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Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Braidwood Station Units 1 and 2
10 CFR 50.59 Summary Report
NRC Docket Nos. 50-456 and 50-457

Reference: June 15, 1993 letter, J.B. Hickman (NRC) to D.L. Farrar (ComEd), Commonwealth Edison Proposal for Updated Final Safety Analysis Report Revision Submittal Frequency (TAC Nos. M86432, M86457, M86458, M86459, M86460, M86461, M86462, M86463, M86464, M86465, M86466, and M86467)

Pursuant to the requirements of 10 CFR 50.59 (b)(2), Braidwood Station is submitting the enclosed report. This report covers the period from 6/19/92 through 6/18/94, and consists of descriptions and safety evaluation summaries for changes to the facility and procedures described in the safety analysis report. No tests or experiments governed by paragraph (a) of 10 CFR 50.59 were performed. This report does not include any changes to the fire protection program, as there have been no changes to features of the fire protection program not previously approved by the Commission during this period.

The subject report is being submitted coincident with the UFSAR and Fire Protection Report updates consistent with the provisions of 10 CFR 50.59 (b)(2). Updates to the UFSAR and Fire Protection Report will be submitted under separate cover. Note that the UFSAR and Fire Protection Report updates are currently submitted every 24 months in accordance with the provisions of 10 CFR 50.71(e)(4). In the referenced letter, the Staff agreed with Commonwealth Edison's proposal to provide updates to the NRC no later than 24 months from the submittal date of the previous revision.

Please direct any questions regarding this submittal to Douglas Huston, Braidwood Licensing Supervisor, (815)458-2801, extension 2511.

Very truly yours,

K.C. Kofron

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LSD/dla

Enclosure

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Braidwood Nuclear Power Station
10 CFR 50.59 Summary Report
6/19/92 through 6/18/94
NRC Docket Nos. 50-456 and 50-457
License Nos. NPF-72 and NPF-77

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II. PROCEDURE CHANGES

A. PROCEDURAL UFSAR CHANGES

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None

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MINOR PLANT CHANGE

P20-0-89-032

DESCRIPTION:

This minor plant change upgraded the Fire Protection (FP) system for Turbine Building office space by adding a sprinkler head in a closet space, a pressure switch on the water supply line, and an alarm located immediately outside the office area.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this minor plant change was an upgrade to the existing FP system. The upgrades are similar to the existing equipment.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new equipment and configuration are similar to the existing plant design.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the change did not degrade the fire protection/suppression system or affect its operability.

MINOR PLANT CHANGE

P20-2-90-021

DESCRIPTION:

This minor plant change replaced the Kerotest accumulator fill line valves (2SI8934A/B/C/D) with Anchor Darling valves, and all piping between each vessel nozzle and the replacement valve. This minor change was implemented due to problems associated with cracking of the fill lines. It was determined that cracking of the fill lines was due to vibration caused by back flow operation through the Kerotest valves. The replacement valves have no diaphragm and, therefore, no vibration is created. Additionally, valve 2SI8934B was relocated to preclude interferences associated with the new valve and the 90° elbows closest to each accumulator were replaced with 5D bends.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the replacement valves are qualified for use in the system. Replacement of the valves and piping allow operation of the accumulators as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because replacement of the valves and piping did not change the original design conditions and no new scenarios were created.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because replacement of the valves and piping precludes cracking of the fill lines.

MINOR PLANT CHANGE

P20-1/2-90-035

DESCRIPTION:

This minor plant change installed one hour rated fire protection wrap on diesel generator oil (DO) system lines routed in the redundant safe shutdown train fire areas. The minor plant change responded to NRC concerns that operability of the redundant diesel generator (DG) system may be compromised in the event of a fire in any of the affected areas. The one hour fire rating was required to support the regulatory criteria delineated in the Byron/Braidwood Fire Protection Report.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the fire wrap does not affect operation of the DG or DO systems. The addition of fire wrap only provides fire protection to DO lines. UFSAR analyses are not adversely affected by this change.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new system function or operation were introduced by installing a one hour fire barrier. No new failure modes were introduced. The fire wrap only provides added fire protection to DO lines.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because operation of the DO system as described in Technical Specifications 3.8.1.1 and 3.8.1.2 is not changed.

MINOR PLANT CHANGE

P20-1-91-012/P20-2-90-007

DESCRIPTION:

This minor plant change replaced the motor operators and valve yokes on valves 1/2CV8105 and 1/2CV8106 with larger operators. These valves are the containment isolation valves for the charging pumps. A gallery was raised to allow space for the larger operators. The larger operators increase the margin between the available stem thrust and the required stem thrust during an accident.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because increasing the thrust margin window improved the reliability of the valves. These valves are required to close on a Safeguards signal to ensure proper delivery of high head emergency core cooling system (ECCS) flow. The chemical and volume control (CV) system operation and performance remain unchanged, except for a small increase in stroke time. The valve stroke time continues to satisfy the Technical Specification stroke time requirement. No new system interactions were introduced. Weight changes and increased thrust forces were evaluated and found acceptable. The seismic design of the gallery was also reviewed and found acceptable.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the valves' functions remain unchanged. The valve stroke time was increased by a small but acceptable amount. Weight changes and increased thrust forces were evaluated and found acceptable. The seismic design of the gallery was also reviewed and found acceptable. No new failure modes were created.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the valve stroke time remains below the 10 second Technical Specification requirement.

