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Byron Station, Units 1 and 2
Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: 2000 10 CFR 50.59 Report

Pursuant to the requirements of 10 CFR 50.59(d)(2), Byron Station is providing the required report for Facility Operating License Nos. NPF-37 and NPF-66. This report is provided for the 2000 calendar year and consists of descriptions and safety evaluation summaries for changes to the facility or procedures as described in the Updated Final Safety Analysis Report (UFSAR), and tests or experiments not described in the UFSAR. Also included as part of this report are changes made to features of the Fire Protection Program not previously presented to the NRC Staff.

Please direct any questions regarding this submittal to P. Reister, Regulatory Assurance Manager, at (815) 234-5441 extension 2280.

Respectfully,



Richard P. Lopriore
Site Vice President
Byron Nuclear Generating Station

RPL/RC/kh

Attachment

cc: Regional Administrator – Region III
NRC Senior Resident Inspector – Byron Station
Office of Nuclear Facility Safety – IDNS
NRC Project Manager – NRR – Byron Station (w/o attachments)


IE47

Byron Station

10 CFR 50.59 Summary Report

For Calendar Year 2000

NRC Docket Nos. STN 50-454 and STN 50-455

License Nos. NPF-37 and NPF-66

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DESIGN CHANGES (DCP)	
1.	6G-00-0020, Rev. 1
2.	6G-00-0026
3.	6G-00-0039
4.	6G-00-0045
5.	6G-00-0053
6.	6G-00-0075
7.	6G-00-0102
8.	6G-00-0113
9.	6G-00-0131, Rev. 1
10.	6G-00-0132
11.	6G-00-0134
12.	6H-00-0088

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6G-00-0020, Rev. 1
DCP 9900189 (Unit 1) & DCP 9900190 (Unit 2)

DESCRIPTION:

The purpose of this design change was to replace the Computer Room Air Conditioning Units 1VV29SA/SB and 2VV29SA/SB condensers. It installed condenser refrigerant relief valves and removed service water regulating valves on the outlet of each condenser. Non-Essential Service Water (WS) system air conditioning unit isolation valves 1/2WS263 and 1/2WS265 were changed from globe type valves to gate type valves. WS supply and return lines 0WSZ7A-2" and 0WSZ6A-2" were installed by hot tapping, along with associated isolation valves 0WS379 and 0WS380. WS piping downstream of valves 1WS268, 2WS268, 1WS269, and 2WS269 was cut and capped. Valve 2WS307 was removed and deleted. WS piping isometric diagrams were revised to reflect the as-built condition.

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 was not increased because the probability for Auxiliary Building flooding was not increased since the affected WS piping remains qualified for seismic and non-seismic design basis loading conditions. The replacement gate valves will be capable of isolating the air conditioning unit WS supply and return piping. Piping schedule and wall thickness remained unchanged. The change was on small bore 1" and 2" piping. A small bore piping failure is enveloped by the previously analyzed failure of line 0WSD8A-20" on elevation 451'. The affected systems do not perform a safety-related or safe shutdown function. Therefore, the consequences of a WS system leak or flooding event were not changed. The air conditioning units provide room cooling for the non-safety-related plant process computers. They do not provide cooling for safety-related equipment or components. Failure of the air conditioning units will not impact other safety-related systems, equipment, or components. The air conditioning units are located in non-seismic areas of the Auxiliary Building, in areas with no nearby safety-related equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because failure of the new condensers and isolation valves will not create a new type of accident or transient. The potential for new accidents or transients was not created by deletion of the service water regulating valves. In addition, failure of the new refrigerant relief valves will not create a new accident or transient. The air conditioning units will maintain computer room temperatures in accordance with original design specifications. The new piping, condensers, and isolation valves are designed to meet existing design specifications and have the same failure modes as the original components. Therefore, the possibility of a new or different type of accident or transient was not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because there are no Technical Specifications affected by this change.

