualified water seal. Ref AR # 16167.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the proposed changes have not resulted in any additions, deletions, or alterations to any equipment. All the appendix "J" procedures have been reviewed and there are no changes to any of these procedures as a result of these changes. These changes revise the UFSAR to the actual plant configuration to ensure that the design basis requirements are met. The proposed changes will therefore not create the possibility of a different type of malfunction of equipment important to safety than any previously evaluated.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the margin of safety as described in the basis for any technical specification will not be reduced because the Leak Testing Program Procedures are not changed; the leakage limits have not been changed.

Tracking No. SE-99-077
Activity No. UFSAR-97-R5-103

DESCRIPTION:

The purpose of this activity is to revise the Updated Final Safety Analysis Report (URSAR) to:

1. Reflect the correct Control Room Emergency Ventilation System (CRVS) system design capabilities regarding automatic and manual transfer between the normal mode of operation to the isolation mode of operation.
2. Reflect the correct isolation time for the CREVS normal isolation makeup air intake dampers.
3. Reflect the correct Air Filtration Unit (AFU) airflow rated required by Technical Specifications.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the probability of a malfunction of equipment important to safety will not be increased since no physical changes to any SSC will be made as a result of this activity. This activity will, therefore, not result in any changes to the temperature control or habitability control functions associated for either train of the CREVS, in any CREVS operating mode. Additionally, this activity will not cause the need to change any Station operating or emergency procedure.

   The activity applies only to the CREVS and will not alter the functions of the CREVS assumed to occur for any accident. Since the post-accident functions of the CREVS, and the equipment the CREVS supports will not be changed by this activity, there is no change to the off-site or Control Room dose.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because this activity does not functionally change the way the CREVS is operated in any mode, does not result in any physical changes to any SSC, and does not introduce any new failure modes. There is therefore, no effect to any SSC which the CREVS supports during normal operation or in any post-accident mode of operation. Since no SSC is directly, or indirectly affected by this activity, there is no adverse system impact or possibility that an accident of a different type than those previously evaluated in the SAR will result.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based; therefore, there is no reduction in the margin of safety.

Tracking No. SS-H-98-115
Activity No. DCP 9300116; E04-1-93-207

DESCRIPTION:

Resupport the Residual Heat Removal Service Water (RHRSW) piping to reduce the amount of pump and pipe vibration.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this modification reduces vibration stress in the pump and piping. The probability and consequences are unchanged. The RHRSW system does not contribute to the probability of any accident, and the re-support of this line has no impact on the consequences.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the re-support of the pipe was performed in accordance with the applicable code requirements. The changes made are passive in nature. There are no changes to the process parameters or system interaction.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the changes do not affect parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0025
Activity No. QCOS 6500-10; SE-97-114

DESCRIPTION:

This is a procedure revision to QCOS 6500-10, Rev. 1 Sesquiannaul Functional Test of Unit 2 Second Level Undervoltage.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the probability is not impacted for the evaluated accident because this setting is for equipment that responds to the accident, not something that can cause the accident to occur. Since it is used for accident mitigation, it cannot increase the probability of the accident occurring. The accident response analysis based on the current calculations remains applicable. An increase in the consequences would require additional source term of radioactive inventories, additional fuel failures or other factors not affected by this relay setpoint. This change does not impact those factors.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the installation and method of operation of the time delay relay is not changed by the setpoint change. Therefore, the possibility of an accident or malfunction of a different type occurring has not changed. Because the design function and performance is not changed, the consequences of a malfunction of equipment important to safety will not be increased.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change incorporates allowance for instrument uncertainties. The margin to the EDG closure to the bus is not changed because the setpoint only accounts for existing uncertainties that needed to be accounted for in the setpoint. Due to this factor, the margin of safety is not reduced.