MINOR PLANT CHANGE

P20-1-91-622

DESCRIPTION:

This minor plant change added a variable orifice to the bypass vent path line from the steam generator blowdown condenser to the main condenser. This minor plant change was installed to alleviate cavitation problems with the steam generator blowdown hotwell pumps by limiting the impact of the main condenser vacuum on the pressure in the blowdown condenser.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this minor plant change improves the operation of the steam generator blowdown (SD) system. Furthermore, safety related equipment is not impacted.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the addition of a variable orifice does not change the operation of the SD system as described in the UFSAR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the only components of the SD system addressed in the Technical Specifications are the SD containment isolation valves. The addition of the variable orifice does not impact the operability of the SD containment isolation valves in any way.

MINOR PLANT CHANGE

P20-1/2-91-641

DESCRIPTION:

This minor plant change added a test switch as a point of isolation in the wiring between the Fire Detection Control Cabinet (1/2PA39J) and the Halon Control Panels (0FP01J and 0FP04J) for each zone of the Upper Cable Spreading rooms. The new switch provides a means by which each zone can be removed from service for maintenance and testing. This minor plant change was implemented to reduce the potential for inadvertent Halon actuation, reduce the wear and tear on equipment and wiring, and to provide flexibility in removing separate zones from service without lifting leads.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this minor plant change does not affect any safety related systems. The change simplified testing and maintenance, reduced inadvertent Halon actuation, and reduced equipment wear and tear.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this minor plant change added test switches in regulatory related Fire Protection panels to facilitate testing and maintenance. A foundation load analysis was performed for the increased load due to the test switch and the results were found acceptable. The change does not degrade the intended function of the associated fire detection zone. The isolation point is located in locked fire protection cabinets, 1/2PA39J, in a supervised section of wiring; such that, opening of the circuit results in a trouble alarm generated at panel 1/2PM09J in the main control room.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the modification does not affect the Fire Protection program or Fire Protection implementation procedures disscussed in Section 6 of the Technical Specifications.

MINOR PLANT CHANGE

P20-0-92-615

DESCRIPTION:

This minor plant change cut two notches in the concrete walls of the Radwaste building to facilitate storage of processed radwaste in larger sized liners (containers), in addition to 55-gallon drums. This upgrade was necessary because of the closing of three national burial sites and the unavailability of other sites.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because no active plant equipment was added or affected by this minor plant change and there is no interaction with any safety related equipment or systems.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no active plant equipment was added or modified by this minor plant change. All applicable loads have been considered in the design for existing structures.

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

MINOR PLANT CHANGE

P20-0-92-616

DESCRIPTION:

This minor plant change upgraded the radwaste crane capacity from 7.5 tons to 9.3 tons, relocated the speed control and the cable take-up boxes, lighting and surveillance cameras. This minor plant change facilitates storage of processed radwaste on site using the much larger liners (containers), in addition to 55-gallon drums. This upgrade was necessary because of the closing of three national burial sites and the unavailability of other sites.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because the crane and all supporting structures have been evaluated and qualified for the additional loads of the crane. The design methodology is consistent with existing design and, therefore, precludes any failure. Furthermore, no active plant equipment was added or affected by this minor plant change. There is no interaction with any safety related equipment or system.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no active plant equipment was added or modified by this minor plant change. All applicable loads were considered in the design and are consistent with the design of existing structures.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this change does not impact any sections of the Technical Specifications.

MINOR PLANT CHANGE

P20-0-92-663

DESCRIPTION:

This minor plant change installed vent lines and six isolation valves for the Carbon Dioxide odorizer cannisters and headers. The purpose of this change was to provide a safe bleed-off path in support of odorizer cannister maintenance and Carbon Dioxide Puff testing.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this minor plant change does not impact any safety related equipment. Furthermore, the intended function of the Carbon Dioxide system is not impacted.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the addition of the valves and vent lines to the Carbon Dioxide headers does not introduce any adverse interactions. This minor plant change does not affect the design basis of any system, structure or component.

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

MINOR PLANT CHANGE

P20-1-92-618

DESCRIPTION:

This minor plant change replaced motor operated valve 1CC685, reactor coolant pump (RCP) thermal barrier return isolation valve. The valve and operator were replaced to increase the margin between available operator thrust and the required thrust during worst case conditions, thereby, improving the reliability of the valve. The replacement valve is smaller and requires less thrust to close under design differential pressure conditions. The new motor operator is larger and provides more thrust capability.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this minor plant change improves the reliability of valve 1CC685. The component cooling (CC) flow to or from the RCP thermal barrier is not adversely affected by the installation of a smaller valve. No other safety equipment or barrier to radioactive release is affected.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the valve and plant operations remain unchanged. The new valve and operator continue to satisfy the Technical Specification stroke time requirement.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the replacement valve 1CC685 does not affect any parameters upon which Technical Specifications are based. The operation of the CC system as described in the Technical Specifications is not changed and the Technical Specification 10 second stroke time requirement continues to be met.

MINOR PLANT CHANGE

P20-1-92-671

DESCRIPTION:

This minor plant change installed Kolltronic EMI-Shielded Package Blowers in panels 1PA02J, 1PA03J, 1PA04J, 1PA05J, 1PA06J, 1PA07J, 1PA08J, 1PA20JA, 1PA20JB, 1PA33J and 1PA34J. These panels were previously cooled by convection air flow only. The installation of the blowers allows forced air circulation within the panels. This forced air circulation should reduce internal panel temperatures, which should reduce circuit card failures attributed to excessive temperatures.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because the addition of cooling fans to the affected instrument and control (I&C) panels did not alter any system functions, assumptions or initial conditions in the UFSAR. The fan assemblies are not important to safety and the postulated failure modes of the fan assemblies will not result in the subsequent failure of any other components located within affected I&C panels.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this change does not alter any initial conditions, failure mode effects or assumptions described in any UFSAR accident or transient analyses.