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6G-00-0026
DCP 9900020

DESCRIPTION:

The purpose of this design change was to modify Component Cooling System (CC) piping to install OCC9432 in the proper direction to comply with ASME code requirements. This relief valve is an ASME Code-required valve to protect the CC system piping from the pressure rise due to thermal expansion, in the event that the common CC pump is aligned for service with its suction isolated from both surge tanks. The effect of the activity was that the valve was able to perform its required function.

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 was not increased because the change had no effect on the Reactor Coolant system, and did not impact the probability of an accident or transient. The change did not affect the mitigating capability of the CC system or any other component. The change in piping arrangement to install thermal relief valve OCC9432 conforms to the original Westinghouse design.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because no equipment was added, thus there are no new failure modes. The existing potential failure modes for the valve are unaffected.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because one CC pump and flow path is required for accident mitigation. CC train availability was unaffected by this change. The proper installation of thermal relief valve OCC9432 is an ASME code requirement.

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6G-00-0039
DCP 9900334

DESCRIPTION:

This change installed equipment at the River Screen House for the control of zebra mussels in systems served by the Circulating Water (CW) makeup and Essential Service Water (SX) makeup systems. This will be accomplished by installing a new copper ion injection system. The copper ion generators will supply a copper concentration of 10 ppb (maximum) into the River Screen House (RSH) intake bay. Copper ions are toxic to zebra mussels and other invertebrates, microorganisms and algae. The skids also contain an aluminum anode that ionizes and forms a floc used to suspend the copper for better dispersal in all areas, including low flow areas of pipe and prevents the larvae from settling. Additionally, the 3/4" CW Makeup pumps lube oil cooler inlet pipe strainer drain valves 0CW187A are changed to ball valves. Ball valves perform better, in this application, than globe valves.

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 since copper is known to cause degradation of the inconel steam generator tubes, an evaluation was performed of the affects of a condenser tube leak. Based on the very low concentration of copper added, the processes for identifying a condenser tube leak and associated actions to isolate that leak, the Steam Generator (SG) tube inspection program and the secondary chemistry control program, the probability of a SG tube rupture is not increased. No other components are adversely affected.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the addition of 10 ppb of copper ions and approximately 3 ppb of aluminum floc to the RSH intake bay has no effect on the operation of any system. The copper and aluminum will not affect any other components and cannot create a new accident or malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because none are affected.

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6G-00-0045
DCP 9900421 & DCN 0015591

DESCRIPTION:

The purpose of this design change was to modify the high-pressure turbine impulse pressure transmitters, 1PT-0505 & 1PT-0506, to accommodate the higher pressure anticipated for the power uprate condition. This modification replaced existing Barton Model 753 Pressure Transmitters with new Rosemount Model Number 1153 GB transmitters. The physical configuration between the existing and the new components were slightly different and required minor modification to the existing supports and tubing.

There were no changes to the UFSAR created by this design change. This modification also updated station procedures and corrected various editorial discrepancies in documentation discovered during the preparation of the modification package (i.e., revised directional notes to give correct locations for details).

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 was not increased because the proposed replacement pressure transmitters (Rosemount model 1153) were designed for the nuclear power industry and met specific seismic and environmental criteria. The criteria was reviewed as applicable to the as-installed condition and found to be acceptable for this application. The scaling capability of these components provided adequate margin for the maximum anticipated uprate pressure and the quality of these replacement components increased reliability.

Modifications to the instrument supports were necessary to facilitate the bolting pattern and positioning of the new instruments and calculations were revised to incorporate the applicable information for these changes. A new calculation was created for the 1PT-0506 support. A scaling and uncertainty calculation was revised to the manufacturers calculated uprated power condition. This value bounds the interim condition before uprate.

This work activity was implemented during the B1R10 outage and did not impact any plant systems necessary to support core cooling.

The modification was essentially a direct component replacement with an equal or better component having the same function and signal output. Therefore, the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety was not increased.

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6G-00-0045
DCP 9900421 & DCN 0015591
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the modification replaced existing turbine impulse pressure transmitters, 1PT-0505 and 1PT-0506, with new Rosemount model 1153 GB transmitters. Both the existing and the replacement transmitters are analog type components. The replacement transmitters perform the same design function of converting pressure to an electrical signal (the output signal will remain 4 to 20 milliamps). Because the design function of the new component was no different than the original, this modification did not affect plant operations nor change any system operations or interactions for all operating modes as previously defined.