Tracking No. SS-H-99-0032
Activity No. DCPs 9900003; 9900004; UFSAR-97-R5-114; SE-99-005

DESCRIPTION:

The existing configuration for the low-pressure pump discharge alarm circuit is such that it alarms for any low discharge pressure condition as sensed by a pressure switch. This activity will modify the alarm logic for the Fuel Pool Cooling Water Pump for a low discharge pressure condition to alarm only when the pump is running. The design installs a pump breaker contact in series with the pressure switch contact in the alarm circuit. The same design change will be performed on each of the Unit 2 Fuel Pool Cooling Water Pumps. The effect is to allow the alarm to only function when an abnormal condition occurs and not to alarm when Operations turns the Fuel Pool Cooling Water Pump off. The UFSAR has been updated to revise the description of fuel pool cooling pump low discharge pressure alarm.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this change does not affect the initiating events of any accident in the UFSAR. Any new potential failures are already bounded by the existing design and do not result in a malfunction of equipment important to safety.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the operation of the fuel pool cooling water pump has not changed. The change to the alarm circuitry affects only the conditions that give the alarm. Any new types of failures will not result in a condition that has not already been analyzed.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications or safety functions are based. Therefore, there is no reduction in the margin of safety.

SS-H-99-0070
Activity No. DCP 9700028 Rev. 1; DCN 001480E-01

DESCRIPTION:

DCN 001480E-01 replaces and relocates the existing Penn pressure switch with an Static O-Ring (SOR) pressure switch and unloading solenoid valve for the 1-4609B air compressor of the Emergency Diesel Generator (EDG) air start system. A new, separate solenoid valve is required since the existing pressure switch contained a solenoid valve and this combination is now obsolete. The pressure switch functions to control volume (pressure) in the air receiver tanks by controlling the air compressors. It is the volume of air in the tanks that is used to start the EDG.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the new components perform the same function as the existing components and are considered more reliable. The replacement components associated with the safety-related pressure boundary and/or Safety-Related function are purchased and installed safety-related to ensure the pressure boundary of the air system is maintained. The solenoid valve is isolated from the pressure boundary and therefore, non-safety-related. The new pressure switch is tested to higher standards than the existing (original) switch. Also, the existing copper tubing is being replaced by stainless steel tubing which is considered an overall improvement due to increased strength. Thus, existing accident or malfunction scenarios are not increased by this activity.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the replacement components perform the same function and are considered more reliable than the existing components. No new system interfaces result from this activity. Therefore, new accident or malfunction scenarios are not created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because system parameters and technical specification parameters are not altered by the proposed component changes. The new components are considered more reliable than the existing components. Thus, margin of safety is not reduced by this activity.

Tracking No. SS-H-99-0082
Activity No. QCOP 2700-01 Rev. 9; SE-99-006

DESCRIPTION:

Allow use of the supplemental Air Injection line into the Oxygen Injection System as a bleed path into the Offgas System to minimize the effects (principally Hydrogen injection tripping) of excursions of Hydrogen concentration that occur in the Main Condenser vapor space during Circulating Water flow reversals.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this procedure revision does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the supplemental Air Injection System will not be operated in any way that is different in principle from its current state.

The difference as a result of the modification to the system is that the maximum flow is limited to 30 scfm, the automatic controls will not be used, and the system will be prevented from reverse flow by means of a spring loaded check valve. All of the changes to the system move its performance in a more conservative direction. These changes do not introduce any new flow paths, interactions, potential malfunctions or accidents that had not existed previously.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this revision does not serve as the basis for any Technical Specification.

Tracking No. SS-H-99-0087
Activity No. QCOP 2700-06 Rev. 1; SE-99-006

DESCRIPTION:

Indicate that the Air Flow Control Valve does not auto close upon a trip of the Hydrogen Water Chemistry System.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this procedure revision does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the supplemental Air Injection System will not be operated in any way that is different in principle from its current state. The difference as a result of the modification to the system is that the maximum flow is limited to 30 scfm, the automatic controls will not be used, and the system will be prevented from reverse flow by means of a spring loaded check valve. All of the changes to the system move its performance in a more conservative direction. These changes do not introduce any new flow paths, interactions, potential malfunctions or accidents that had not existed previously.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this revision does not serve as the basis for any Technical Specification.