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.

MINOR PLANT CHANGE

P20-1-93-600

DESCRIPTION:

This minor plant change installed new gears in the Limitorque operators for valves 1RH8716A and 1RH8716B to increase the margin between operator thrust capability and the required thrust under worst case conditions. Valves 1RH8716A/B are open during normal operations and there are no interlocks or automatic signals associated with these valves. Upon receipt of the refueling water storage tank (RWST) auto switchover level signal, these valves are closed to complete the switchover from cold leg injection to cold leg recirculation. Valve 1RH8716A is later opened to complete the switchover from cold leg recirculation to hot leg recirculation.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because this change improves the reliability of valve 1RH8716A/B performance by increasing the margin between operator thrust capability and the required thrust during worst case conditions. The function of these valves or the RH system to mitigate the consequences of an accident is not changed. No other safety component or system is affected.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the slight increase in stroke time will have no adverse impact on the safety function of these valves. No new failure modes are introduced.

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 the Technical Specifications are based. Residual heat removal system requirements during various modes of operation are defined in the Technical Specifications. However, none of these requirements are affected by the gear ratio change.

MODIFICATION

M20-0-87-061

DESCRIPTION:

This modification deleted the chlorine detection feature of the Technical Support Center HVAC system by abandoning in place the outside air chlorine detector and appurtenances, and providing a handswitch at control panel 0VV07J to allow manual system isolation. This modification eliminated spurious detector actuation while providing for normal ventilation system operation; including operation in the recirculation mode, if required, due to a high concentration of chlorine in the outside air.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because the capability to isolate the outside air intake to the Technical Support Center, in the event of high chlorine concentration, is maintained by use of the control switch at control panel 0VV07J.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this modification does not introduce any new failure modes that impact the ability of the affected HVAC system to provide adequate Technical Support Center ventilation.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the Technical Support Center HVAC system is not specifically addressed in the Technical Specifications.

MODIFICATION

M20-1-88-058/M20-2-88-059

DESCRIPTION:

This modification revised the feedwater (FW) automatic water hammer prevention system logic by replacing the low flow initiated, automatic control of the feedwater isolation valves (FWIV) with low flow alarms and manual action.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this modification replaced automatic action with low flow alarms and manual action. The automatic protection signals on low steam generator pressure and low level to minimize feedwater hammering and possible tube rupture were not affected by this modification.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this modification retained the safety function for closing the FWIV and isolating feedwater from auxiliary feedwater (AF).

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this modification altered only the interlock signal which originates in the FW water hammer prevention system and retained the Engineered Safety Feature (ESF) isolation signal. This resulted in the same margin of safety for initiating and maintaining isolation to the FW system for the affected valves. The system margin of safety is also dependent on the closing of a backup valve for a failed valve. There was no change to this margin of safety because the modification involved only the FWIVs and did not alter FW system backup valves.

MODIFICATION

M20-1-88-078/M20-2-88-081

DESCRIPTION:

This modification installed a time delay relay in a main control room alarm circuit. The former system gave immediate alarms upon opening a door in the Cable Spreading Rooms. This created a nuisance alarm since the spreading room doors are used on a regular basis.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this modification does not affect any equipment important to safety.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this modification does not affect any safety related equipment or systems. Failure of the modified system cannot affect any system or component required for safe shutdown of the plant.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the Technical Specifications do not address operation of the Annunciator or Fire Protection systems, nor do they address alarming of the Cable Spreading Room doors.

MODIFICATION

M20-1-89-013

DESCRIPTION:

This modification abandoned in place certain Radwaste Building high-low drum area product of combustion (POC) detectors by disconnecting them from the detection loop. Accessibility is difficult and there are safety and exposure concerns associated with the semi-annual surveillance testing of the associated detection loop.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this modification does not alter any system parameters necessary to mitigate accidents.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the abandonment of certain detectors above the high-low drum area does not impair the function of the remaining loop detectors.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this modification has no impact on the Braidwood Fire Protection Program referenced in Technical Specification 6.8.1.g. The detection function of the remaining POC detectors in the associated loop are not impacted by this modification.

MODIFICATION

M20-1-89-034

DESCRIPTION:

The primary purpose of this modification was to provide for use of both the upper and lower steam generator blowdown (SD) lines rather than just the lower lines for blowdown. This change was required due to erosion/corrosion concerns associated with the lower lines. The upper blowdown containment isolation and flow control valves were modified to accept high energy line break (HELB) interlocks. This modification also provided input to the plant computer from existing flow instruments to monitor upper blowdown flow for thermal performance and chemistry records.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because the modification does not affect the function of the SD system. The HELB protection scheme used for the upper SD lines is similar to the lower SD line protection scheme which is designed to accomodate a single active failure. Should a HELB occur, the affected safety related equipment is environmentally qualified to endure a harsh environment, as previously analyzed.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the lower SD lines have been evaluated for possible HELB locations. The HELB analysis addresses the affected areas which includes the lower SD lines. The addition of interlocks to the upper SD blowdown valves designed to meet single active failure criteria allows the use of both the upper and lower SD lines for blowdown. The total amount of blowdown is not increased.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the function of the SD system was not changed by this modification. The SD blowdown valves are listed as containment isolation valves in Table 3.6-1 of the Technical Specifications. However, the stroke time of the SD blowdown valves was not affected by this modification. The HELB isolation provided for the upper SD lines is similar to the design currently provided for the lower SD lines.