Since the design function of the replacement transmitters (Rosemount) was the same as the existing transmitters (Barton) and the replacement transmitter met or exceeded all the design conditions, the possibility for an accident or malfunction of a different type other than any evaluated was not created.

3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the replacement of the existing Barton model 753 transmitters, with new Rosemount model 1153 GB transmitters had no impact on the system function. All critical characteristics of the replacement Rosemount transmitters met or exceeded those of the currently installed Barton transmitters. The Rosemount transmitters are nuclear grade components, which have been qualified to seismic and environmental criteria that meet or exceed those of the existing system requirements.

This work activity was implemented during the B1R10 and did not impact any plant systems necessary to support core cooling.

The impact of the installation was evaluated and determined not to impact the design function of the instrument loop.

The margin of safety as defined in the Technical Specification, Table 3.3.1-1, remained unchanged by this modification and no other Technical Specification sections were associated with this change.

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6G-00-0053
DCP 9900316

DESCRIPTION:

The purpose of this design change was to implement the following activities:

1. Reinstated the low average temperature (Lo Tave) interlock to Feedwater isolation on a reactor trip for Feedwater isolation valves 1FW009A-D, 1FW034A-D, 1FW035A-D, 1FW039A-D, 1FW510, 520, 530, 540, and 1FW510A, 520A, 530A, 540A. The Lo Tave interlock had previously been removed in conjunction with removal of the Feedwater bypass line check valves, 1FW078A-D, in modification M6-1-88-040. The effect of this change was that on reactor trip a feedwater isolation signal is not generated until the average reactor coolant temperature (Tave) drops to 564°F. For a typical reactor trip from full power, this delays FW isolation approximately 16 seconds.
2. Added an interlock to open the FW Recirculation Valves, 1FW012A-C, on reactor trip. The 1FW012 valves open on low feedwater flow. The change resulted in the 1FW012 valves opening sooner after a reactor trip.

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 to the logic for the Feedwater Isolation valves did not change the way the valves function or operate, only the logic associated with FW isolation on a reactor trip is modified. On reactor trip the FW isolation valves will isolate until the Lo Tave setpoint is reached. Failure of the Lo Tave signal resulted in FW isolation not occurring when expected. This was prevented by use of multiple independent inputs for Lo Tave to the FW isolation interlock.

The Lo Tave interlock was originally removed from the FW isolation on reactor trip to provide an alternate method (the FW Bypass line check valves were deleted) to prevent AF flow into the preheater section of the original Steam Generators (SGs) and to limit blowdown from a SG in the event of a feedline break in the upper nozzle line. The replacement SGs on Unit 1 only use one feedwater nozzle and preheater water hammer and blowdown due to a break in the upper nozzle line are no longer a concern.

Existing seismically qualified spare relays were used for the new interlocks. New cables were run in existing tray. Tray loading was evaluated and the additional cables had no adverse impact. Therefore, the changes do not affect equipment failures or malfunctions.

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6G-00-0053
DCP 9900316
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the Lo Tave interlock was originally part of the design and was removed as part of Modification M6-1-88-040. No new systems, structures, or components were added to the plant except new cables between 1PA09J, 1PA27J, 1PA10J, and 1PA28J. These cables were routed and supported seismically. No new failure modes were created. The change in control logic did not create any new modes of operation. Therefore, the proposed modification did not create the possibility of a different type of malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed change did not affect FW Isolation on SG High Level or Safety Injection. The change in logic for FW isolation on reactor trip coincident with Lo Tave and FW recirculation valve opening on reactor trip did not affect the basis for the margin of safety.