Tracking No. SS-H-99-0088
Activity No. QCOP 2700-03 Rev. 3; SE-99-006

DESCRIPTION:

Isolate supplemental Air Injection upon Hydrogen Water Chemistry System shutdown as the Air Flow Control Valve does not auto close upon a trip of the Hydrogen Water Chemistry System.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this procedure revision does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the supplemental Air Injection System will not be operated in any way that is different in principle from its current state. The difference as a result of the modification to the system is that the maximum flow is limited to 30 scfm, the automatic controls will not be used, and the system will be prevented from reverse flow by means of a spring loaded check valve. All of the changes to the system move its performance in a more conservative direction. These changes do not introduce any new flow paths, interactions, potential malfunctions or accidents that had not existed previously.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this revision does not serve as the basis for any Technical Specification.

Tracking No. SS-H-99-0093
Activity No. QOM 1-1001-09 Rev. 5; QOM 1-1000-08 Rev. 3;
QOM 2-1000-08 Rev. 3; QOM 2-1000-09 Rev. 3; SE-98-049

DESCRIPTION:

These procedures are being revised to change the normal position of RHR Minimum Flow Valve MO 1(2)-1001-18A/B from closed to open.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the probability of occurrence and the consequences of an accident are not

increased because changing the minimum flow valve position does not initiate any accident and the minimum flow valve position does not affect any accident analysis.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the valve position change has no adverse impact on the RHR/ECCS systems, containment systems, or the reactor system to the extent of creating an accident or malfunction different from those evaluated in the SAR. There are no new interactions or functions created so there is no possibility of creating an accident or malfunction of a different type than already evaluated.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this change provides additional assurance of pump protection during certain accidents (Appendix R), thereby increasing the margin of safety, not reducing it.

Tracking No. SS-H-99-0098
Activity No. QCAN 901(2)-4 G-22 Rev. 4; SE-99-005

DESCRIPTION:

Indicate that the pump low discharge pressure alarm for the 2A Fuel Pool Pump requires the pump breaker to be closed.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the only change is to indicate which actions are required due to an abnormal condition. The actions to address the abnormal condition have not been altered.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the only change is to indicate which actions are required due to an abnormal condition. The actions to address the abnormal condition have not been altered.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0099
Activity No. QCAN 901(2)-4 H-22 Rev. 3; SE-99-005

DESCRIPTION:

Indicate that the pump low discharge pressure alarm for the 2B Fuel Pool Pump requires the pump breaker to be closed.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the only change is to indicate which actions are required due to an abnormal condition. The actions to address the abnormal condition have not been altered.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the only change is to indicate which actions are required due to an abnormal condition. The actions to address the abnormal condition have not been altered.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0101
Activity No. DCP 9700144; SE-99-067 Rev. 1

DESCRIPTION:

This document is an NSP-CC-3005 form 8.15 Validation of Previously Performed Evaluations and Screenings Form prepared for Design Change Package (DCP) 9700144 Addendum 2. The previously performed evaluation being validated is SE-97-067 Rev. 1, which was prepared for Addendum #1 to DCP 9700144.

Addendum #2 to DCP 9700144 only accomplishes the following:

1. Defines the final work scope of the design change.
2. Extends the qualification of the breakers modified with auxiliary switch mounting straps based on subsequent testing.
3. And implements required documentation to close the design change in accordance with current procedures.

No additional work or testing will be required as a result of the implementation of Addendum #2 to DCP 9700144.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the probability of occurrence or the consequences of an accident or a malfunction evaluated in SE-97-067 Rev. 1 will not change as a result of the implementation of Addendum #2 to DCP 9700144.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because Addendum #2 to DCP 9700144 only defines the final scope, extends the breaker qualification based on testing, and determines required documentation to close out the design change in accordance with current procedures. Therefore, the possibility for a new type of accident or malfunction has not been created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because neither the previous revision, nor Addendum #2 to DCP 9700144 affect any parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0114
Activity No. QCOP 6700-09 Rev. 6; QCOP 6700-20 Rev. 4;
QCOP 6700-29 Rev. 4; QOP 6700-08 Rev. 10; SE-98-098

DESCRIPTION:

Delete reference to a Unit 1/Unit 2 Emergency Diesel Generator fuel oil pump selector switch at Panel 2251-37.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the only action altered is the deletion of guidance for movement of a selector switch that is no longer in place; therefore, the action can not be performed. In addition, this does not alter the supply of fuel oil to the Emergency Diesel Generators; therefore, does not affect any equipment that is assumed to operate during an accident.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the referenced selector switch is no longer in place; therefore, the previously stated action can not be performed. No new actions are being added and no in place actions are being altered. Therefore, no accidents or malfunctions are impacted.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0118
Activity No. QCOS 2300-01, Rev. 26; SE-98-074

DESCRIPTION:

Have revised HPCI surveillance to allow either the Diesel Generator Cooling Water Pump (DGCWP) or Station Service Water supply the cooling water to the HPCI Room Cooler.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the Station Service Water System is non-safety-related and is not credited in any accident analysis. The installation of the extra check valve allows the use of Service Water to the room cooler. Both check valves close to prevent an unanalyzed flow path. The failure of both of these valves is not credible. This system is not relied upon during any accident analysis. The DGCWP provides the cooling to the room cooler during accident scenarios. All accident probabilities and consequences of each do not change.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the modification provides a single failure proof check valve configuration to preclude creation of an unanalyzed flowpath of DGCW to station service water. The service water supply will isolate when needed, the DGCW pump operation remains unaffected. Availability and reliability of the DGCW system or other ECCS systems will not be compromised. This change will not impact systems that could create the possibility of an accident of a type from those previously evaluated in the UFSAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the procedure revision is the result of the modification of installing a second check valve in the service water line to the HPCI Room Cooler. The DGCWP needs protection that has been provided because of the installation of the second check valve, to ensure no backflow of cooling water flow occurs into the service water system. Since both valves are installed in-line, the single failure of any active component of the service water system will not create any unanalyzed flowpath. Since the failure of both check valves is not credible, there is no reduction in the margin of safety.

Tracking No. SS-H-99-0119
Activity No. QCIS 1000-11; SE-99-004

DESCRIPTION:

Procedure Change to QCIS 1000-11, Rev. 4, "ECCS Discharge Lines High/Low Pressure Calibration and Functional Test" and later revisions to this procedure that incorporate this change for the later PS's as referenced below.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because for most accidents, RHR is used to mitigate accidents and cannot initiate them. For LOCA outside the primary containment, the new switches will provide the same function as the original switches. The switches will improve the system's performance in that the operator challenges from the nuisance alarms will be eliminated. The switches will be seismically mounted and procured safety-related. Since the new switches will be procured and installed to safety-related standards, the probability of leakage from the RHR discharge piping is reduced and the probability of an accident remains the same. The consequences remain the same for an accident or malfunction.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the new switches are constructed and will be installed in a similar manner as the existing switches. Their failure mechanisms are the same as before and since the switches perform an alarm function only, no other interactions with plant systems or equipment will be created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because these switches do not perform any functions required by Technical Specifications. The purpose of the switches is to alarm in the control room to alert the operator of possible leakage from the reactor vessel into RHR prior to the relief valve setpoints on the system. The new switches and their setpoint will continue to perform this function. The new setpoint is consistent with recommendations from General Electric and with the industry.

Tracking No. SS-H-99-0125
Activity No. Interim Procedure For QCOS 6600-20; SE-99-045

DESCRIPTION:

Revise performance of surveillance that satisfies the Emergency Diesel Generator (EDG) monthly load test to prevent the 1/2 Diesel Generator Cooling Water Pump (DGCWP), fuel oil pump and room vent fan from transferring to Bus 28 and to test run the 1/2 DGCWP on Bus 28 after the 1/2 DG is shutdown.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because this change does not affect the initiators of the subject accidents. It does not affect the probability of a malfunction because only the 1/2 DG is affected by the change and the 1/2 DG is already inoperable in this procedure. This change does not affect any release path and the consequences of any malfunction remain the same.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the change only affects the 1/2 DG, the 1/2 DG is already inoperable for the surveillance and all actions are independently verified.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this interim procedure continues to verify 1/2 DG operability and operability of its auxiliaries; therefore, no Technical Specification margins of safety are affected.