MODIFICATION

M20-1-90-003/M20-2-90-004

DESCRIPTION:

This modification provided an alternate flow path for the discharge of the essential service water (SX) sump pumps to the auxiliary building floor drain system. The SX sump discharge is normally routed to the turbine building floor drain system. This modification allows local manual operator action to be taken to route the discharge of the SX sump to the auxiliary building floor drain system upon anticipation or detection of contamination in the SX sump. This reduces the chance of contaminating the turbine building floor drain system.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this modification does not impact any safety related systems. The piping has been seismically qualified and no interaction exists with adjacent components. A flood analysis was performed to evaluate a new flood path created by this modification.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this modification does not impact any safety related systems. The piping has been seismically qualified and no interaction exists with adjacent components. A flood analysis was performed to evaluate a new flood path created by this modification.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this modification does not impact any safety related systems. The piping has been seismically qualified and no interaction exists with adjacent components. A flood analysis was performed to evaluate a new flood path created by this modification.

MODIFICATION

M20-1/2-91-007

DESCRIPTION:

This modification installed replacement Steam Generator Blowdown (SD) prefilters. The original SD prefilters were sized for normal Unit blowdown flow rates of 60 gpm. Due to tighter restrictions on secondary side water chemistry, SD blowdown flow rates were increased; however, not in excess of the maximum specified value of 360 gpm per Unit in the UFSAR. A consequence of increasing the SD blowdown flow rates was premature plugging of the SD prefilters. The cartridges were removed from the original blowdown prefilters and remain part of the SD flowpath. The replacement SD prefilters were installed in parallel.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because this modification does not impact the operating characteristics of the SD system or other related Main Steam or Radwaste Demineralizer equipment. This design change does not affect any equipment important to plant safety.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this modification does not alter the steam system piping failure accident scenario or the steam generator tube rupture scenario described in the UFSAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this modification does not impact the margin of safety or operability requirements of the Steam Generator Blowdown or Radwaste Demineralizer systems. The SD prefilter section of the SD system is not addressed in the Technical Specifications.

MODIFICATION

M20-1/2-91-014

DESCRIPTION:

This modification replaced the 125 VDC distribution panel circuit breakers with two Class 1E fuses in series per polarity. The new equipment was installed in the same panels as the circuit breakers that were replaced. This modification changed the type of interrupting device being used. The fuse installation eliminated the requirement to test breakers used as isolation devices every five years.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR is not increased because there were no changes that affected primary system piping or safety related DC power sources. The new equipment was installed in the same panels as the cicuit breakers that were replaced. This modification changed the type of interrupting device being used. The fuses perform the same function and have the same failure mode as the original breakers. That is, during an overcurrent condition, the non-1E loads are disconnected and isolated from the 1E bus.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the new fuses perform the same function and have the same failure mode as the original breakers. Failure of a fuse would result in the loss of one non-safety related 125 VDC division. This event has already been evaluated in the UFSAR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the new fuses perform the same function and effect no changes to system operation.

MODIFICATION

M20-1/2-91-027

DESCRIPTION:

This modification replaced the existing second level undervoltage protection relays for the 4KV safety related buses with tighter tolerance relays.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the replacement relays provide the same function as the previously installed relays but with greater accuracy.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the replacement relays are similar in form, fit and function to the previous relays. The new relay installation did not reduce diversity, function or redundancy.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because installation of the new relays did not change any parameters used to establish Technical Specification limits.

SETPOINT/SCALING CHANGE

SSCR 88-068

DESCRIPTION:

This SSCR changed the High Differential Pressure (dP) trip setpoint and the High Differential Pressure Alarm for the Main Control Room Supply Fan, 0VC01CB. The original setpoint was much higher, 11.0 inches water column, and would allow the fan to operate in the unstable portion of the fan curve causing damage to the fan.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. The operation of the Control Room HVAC system supply fans and system was enhanced by this SSCR. The Control Room Ventilation system (VC) continues to perform as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this change does not affect the VC system as currently described in the UFSAR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this change does not affect the VC system as currently described in the UFSAR. The Technical Specification or its bases are not affected by this SSCR.

SETPOINT/SCALING CHANGE

SSCR 90-015

DESCRIPTION:

This SSCR raised the High Differential Pressure Alarm setpoint for the Cable Spreading Room filter, 1(2)PDS-VX016. The current setpoint of 1.0 inch water column was lower than the normal differential pressure (dP) with clean filters, 1.2 inches water column. The higher setpoint allows for a more accurate indication of filter status and eliminated the nuisance alarm caused by the previous setpoint.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. The setpoint change allows the Switchgear Room HVAC system (VX) to properly detect a dirty filter by sensing a high dP. The VX system continues to operate as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the setpoint change allows the VX system to properly detect a dirty filter, by sensing a high dP, and to perform as described in the UFSAR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the setpoint change allows the VX system to accurately detect a dirty air filter and provide an alarm to alert operators of this condition. The VX system continues to perform as described in the UFSAR. The VX system is used to maintain various area temperatures, e.g., the cable spreading room, within Technical Specification limits. The filter dP and alarm are used to determine the status of the VX system. The dP indication and alarm are not in the Technical Specifications or the bases.