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6G-00-0075
DCP 9900470

DESCRIPTION:

The purpose of this design change was to remove the equipment associated with on-site laundry cleaning located in the laundry room in the Auxiliary Building. The major equipment removed included washing machines, dryers, valves, and miscellaneous piping & hangers in the laundry room. Procedures for operating the removed equipment were deleted. The overall effect was an empty room where the laundry was located, except for the hamper area. The hamper area is still available for storage of laundry prior to sent offsite for cleaning. Per the IPEEE analysis, the laundry room is a "Risk Significant" Fire Zone. Removal of the dryers will decrease the ignition sources within the 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 was not increased because the laundry facility was not an initiator of accidents or transients. Therefore, the probability of occurrence of accidents and transients was not affected. Removal of ignition sources from the laundry facility decreased the fire risk. Therefore, the probability of a fire was decreased. The laundry facility served no mitigation functions and did not impact the consequences of an accident. The combustible loading and fire suppression provisions in the room were not affected by this change, so the consequences of a fire were unchanged. No new failure modes were introduced, and the probability of equipment malfunction was not increased. The laundry equipment served no mitigating function. No equipment important to safety was affected by this change. Therefore, the consequence of an equipment malfunction was not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the proposed activity was the removal of the station laundry facility. No equipment was added and no existing equipment was operated. Therefore, the possibility of a malfunction, accident or transient of a different type was not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the laundry facility did not affect the margin of safety for any Technical Specification.

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6G-00-0102
DCP 9900420

DESCRIPTION:

The purpose of this design change was to add a second set of High Pressure (HP) Gland Steam (GS) spillover lines from the HP turbine rotor gland seals to the condenser. The change involved the addition of two 3-inch diameter pipe connections at each rotor gland on the HP turbine. These connect to a new 6-inch header under the HP turbine that connect to the main condenser. Also, bypass valve 1GS025 for pressure control valve 1GS023 was converted from a motor operated valve (MOV) to a manual valve and the equipment part number was changed to 1GS090. A new motor operated isolation valve was included on the new spillover header. This was named 1GS025 and was supplied with the power and control cables from the original 1GS025.

Revisions were made to the operating procedures to open and close 1GS025 and 1GS090, and align the breakers, to reflect this design 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 was not increased because the change to the GS system improved the reliability of the turbine steam seals. No other systems were affected. A failure of the new lines could cause a loss of, or low, condenser vacuum. The new lines were evaluated to the applicable codes for the required loads and found to be acceptable. Failure of the new lines was no more probable other than failure of an existing line.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the additional spillover lines can fail in the same way as the original spillover line. The addition of these new lines did not degrade or increase challenges to the performance of any assumed to function during an accident or transient. Failure of the new isolation valve or pipe would lead to air inleakage to the condenser and is not a new type of failure. The changes were incorporated into the applicable procedures to operate the GS system.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because there were no Technical Specifications affected by this activity.

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6G-00-0113
DCP 9900456

DESCRIPTION:

Revise window engraving for 345 kv offsite transmission line number change from L15501 to L0627 on main control room panel OPM03J box 25, SER points and several transient stability related protective schemes.

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 identified in UFSAR Section 8.2.2, Exelon is a member of Mid American Interpool Network (MAIN). Per the MAIN guide 2, transient stability must be maintained. For that reason, several contingencies are required for operation and delivery of bulk power to the transmission systems. The proposed changes are to be done to mitigate these requirements as a result of power uprate increasing the megawatt (MW) output. However, it is not different other than existing set-up. More contingencies are added as a result of a latest study done by the Transmission Planning department and their recommendations. Window engraving change is the result of line number change due to the addition of new Independent Power Producer (IPP) facility at Lee County. Information is similar to the existing line L15501. Engraving is to be changed to reflect new line number. No physical wiring or components were revised. There is no interface with any hydraulic systems, HVAC systems and radioactive materials handling systems, therefore accidents resulting in Off-Site dose is not increased. There is no interface with any equipment required for safety; therefore, there is no possibility of a malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the UFSAR has evaluated the stability trips and line outage contingencies in general (Not Specific) in Section 8.2.2. All specific contingencies and abnormal condition unit trips are developed by the Transmission Planning department on the basis of network load flows, and configurations following the new guidelines given in UFSAR Section 8.2.2 Transmission Sub-Station (TSS) 937 at Lee County station will be isolated by their own breakers and protective relaying and will be coordinated for fault protection. Revising and adding several stability trips and line contingencies is different other than several existing conditions. Some more line contingencies are added as a result of power uprate but are not different than previously evaluated. Windows engraving is to be changed per approved station procedures to provide accurate information to operations (well within the guidelines of Human Factors), therefore possibility for an accident or a malfunction of a different type other than previously evaluated in the SAR is not created.