Tracking No. SS-H-99-0127
Activity No. QCOP 5750-16 Rev. 1

DESCRIPTION:

The Recirc MG Ventilation System operating procedure, QOP 5750-16 will be revised (Revision 0 to Revision 1) to provide the necessary operating instructions to place the temporary forced cooling system into operation, and return it to a standby condition when its' use is no longer required.

Background Information:

Temporary Modification to install a temporary Air Handling Unit (AHU) to provide temporary forced cooling. This AHU will be a portable unit that will be installed in parallel with the supply duct to deliver cool air to the Unit 2A Recirc MG motor ventilation supply ducts.

The AHU will receive power from the 13.8 KV Unstacking Xfrmr. Distribution system available on the Turbine main floor for construction and utility power. The AHU will take a portion of the supply air from the ventilation supply header up stream of the 2A Recirc MG drive motor (2-0202-51A). It is expected that the AHU will drain approximately 13 gal/hr of condensate during operation. During the summer months the Recirc MG set ventilation system takes in 100% outside air versus a recirculation mixture.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because a concern which provides an increased possibility of losing ventilation or of inadequate ventilation is in the event the AHU temporary supply ducting becomes disconnected or damaged. This concern only exists because of the additional lightweight ducting being routed in and around traffic areas. The modification will insure that this ducting and the connections are secure and rigidly fastened. Also, the duct will be properly supported and identified for plant personnel as risk significant temporary equipment. The complete disconnection of the temporary ducting at the normal supply will degrade the MG-set cooling significantly and could require a reduction in recirc flow and reactor power to ensure the MG-set stays adequately cooled. However, the temporary modification will ensure this connection is solid and not likely to become disconnected. Currently the same result could occur if the ventilation doors to the supply ducts were to be opened by personnel. Minor breaches of the temporary AHU chiller and ducting provide ample time for operations to detect the degraded cooling which may result. Failure of the AHU chiller unit will not affect the Motor-Generator adversely. Some air flows may be out of balance following a loss of the fan in the AHU. Again, this can be detected by operations by increased temperature readings or alarms.

   This temporary modification will not provide a condition, which realistically increases the probability of a rapid reduction of reactor coolant flow rate. This activity reduces the likelihood that the MG set will fail during hot weather. The Recirculation Motor-Generator and the supporting ventilation system do not provide any mitigation to the decrease of the Reactor Coolant Flow rate.

   There is no credit taken for this system to mitigate accidents. This temporary modification does not affect the consequences of any accident or transient.

   There is no direct malfunction of the Recirculation Pump Motor-Generator created. The design of the temporary modification will ensure the likelihood of a partial loss of cooling due to a system breach is insignificant. This also will ensure the potential for the spread of contamination is reduced. The equipment being installed will be installed so as not to impact equipment in the event of a fire or a seismic event by proper design and location of temporary equipment.

   Therefore, the probability of a malfunction of the Recirculation Pump Motor-Generator is not increased.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the Recirculation Pump Motor Generator is subject to a failure of the cooling provided by Recirculation Pump Motor-Generator Ventilation. This failure does not result in an immediate failure of the Recirculation Pump Motor-Generator but will require operator action to correct and/or compensate for the reduced cooling. This type of failure existed prior to this activity. There are alarms and indication in the control room for Recirculation M-G set temperatures.

Therefore, this malfunction has been previously evaluated and existing procedures will detect this condition.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the only relationship to the Technical Specifications concerning the Recirculation Pump MG units deals with pump speed limits. The speed involves the hydraulic scoop tube units and not the drive motor. The drive motor is a constant speed machine and also the ventilation for this machine does not affect the speed controls. Therefore, the margin of safety for parameters involving the Reactor Recirculation system flows are not affected.

Tracking No. SS-H-99-0129
Activity No. QCAN 901(2)-3 C-8, Rev. 7; SE-99-004

DESCRIPTION:

Have revised the annunciator procedure, Residual Heat Removal Discharge Header Hi/Lo Pressure to reflect modifications DCP 9900011 and 9900014.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the new switches provide the same function as the original switches. The new setpoint is in accordance with the original design standard. This will improve system performance as the alarm will not challenge the operators as previously. The new switches will be safety-related. This means that the new switches will perform their function in a manner that is equal to or exceeds that of the existing switches. The probability of occurrence or the consequences of an accident will not increase because of the new switch installation.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the new switches are installed as the original switches. The failure modes are the same. The setpoint change will make the alarm more reliable and eliminate erroneous alarms. The possibility of an accident or malfunction than previously evaluated in the UFSAR is not changing.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the pressure switches do not perform any functions as required by Technical Specifications. Therefore, the margin of safety is not affected.