SETPOINT/SCALING CHANGE

SSCR 90-028

DESCRIPTION:

This SSCR changed the Essential Service Water (SX) Pump Lube Oil System Relief valve setpoint from a range of 7.5 to 9.5 PSIG to a range of 10.5 to 12.5 PSIG. This change allows the lube oil system to operate as designed. This setpoint change is applicable to all four SX pump lubricating systems.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the SX pumps will start and run regardless of the relief valve setpoint.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the SX pump safety function is not impacted by the relief valve setting.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the safety function of the SX Pumps is not changed.

SETPOINT/SCALING CHANGE

SSCR 90-034

DESCRIPTION:

This SSCR changed the setpoints for the Low Alarm and Purge Permissive Flow Switches, 1(2)FSH-FW245B, FW246B, FW247B, and FW248B in the feedwater isolation bypass valve loops for all four steam generators. The setpoint change was necessary because normal flow was too close to the original setpoint. The function of the purge loop is to prevent water hammer in the steam generator preheater section. The reduction in purge flow is relatively small and does not have an affect on the purge effectiveness in preventing steam generator preheater section water hammer.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the reduction in purge flow is relatively small and does not have an affect on the purge effectiveness in preventing steam generator water hammer.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the purge loop is to prevent water hammer in the steam generator preheater section. The only accident that may be created by water hammer is a steam generator tube rupture and this accident has already been analyzed.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this setpoint change does not involve changes to systems, subsystems, or components required for safe shutdown as described in the Technical Specifications or bases.

SETPOINT/SCALING CHANGE

SSCR 91-002

DESCRIPTION:

This SSCR changed the Main Feedwater Pumps, B/C, Standby Oil Pump Auto Start on Low Oil Pressure setpoint to provide additional time for the standby oil pump to pressurize, when required, without tripping the respective feedwater pump. This SSCR is applicable to both units and both standby oil pumps.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. The reliability of systems required for safe shutdown as described in the UFSAR is not affected by this SSCR, since no functional changes are required. The oil system for these pumps was made more reliable by this SSCR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no functional changes were made to the Feedwater system as described in the UFSAR. The oil system for these pumps was made more reliable by this SSCR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because no changes were made to the Feedwater system as described in the Technical Specification or the bases. The oil system for Main Feedwater pumps was made more reliable by this SSCR.

SETPOINT/SCALING CHANGE

SSCR 91-012

DESCRIPTION:

This SSCR changed the Unit 2 Diesel Oil Storage Tank Level instrumentation air flow rotometer low flow setpoint from 1 SFCH to 2.5 SCFH. The 1 SCFH setpoint is the minimum air flow required for the level detector. Raising the air flow setpoint to 2.5 SCFH will warn the operator in advance of the air flow reaching the minumum.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added or changed. Loss of Diesel Oil Storage Tank Level indication does not cause a failure of the Diesel Oil system, but only results in loss of the ability to monitor tank level as required by Technical Specifications. Raising the rotometer setpoint warns operators in advance of a loss of indication and increases the reliability of the instrumentation.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because loss of diesel fuel storage tank level indication is not an analyzed accident or a precursor to an accident.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the required tank level is not determined or affected by level indication. The Technical Specifications require a specified volume of fuel oil in the Diesel Oil Storage Tanks for each diesel to be considered operable and requires verifying the level periodically. Raising the setpoint of the level instrumentation rotometer improves tank level indication reliability without adversely effecting tank level accuracy.

SETPOINT/SCALING CHANGE

SSCR 91-029

DESCRIPTION:

This SSCR changed the setting of the Vent Header Pressure Switch reset to allow automatic operation of the Waste Gas Compressors. The previous setpoint, reset value, was too close to the actuate setpoint which resulted in the compressors cycling continuously.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. This SSCR allows the Waste Gas Compressors to operate automatically as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this switch is not described in the UFSAR, only the automatic operation of the Waste Gas Compressors is described.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this switch is not listed in the Technical Specifications or any bases.

SETPOINT/SCALING CHANGE

SSCR 92-002

DESCRIPTION:

This SSCR restored the Low Pressurizer Pressure Safety Injection (SI) bistable setpoint to the original value of 1829 PSIG from a temporary conservative value of 1850 PSIG as requested in SSCR 90-037. The initial change, SSCR 90-037, was made due to concerns with the Westinghouse Setpoint Methodology. These concerns were resolved and the temporary conservative bistable setpoint (1850 PSIG) was returned to the original setpoint value of 1829 PSIG.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the setpoint was restored to the original value that is analyzed in the UFSAR. This setpoint was changed in the conservative direction by SSCR 90-037 until the correct setpoint could be determined.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this SSCR restores the previously analyzed value for the Low Pressurizer Pressure Safety Injection bistable.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the margin as evaluated in the Technical Specifications, or the associated Bases, is not changed.

SETPOINT/SCALING CHANGE

SSCR 92-003

DESCRIPTION:

This SSCR changed the scaling of the Condensate Storage Tank (CST) level loop to match the actual lank level. Additionally, this SSCR changed the CST Low Level Alarm from 40.0% to 65.0%. Maintaining the CST level above 60% ensures an adequate supply of clean water is available to the Auxiliary Feedwater (AF) system. It also ensures that the suction source of water to the AF Pumps will not be falsely switched to the Essential Service Water (SX) system when both AF pumps start simultaneously. Starting both pumps simultaneously creates a suction pressure transient that can cause an automatic switchover. This automatic switchover is controlled by other instrumentation connected to the pump suction piping. However, raising the CST level precludes a false automatic switchover.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. The rescaling matches indication to the actual tank dimensions. The revised CST Low Level Alarm alerts operators earlier of a decreasing level. The function of the CST and alarms are not changed as currently described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because CST level indication and alarm are non-safety related and are not accident initiators or precursors.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the changes increased the volume of water available to the AF system to mitigate an accident. This in effect increased the margin above that required in the Technical Specifications.