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6G-00-0113
DCP 9900456
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the modification to be installed in the Relay house by Transmission and Distribution (T&D), per interface agreement, and the windows engraving revision does not affect any Technical Specification. Also, the changes are not different than the design of existing switchyard systems and line contingencies. Several new contingencies added to mitigate increase in total output to transmission system for the stability requirement of the unit and the system. Windows engraving is not different than existing program for changing windows per new mods. Therefore, the margin of safety is not reduced as a result of this change.

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6G-00-0131, Rev. 1
DCP 9900376

DESCRIPTION:

The purpose of this design change was to provide permanent temporary power distribution panels/load centers in containment for use during refueling outages. The temporary power panels are fed from offsite power. The interconnecting cables to the panels are removed and stored before the unit is put on line.

The change also provided a permanent cover for the 'Bilco' hatch on the Refueling Water Storage Tank tunnel that has capped openings for routing cables and hoses used during an outage. The capped openings are approved ventilation barriers.

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 was not increased because the use of the capped openings and temporary power panels do not affect the events which initiate a LOCA or Radioactive Release accident. The hatch is designed to mitigate the effects of the accident. The hatch is verified to maintain the required negative pressure with respect to the outside during and after each use. The temporary power panels do not interact with any plant system or component. Therefore, there was no increase in the probability of the accident due to this change. The use of the capped openings is governed by administrative controls. The capped openings are approved ventilation barriers. The penetrations were sealed with caulk or foam or equivalent material to insure the integrity of the ventilation and security barrier to maintain the required negative pressure with respect to the outside during use. The temporary power panels do not interact with any plant system or component. The off-site dose resulting from an accident will thus not be increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because it was verified by procedure that the penetrations were sealed with caulk, foam or equivalent material to insure the integrity of the ventilation and security barrier to maintain the required ¼-inch-water negative pressure with respect to the outside during use. After the outage, the temporary feeds to the temporary power panels are removed and stored and the openings capped. The capped openings are approved ventilation barriers. The temporary power panels do not interact with any plant system or component and were installed to maintain structural integrity during power operation. No possibility of a different type of malfunction of equipment important to safety was created by the change.

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6G-00-0131, Rev. 1
DCP 9900376
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the replacement of the hatch with a hatch having capped openings could affect the VA system ability to maintain the required Technical Specification of ¼-inch-water negative pressure with respect to the outside. To insure that this requirement was satisfied, controls and testing requirements were included in procedure BMP 3300-25, "Refueling Water Storage Tank (RWST) Pipe Tunnel Hatch Cover (BILCO)". It was verified by the procedure that the penetrations were sealed with caulk, foam or equivalent material to insure the integrity of the ventilation and security barrier to maintain the required ¼-inch-water negative pressure with respect to the outside. The new installation of the hatch did not allow the hatch to be opened. This provided a permanent security barrier and eliminated the need for the alarm and surveillance requirements. The use of offsite power for the temporary power feeds does interact with any plant systems or components. There were not any affects to the present plant systems or components. The power panels and cabling were installed to maintain structural integrity during power operation. After the outage, the temporary feeds to the temporary power panels are removed and stored.

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6G-00-0132
DCP 9900610

DESCRIPTION:

The proposed activity is a design change to the Carbon Dioxide CO₂ System piping at the River Screen House (RSH) that will allow the installation of an air test tap and a suppression system odorizer. Specifically, the Design Change Package (DCP) will add an air test tap (1" line with a manual isolation valve and pipe cap) downstream of the CO₂ tank manual isolation valve 0CO035 and upstream of master valve 0CO030. This test tap will be normally isolated with the closed isolation valve and pipe cap. During CO₂ system surveillance testing, the test tap will be used to connect a high-pressure air supply to the RSH CO₂ suppression system. Additionally, a tap to a suppression system odorizer (1" line with a manual isolation valve and odorizer) will be added immediately downstream of master valve 0CO030. During normal operation the isolation valve will be open with the odorizer directly connected to the CO₂ system. During CO₂ system surveillance testing, the isolation valve will be closed to prevent the odorizer from discharging to the CO₂ 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 proposed change to the CO₂ system piping does not change the occupancy or increase the fire hazards in any plant fire zone, and does not remove or degrade any fire protection system. The proposed change has not introduced a new ignition source. Therefore, the probability and consequence of an accident has not increased. The proposed changes are taps from the main system piping and will not block or restrict flow through the main distribution piping. The design requirement for the taps is the same as the original system piping design. Therefore, the integrity of the taps is equal to that of the system and will not cause failure and diversion of system flow. The effectiveness of the CO₂ system is not impacted by the proposed change. Therefore, the probability and consequence of a malfunction of equipment has not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed change to the CO₂ system piping does not make any change to how the CO₂ system operates at the RSH. Individual components of the CO₂ system are only affected during the performance of scheduled surveillance tests. The proposed changes during CO₂ system surveillance testing do not affect the operation of other plant systems or equipment. Therefore, the proposed changes do not create the possibility of a malfunction of equipment important to safety or an accident of a different type other than previously evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not impacted by the proposed activity.

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6G-00-0134
DCP 9900660

DESCRIPTION:

The purpose of this design change was to install sixteen permanent gallery platform(s) on the SI Accumulator instrumentation structural members, (four per accumulator). The platforms allow access to level instrumentation during outages and eliminated the need to build scaffold.

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 was not increased because the steel platforms are fastened to structural support steel and do not impact any safety-related components. The platforms do not change the design function of any SSCs. The platforms have been seismically designed for 2 over 1. There was no increase in hydrogen generation since the material of the platforms consisted of carbon steel. All material for the steel platforms was coated per procedure BMP 3000-7 "Field Coating" for level 1 coatings in containment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the installation of steel platforms on the 6-inch pipe support columns for the SI Accumulator level instrumentation does not change the design function of any SSCs and does not create a potential for a new type of accident or malfunction. The platforms that are fastened to structural steel supports do not impact any safety-related equipment. The platforms have been seismically designed for 2 over 1.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the installation of the platforms did not impact or affect any Technical Specifications.

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6H-00-0088
DCPs 9900729 & 9900730

DESCRIPTION:

Design Change Packages (DCPs) 9900729 and 9900730 change an ultrasonic flowmeter for the Chemical and Volume Control System (CV) Pump recirculation lines to an in-line Flow Orifice and Flow Indicator as identified in Safety Evaluation 6G-99-0175. The changes require the Operating Procedures to be revised to reflect and/or identify the new equipment. The function of the system has not changed, and thus the affect on the operating procedures is limited to the manipulation and/or identification of the new 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 the proposed changes are reflective of the affected changes to the CV Pump recirculation lines and substantiate changes incorporated by the DCPs. These changes are recognized as part of the DCP, and therefore do not increase any probability of occurrence or consequences of an accident or malfunction of equipment important to safety that has not been previously evaluated in safety evaluation 6G-99-0175.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed DCP changes do not affect the operational criteria or characteristics of the CV Pumps. The procedural changes reflect the newly installed equipment and its association with the existing equipment. Therefore, the proposed activity does not create an accident or transient of a different type from that currently considered in the previous safety evaluation report.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the in-line Flow Element and Flow Indicator is an enhancement to the current system. Technical Specifications are not impacted by the proposed changes.

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<u>DRAWING CHANGE REQUESTS (DCR)</u>	
1.	6G-00-0007
2.	6G-00-0013
3.	6G-00-0025
4.	6G-00-0035
5.	6G-00-0037
6.	6G-00-0049
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8.	6G-00-0054, Rev. 1
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20.	6H-00-0037

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6G-00-0007
DCR 990283

DESCRIPTION:

Revised Diagram M-42, Sheet 3 to show valves 1SX214 and 1SX215 as normally closed. There is no effect as these valves are isolation valves to the suction and discharge pressure gauges on the Essential Service Water Booster Pump, 1SX04P. These gauges are used to determine the performance of the booster pump quarterly as required by the station's Inservice Testing Program.