Tracking No. SS-H-99-0130
Activity No. UFSAR-97-R5-116

DESCRIPTION:

The proposed activity is to change the Quad Cities Unit 1 and 2 Rod Block Monitor (RBM) upscale instrument trip setpoints. The change increases the current values. The changes allow the reactor core to be operated within its licensed power/flow map without unnecessary restrictions.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because raising the RBM setpoints to credit the conservatively analyzed unblocked Rod Withdrawal Error event for Q1C16/Q2C15 and updating the setpoints in the COLR accordingly will not affect the probability of the Rod Withdrawal Error (RWE) event. These changes do not increase the probability that the incorrect control rod would be selected for withdrawal. The RBM system itself is not affected by this change; therefore, the system that is designed to eventually inhibit withdrawal of the control rod and terminate the transient is assumed to function the same with revised setpoints as before these changes. Therefore, the probability of the RWE event will not be increased.

   The OLMCPR ensures that the MCPR Safety Limit is not violated. The off-site dose is not increased from the RWE event due to the change to raise the RBM setpoints since fuel failure is expected to occur. This is true since violation of the MCPR Safety Limit, 1% plastic strain, and fuel centerline melt are prevented by the MCPR and LHGR limits. Therefore, consequence of the RWE event are not increased due to these changes.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the change to raise the RBM setpoints to credit the conservatively analyzed unblocked Rod Withdrawal Error event for Q1C16/Q2C15 and updating the setpoints in the COLR accordingly will not adversely affect systems or plant equipment in a way that would create another type of accident or malfunction different than that evaluated in the UFSAR. The change to raise the RBM setpoints does not prevent any plant systems from adequately performing its functions, nor does it create the possibility of an accident different than those already evaluated in the UFSAR.

   Since operating limits have been established to protect the conservatively increased Safety Limit MCPR using previously approved methods and the results meet the basis for the thermal limits, there is no possibility to create an accident or malfunction of a type different from those evaluated in the SAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the proposed activity to change the RBM setpoints is within the currently analyzed and approved safety analysis. The MCPR Safety Limits were confirmed to be bounding for

Q1C16 and Q2C15. Operating Limit MCPRs that apply to GE9/10 fuel and ATRIUM-9B fuel are provided in the COLR to protect the MCPR safety limit. Therefore, there is no reduction in the margin of safety for MCPR, as appropriate operating limits for Q1C16 and Q2C15 will be applied.

Tracking No.SS-H-99-0133
Activity No. QCOA 4100-11, Rev. 8; SE-97-160

DESCRIPTION:

Have added a door closing device and a smoke detector that inputs into the XL-3 typer for monitoring fire protection equipment.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because as part of the EQ analysis, the MSIV room was evaluated with the MSIV room vent door closed. This evaluation concluded the normal operating room temperature would be 150 °F. If the door closes, the condition alarms in the control room so the operator can take actions to reestablish airflow to the room. All equipment in the MSIV room will operate as previously designed. Therefore, this change does not increase the probability or consequences of previously evaluated accidents.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the vent door will function as previously designed. The smoke detectors will alarm in the control room to alert the operator of smoke in the MSIV room. These modifications do not alter the function of any system within the MSIV room. Therefore, this change does not create the possibility of an accident of a type different from those previously evaluated in the UFSAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this change does not affect any parameters upon which Technical Specifications are based; therefore, there is no reduction in the margin of safety.

Tracking No. SS-H-99-0141
Activity No. QOA 3300-02 Rev. 18; SE-99-006

DESCRIPTION:

Direct isolation of flow through the supplemental Air Injection line when an abnormal condition occurs that could be affected by use of the air injection system.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this procedure revision does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the supplemental Air Injection System is not operated in any way that is different in principle from its current state. This change does not introduce any new flow paths, interactions, potential malfunctions or accidents that had not existed previously.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this revision does not serve as the basis for any Technical Specification, thus it does not affect margin of safety.