SETPOINT/SCALING CHANGE

SSCR 92-011 and SSCR 92-024

DESCRIPTION:

These SSCRs were initiated as 'Temporary' SSCRs to eliminate the Main Control Room (MCR) annunciator for the Reactor Coolant Pump 2A Seal Leak Off Flow High, thereby maintaining the 'dark board' concept for the MCR. Braidwood Station determined that the 2A Reactor Coolant Pump had a 'cocked' seal that caused a higher seal leak off flow than normal resulting in a nuisance alarm. SSCR 92-011 raised the setpoint from 4.8 GPM to 5.5 GPM; however, the alarm still occurred, though less frequently. SSCR 92-024 raised the setpoint to 6.0 GPM eliminating the nuisance alarm. In June, 1993 the 'cocked' seal was repaired and the setpoint was returned to 4.8 GPM.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added. This SSCR only raised the annunciator alarm setpoint due to the seal being cocked. Failure of the Reactor Coolant Pump seal(s) is an analyzed event that is unchanged by these SSCRs. The alarm was returned to the original setpoint following seal repair.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new equipment was added. These SSCRs do not affect the current UFSAR analysis.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because these SSCRs do not affect any Technical Specification or its associated basis. The alarm setpoint was changed to eliminate the nuisance alarm in the MCR due to the cocked seal until the seal could be repaired.

SETPOINT/SCALING CHANGE

SSCR 92-013

DESCRIPTION:

This SSCR temporarily changed the High Differential Pressure switch fan trips for the Miscellaneous Electrical Equipment Rooms (MEER), fan 1VE01C and 2VE01C. When the recirculation damper closes and the supply damper opens, a pressure transient is created that causes the fans to trip. This SSCR was removed after a minor plant change was implemented adding a time delay relay to the fan trip circuitry. The addition of this time delay relay eliminated the spurious fan trips.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this setpoint change raised the trip setpoint to a value that was still below the fan upper system safety limit. The function of the MEER fans, 1(2)VE01 is not changed and they will continue to perform as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new equipment was added or changed. The equipment evaluated or analyzed in the UFSAR is unchanged.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because no new equipment was added or changed. No Technical Specifications address the MEER fans; however, the fans are required to maintain the MEER temperature limits. This temporary SSCR does not affect the ventilation system or its ability to meet the Technical Specification requirements.

SETPOINT/SCALING CHANGE

SSCR 92-023

DESCRIPTION:

This SSCR raised the setpoint for the Miscellaneous Electrical Equipment Room (MEER) ambient Low Temperature Alarm from 40°F to 60°F. This will alert operators to a possible low temperature condition in the Engineered Safety Features (ESF) Battery Room which could result in battery electrolyte temperature below the Technical Specification limit.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no equipment was changed or added. This change alerts the operators earlier of an incipient low temperature which could impact battery operability.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new or different equipment was added. The evaluation of existing equipment is still applicable.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the alarm setpoint is not in the Technical Specifications.

SETPOINT/SCALING CHANGE

SSCR 92-031

DESCRIPTION:

This SSCR lowered the Residual Heat Removal Suction Relief Valve setpoint to ensure that the annunciator alarms prior to the relief valve lifting. This enables the operator to respond to a reactor coolant system (RCS) pressure increase before the relief valve lifts.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no equipment was added. The alarm only provides the operator with information about RCS pressure, prior to the relief valve lifting. No protective function is performed by this alarm. The circuitry associated with this alarm continues to perform as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no equipment was added. The operation and previous analysis of the associated circuitry is not affected by this SSCR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this SSCR does not affect any Technical Specification or its associated bases. The alarm setpoint was changed for the purpose of alerting the operator of an RCS pressure increase prior to the relief valve lifting.

SETPOINT/SCALING CHANGE

SSCR 93-002

DESCRIPTION:

This SSCR changed the start/stop setpoint for the Diesel Generator Starting Air, Air Compressors for both Unit 1 and Unit 2. This change was in response to the high failure rate of these air compressors.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no equipment was changed. Only the setpoints were changed to increase the reliability of these compressors. The compressors continue to perform as described in the UFSAR.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no equipment was changed or added. The compressors continue to perform as described in the UFSAR.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the starting air compressors continue to perform as described in the UFSAR and as required by the Technical Specifications. Only the start/stop setpoint for the compressors was changed.

SETPOINT/SCALING CHANGE

SSCR 93-008

DESCRIPTION:

This SSCR lowered the setpoints of 0PDS-VA105, VA115, VA125, and VA135. These switches provide Auxiliary Building Supply Fan Low Differential Pressure Alarms for the 0VA01CA, 0VA01CB, 0VA01CC, and 0VA01CD, respectively. The differential pressure developed across each fan during single fan operation was not high enough to reset this alarm and resulted in nuisance alarms in the Main Control Room. This SSCR eliminated these nuisance alarms.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this SSCR did not change the function or operation of the Auxiliary Building Fans. Only the nuisance alarms in the Main Control Room were eliminated.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no equipment was changed or added.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the alarms provided by these switches are not described in the Technical Specifications. The alarms provided by these switches are used to indicate the status of the fans, which are used for operator information.

SETPOINT/SCALING CHANGE

SSCR 93-011

DESCRIPTION:

This SSCR raised the High Delta Pressure (dP) Trip setpoint for the Diesel Ventilation Supply Fan, 2VD01CB, to the 2B Diesel Generator Room. The setpoint was increased from 4.6 inches water column to 5.0 inches water column.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this SSCR permits proper operation of the Diesel Ventilation Supply Fan, 2VD01CB, to the 2B Diesel Generator Room. The fan had been operating near its setpoint and often tripping. The switch operation is not changed and, therefore, the probability of switch failure does not affect the consequences of any accident previously evaluated.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new equipment was added. Only the setpoint of the switch was changed. Also, there is adequate margin between this setpoint and the safety limit for the fan (7.3 inches water column).

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this SSCR allows operation of the fan as currently analyzed. The margin of safety associated with this switch is not described in the Technical Specifications.

SETPOINT/SCALING CHANGE

SSCR 93-013

DESCRIPTION:

This SSCR raised the Post LOCA Hydrogen Monitor Low Sample Return Flow Alarm setpoint for Unit 1 and Unit 2. The setpoint for the four affected switches was difficult to maintain and required frequent adjustment. Increasing the setpoint in the conservative direction allows the switches to perform their intended function more reliably.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because no new equipment was added and the switch setpoints were raised in the conservative direction. There is no affect on the consequences of any accident.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because no new equipment was added, the change was in the conservative direction, and the switches only provide an alarm function.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this SSCR changes the setpoints in the conservative direction, thereby increasing any existing margin.

TEMPORARY ALTERATION

92-0-034 and 92-0-035

DESCRIPTION:

This temporary alteration was installed to ensure that the Control Room Chillers 0WO01CA and 0WO01CB remain running if an Safety Injection (SI) signal occurs while a chiller is running. The temporary alteration utilizes existing contacts on the 4TR timing relay of the chiller control circuit to allow the chillers to remain running. If an Engineered Safety Feature (ESF) Bus undervoltage condition occurs, the chiller breaker will still trip ensuring that the diesel generator will not be overloaded when it starts.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this temporary alteration allows the Control Room Chillers to remain in operation during an SI as per the original design intent. Additionally, the temporary alteration eliminates a possible trip of a Control Room Chiller.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this temporary alteration allows the Control Room Chillers to operate as intended when an SI signal is received.

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

TEMPORARY ALTERATION

93-1-018 and 93-2-025

DESCRIPTION:

This temporary alteration revised the existing Auxiliary Feedwater (AF) circuitry associated with the auto transfer from the Condensate Storage Tank (CST) to the Essential Service Water (SX) system as a source of water. The previous configuration interlocked both the auto transfer from the CST and the motor driven AF pump trip on lo-lo pump suction pressure with the pump feed breaker. The pump trips on lo-lo suction pressure after 2.5 seconds (the AF1AX1 timer performs this function). The auto transfer from the CST to SX is initiated on lo pump suction pressure after 4.0 seconds. (the AF1AX2 timer performs this function). Consequently, if the AF pump tripped prior to AF1AX2 timing out the auto switchover would have been prevented. This temporary alteration separates the AF1AX1 and AF1AX2 timers such that the AF pump will trip on lo-lo suction pressure after 2.5 seconds from pump start and the auto switchover will occur on lo suction pressure 4.0 seconds after the motor-driven AF pump is given the auto start signal.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because this temporary alteration increases the reliability of the motor-driven AF pump by ensuring positive SX switchover during a Loss of Offsite Power. The accident scenarios are not affected by this change.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this temporary alteration increases the reliability of the motor-driven AF pump.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because this temporary alteration has no impact on the requirements or bases of the Technical Specifications.

TEMPORARY ALTERATION

94-0-009 through 94-0-016

DESCRIPTION:

This temporary alteration installed a mechanical stop on the Main Control Room HVAC dampers (0VC02Y, 0VC04Y, 0VC16Y, 0VC18Y, 0VC20Y, 0VC281Y, 0VC312Y, and 0VC313Y). The Main Control Room HVAC dampers are opened and closed via a hydraulic actuator. The actuator is supplied with a battery backup to place the dampers in their safe position (closed), should a loss of AC power occur. A number of these batteries were found to have voltages less than that required to close the dampers. Therefore, the dampers were closed via AC power and maintained in the safe position with the mechanical stops. The damper positions are consistent with those of the Control Room Emergency Makeup mode of operation, the operating mode of the VC system which ensures control room habitability following an accident. In the event of a loss of power, the mechanical stops will maintain the proper torque on the damper shaft to provide an adequate seal, ensuring control room habitability.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the consequences of an accident, or a malfunction of equipment important to safety, as previously evaluated in the UFSAR, is not increased because the damper positions are consistent with those of the Control Room Emergency Makeup mode of operation. This mode of operation maintains control room habitability following an accident. No new system configurations were introduced; equipment is not operated in a new or different manner.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the damper positions are consistent with those of the Control Room Emergency Makeup mode of operation. This mode of operation maintains control room habitability following an accident. No new system configurations were introduced; equipment is not operated in a new or different manner. In addition, the mechanical stop is judged acceptable for dead weight, seismic, and torque loads.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the parameters used to establish Technical Specification limits remain unchanged. Technical Specifications 3/4.7.6 and 3/4.7.12 address the requirements of the Control Room HVAC system. The Emergency Makeup mode will maintain Control Room habitability.