Tracking No. SS-H-99-0143
Activity No. QCOP 2700-01 Rev. 10; QCOP 2700-06 Rev. 2; SE-99-006

DESCRIPTION:

Change designation of the "X" parameter on the Unit 2 Oxygen Flow Controller to SPARE. This displays air/oxygen flow. Original installation allowed for adjustment of the air/oxygen flow control valve to obtain the desired air/oxygen flow. Implementation of DCP 980223 has a) resulted in reprogramming the oxygen controller to ignore the signal from the supplemental air injection system flow sensor and send a signal to the flow controller which will indicate flow in the air injection line, and b) resulted in isolation of the air injection flow control valve, since flow is controlled by the flow control bypass valve. This has resulted in the air flow signal to the controller to be of no valuable use in operation of the controller.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in this procedure revision does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the supplemental Air Injection System will not be operated in any way that is different in principle from its current state. This change does not introduce any new flow paths, interactions, potential malfunctions or accidents that had not existed previously.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change does not affect any parameters upon which Technical Specifications are based.

Tracking No. SS-H-99-0146
Activity No. QCOS 6600-01, Rev. 30

DESCRIPTION:

Revise Emergency Diesel Generator (EDG) Monthly Surveillance Test to prevent the 1/2 Diesel Generator Cooling Water Pump (DGCWP) from transferring to Bus 28, by placing the 1/2 DGCWP Power feed selector switch in the Bus 18 (odd months) or Bus 28 (even months) position. The LCO exit logging is identified as occurring after the selector switch is returned to the NORM position.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the scope of the procedure change is encompassed by the scope of IP #99-0028. The remainder of the procedure changes, associated with LCO logging and odd/even month testing are administrative in nature. This procedure change is bounded by SE-99-045, which was performed for IP #99-0028.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the 1/2 EDG is already inoperable for the surveillance.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this procedure continues to verify 1/2 EDG operability and 1/2 EDGCWP operability.

Tracking No. SS-H-99-0158
Activity No. NFM:BSA:99-076; UFSAR-97-R5-137

DESCRIPTION:

This evaluation is in support of a UFSAR change. This change reflects the revised LOCA assessments associated with the Unit 1 jet pump 7/8 riser repair and changes in the performance descriptions for the Core Spray and LPCI systems. The proper source documents for LOCA assessments and some typographical errors are also addressed.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the probability of an accident is derived from the probabilities of the precursors to the accident. Any cause of a rupture or split or the reactor recirculation suction pipe or other Nuclear Steam Supply System pipes coincident with Loss of Offsite Power is unaffected by the change to a revised LPCI and CS system performance description. The physical changes to add a repair clamp to the Unit 1 jet pump riser 7/8 was covered under a separate 10CFR 50.59 safety evaluation. The UFSAR revision has no physical changes to the LPCI and CS systems associated with it, nor does it affect the containment system, its related systems, nor does it affect the reactor pressure boundary, its related systems, or any function of any system or component other than the fuel.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because only the LPCI and CS system performance descriptions are being changed. The impact of these changes was analyzed using an NRC approved 10CFR50, Appendix K model. Because the results of this analysis stayed within the 10CFR50.46 acceptance criteria, it did not create the possibility of an accident or malfunction of a type different from those evaluated in the SAR. As the design basis physical configuration of the LPCI and CS SSCs and their functions at the station are not being changed, the proposed change will not adversely impact any system. Hence, the possibility of an accident or malfunction of another type different from those evaluated in the SAR is not created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the new LOCA analysis determines the ATRIUM-9B fuel and GE fuel operating within their associated MAPLHGR limits will not violate the 2200°F Peak Cladding Temperature limit, nor any of the other 10CFR50.46 acceptance criterion, the margin of safety is not reduced. The existing MAPLHGR limits for the GE fuel are still applicable for the GE fuel until such time that no GE fuel remains in the core.

Tracking No. SS-H-99-0185
Activity No. DCP 980223; UFSAR-97-R5-111; SS-H-99-0139; SE-99-006

DESCRIPTION:

The associated validation supercedes validation SS-H-99-0139 issued previously on DCP 980223. The purpose of the associated validation is to:

1. Affirm that the analysis and conclusions of SE-99-006 remain valid even though the maximum air inleakage rate as measured in the testing of the DCP was different from the assumed inleakage rate used in SE-99-006. The assumed maximum inleakage number was 30 scfm, while the measured maximum was 37.7 scfm.

2. Identify and provide justification for the differences between SE-99-006 and UFSAR-97-R5-111, specifically:

   a. The affected units as listed on SE-99-006 were Units 1 and 2, while in UFSAR-97-R5-111; the affected unit was Unit 2. This is because, when the planned Design Change was initially evaluated, it was expected that the same modification would be installed in both units, thus the safety evaluation was researched and written to apply to both units. Between the time of the safety analysis and the installation of the design change on Unit 2, other physical changes to the power plant (most notably, the installation of the Noble metals injection system in Unit 1 and the resultant lower Hydrogen injection rates) made installation of this DCP in Unit 1 unnecessary.

   b. As stated in paragraph 1 above, the design flow after this modification was to be 30 scfm while the measured actual was 37.7 scfm. The UFSAR change that was submitted was for 40 scfm. This was done simply to provide a margin above the measured so that is the measurement were repeated at some time in the future, a slight increase would not cause an out of compliance condition with the UFSAR. This 40 scfm value is still acceptable and bounded, as the original UFSAR flow for this line (and the current Unit 1 value) is for 100 scfm.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because the equipment involved in the modification as described by the UFSAR change does not participate in any previously analyzed accidents or transients.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because after the modification as described by the UFSAR change, the supplemental Air Injection System system will not operate in any way that is different in principle from its pre-modification

condition. (i.e. It will draw air from the Turbine Building and bleed it into the Offgas System upstream of the SJAE suction.) What will be different is that the maximum flow will be limited to 40 scfm, the automatic controls will not be used, and the system will be prevented from reverse flow by means of a spring loaded check valve. All of the changes to the system move its performance in a more conservative direction as compared to the prior to modification condition. (i.e. lower flows, passive means of preventing reverse flows, and elimination of automatic controls). Nothing in the changes introduces any flowpath, interaction, potential malfunction or accident that had not existed previously. Therefore, since the system operates in fundamentally the same way only with its behavior more tightly constrained as compared to the system as described prior to modification, malfunctions or accidents of a type not previously evaluated cannot be created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the equipment involved in this modification was determined not to serve as the basis for any Technical Specification; thus it cannot affect margin of safety.

Tracking No. SS-H-99-0186
Activity No. UFSAR-99-R6-005

DESCRIPTION:

SE-99-071 technically supports UFSAR Change Number UFSAR-99-R6-005 but does not tie it back to UFSAR Change number UFSAR-99-R6-005. This activity will make the tie between SE-99-071 and UFSAR Change Number UFSAR 99-R6-005.

SAFETY EVALUATION SUMMARY:

1. The probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased because:

    1. The components described in the proposed change are not connected to any accident initiators such as auxiliary power, reactor protection system, or reactor coolant system.
    2. These changes have not resulted in any physical changes, additions, deletions or alterations to any of the equipment.
    3. No program changes will be implemented as a result of clarifying UFSAR Table 6.2-7.
    4. The proposed changes adds clarifying information and does not affect the actual plant response to these accidents and therefore, does not increase the consequences of any accident or tansisent, as the plant will not be modified, and the leak testing program will continue to be performed as it has been in the past to ensure the valves perform their design function.

5. These changes have not resulted in any alteration to equipment failure mode or malfunction.

2. The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not created because the proposed changes add clarifying information and do not affect the equipment failure modes and, therefore, does not create the possibility of an accident or transient of a different type than previously evaluated. The plant will not be modified, and the leak testing program will continue to be performed as it has been in the past to ensure the valves perform their design function.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the margin of safety is not reduced and is maintained by limiting the leakage to less than 1.0 La through the Containment Leakage Testing Program.