TEMPORARY ALTERATION

94-0-023

DESCRIPTION:

This temporary alteration defeated the automatic battery test circuit for a Control Room damper actuator by removing a fuse from the battery test board. The battery automatic test feature tested the voltage once a day by applying a low load on the battery. The damper actuator vendor, Enertech, identified that the low voltage operation causes a passivation layer on the battery potentially affecting battery operation. The monthly battery check and the fail-safe test every six months will ensure no build-up of a passivation layer on the battery and ensure proper battery opera

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence, or the conse es of an accident, or a malfunction of equipment important to safety , previously evaluated in the UFSAR, is not increased because the temporary alteration does not introduce any new failure modes. The reliability of the actuator is improved by this temporary alteration.

2. The possibility of an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the function of the actuator is not affected.

3. The margin of safety, as defined in the bases for any Technical Specification, is not reduced because the battery will be more reliable.

UFSAR PROCEDURAL CHANGE

UFSAR DRAFT REVISION PACKAGE 5-049

DESCRIPTION:

This UFSAR change incorporated the vendor's recommendations for shutting down a Reactor Coolant Pump (RCP) with number 1 seal leakage outside operating limits. The changes incorporated in the station's abnormal operating procedures give specific guidance on monitoring RCP parameters and actions to mitigate damage to the RCPs.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because the procedure changes allow for diagnosis and mitigation prior to any gross failure.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the procedure changes allow for additional monitoring of pump parameters and early diagnosis of pump seal failures. This allows the unit to be placed in a safe condition prior to gross failure.

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.

OTHER UFSAR CHANGES

UFSAR DRAFT REVISION PACKAGE 3-044

DESCRIPTION:

This UFSAR change updated the feedwater system malfunction transient causing a reduction in feedwater temperature presented in Section 15.1.1. Currently, this section describes the maximum temperature reduction resulting from bypass of a low pressure heater string. Calculations demonstrated that bypass of a high pressure heater string resulted in a more severe feedwater temperature reduction.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because the UFSAR conservatively assumes a 55°F reduction in feedwater temperature which bounds the isolation of a high pressure heater string. Furthermore, a 55°F decrease in feedwater temperature is bounded by the excessive load increase event.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the calculations did not result in any change to the plant or the licensing basis. No new or more severe plant conditions were created or uncovered.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the maximum feedwater reduction is bounded by the current licensing basis analysis.

OTHER UFSAR CHANGES

UFSAR DRAFT REVISION PACKAGE 4-028

DESCRIPTION:

This UFSAR change removed corporate and station specific position descriptions for personnel from Chapter 13 of the UFSAR. The change was made to eliminate the need to revise Chapter 13 when an organizational change is made.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because the change does not affect operation of plant equipment. The change is administrative.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not increased because station personnel continue to meet applicable standards. The position descriptions are maintained in plant procedures. Therefore, deleting the redundant description in the UFSAR has no impact on equipment or plant operation.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because there is no change to the personnel requirements listed in Section 6.

OTHER UFSAR CHANGES

UFSAR DRAFT REVISION PACKAGE 5-065

DESCRIPTION:

This UFSAR change revised a commitment to regulatory position C of Regulatory Guide 1.93, "Availability of Electric Power Sources". The purpose for the revision of this UFSAR commitment is to permit Commonwealth Edison the option of performing periodic preventative maintenance on the System Auxiliary Transformers (SAT) with both units at power. Regulatory Guide 1.93 requires that preventative maintenance be constrained to those periods when the affected unit is in cold shutdown or refueling.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because an evaluation was performed demonstrating that the probability of losing the remaining offsite power source to the affected unit while performing preventative maintenance on the SAT is essentially unchanged from the probability of a unit experiencing a loss of offsite power under the normal electrical lineup. As described in the UFSAR, the plant is designed with a variety of available power sources. With one SAT out of service for maintenance, sufficient onsite and offsite power sources remain available to assure that diverse power availability is retained. The loss of nonemergency ac power is analyzed in Chapter 15 of the UFSAR and demonstrates that natural circulation of the reactor coolant system after reactor coolant pump coastdown is sufficient to prevent fuel or clad damage. Furthermore, the loss of non emergency ac power is not a limiting transient with respect to offsite dose.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not increased because no new failure modes are introduced, nor have any new transient initiators been identified which are not bounded by the current analyses. The bounding transients are assumed to occur concurrent with a loss of offsite power. The loss of offsite power is not explicitly or implicitly assumed to initiate any of the bounding transients.

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.

OTHER UFSAR CHANGES

UFSAR DRAFT REVISION PACKAGE 5-067

DESCRIPTION:

This UFSAR change revised the air flow rate through the containment charcoal filter unit from 8,000 cfm to 9,000 cfm to more appropriately reflect measured values.

SAFETY EVALUATION SUMMARY:

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR is not increased because operation of the containment recirculation charcoal filter units has not changed. The UFSAR was revised to more appropriately reflect measured values. The increased air flow rates were accepted in the initial in place tests. Therefore, the change does not affect the system. Furthermore, the filter plenums are designed for the higher air flow rate. Thus, the residence time of the air on the carbon filters will not be adversely affected.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not increased because operation of the containment recirculation charcoal filter units has not changed.

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.