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 as a result of the proposed change. Closing the isolation valves to the pressure gauges will reduce the probability of a leak in the pressure gauge causing an equipment malfunction in the Auxiliary Feedwater diesel cubicle.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because of the minor nature of the change. Changing the normal alignment of the gauge isolation valves to closed will not effect operation of the Essential Service Water and Auxiliary Feedwater equipment in the Auxiliary Feedwater cubicle.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by the proposed change.

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6G-00-0013
DCR 990328

DESCRIPTION:

Revision to the following Diagrams: M-95-1, Rev. L, M-2095-3, Rev. G, and M-2095-5, Rev. D in regards to the location of Auxiliary Building ventilation temperature transmitters OTT-VA172/175.

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 affected equipment is non-safety related and its failure is not an initiator of an accident or malfunction of equipment important to safety. The equipment involved is part of a non-safety related air temperature control loop for the Auxiliary Building ventilation system. The change made is only to diagrams that show the location of the temperature transmitters.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change made is only to diagrams that reflect the location of the temperature transmitters. The actual operation of the equipment is not changed.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temperature transmitters are not part of a Technical Specification requirement. No change to the actual operation of the plant is made.

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6G-00-0025
DCR 980466

DESCRIPTION:

The proposed activity will revise Diagram M-69, Sheet 3, to reflect the correct valve positions and reflect the cross tie line between the regulators in the high pressure nitrogen supply system. Diagram M-69, Sheet 3 is a UFSAR figure 11.03-01, Sheet 03. The proposed activity will also revise Diagram M-152, Sheet 33, to reflect the correct information for the nitrogen regulator bypass valve 0NT5131. This valve is shown in the diagram as a locked valve. There is no lock on this valve in the field. Also, operating procedures BOP NT-M1 and BOP NT-M2, "Nitrogen System Valve Lineups" do not indicate this valve to be locked. This diagram is not a UFSAR figure.

SAFETY EVALUATION SUMMARY:

The proposed activity eliminates the potential confusion and improper operation of the nitrogen supply system from inaccurate diagrams. There is no change to system function or plant operation. There are no unreviewed safety issues with proposed activity.

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 none of the functions of the nitrogen system as described in the words of the SAR are changed. The proposed activity does not affect equipment failures and malfunctions, and no new failure modes are created. No physical plant changes are required. Nitrogen will continue to be available at the correct pressure as required.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because no new equipment interaction is created by the proposed diagram revisions. System operation is not changed. The proposed activity revises the diagrams to reflect the plant configuration and normal operation of nitrogen supply system. There are no new equipment interactions created and the operation of the nitrogen supply system is not affected by the proposed activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity does not affect the margin of safety as defined in the Bases for Technical Specification.

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6G-00-0035
DCR 990267

DESCRIPTION:

This change will update UFSAR Figure 9.2-4, Sheet 1 (M-49, Sheet 1A) and associated isometric diagrams to properly depict WM (Makeup Demineralizer) hose drops in the Auxiliary Building. The affect will be that the UFSAR and diagrams will match the installed condition (valve tagging and procedures) of the plant. Valve tagging and procedures in the plant were based upon the diagrams and the actual elevations, columns, and rows of the plant. The WM hose drops were also identified with elevation, columns, and rows on the Diagram M-49, Sheet 1A. A discrepancy was discovered between the valve tags and diagrams. A review of this situation including the associated isometric diagrams revealed that the Process and Installation Diagram (P&ID) and the isometric diagrams did not agree. Since the P&ID diagram and isometric diagrams were both found to contain errors, it was decided that the plant would remain unchanged and the diagrams would be updated to match the installed plant condition.

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 to the non-safety related WM system due to this activity do not change its function or its interaction with any other systems. Therefore, no changes to the probability of an accident or malfunction is created by this activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the changes to the non-safety related WM system due to this activity do not change its function or its interaction with any other systems. Therefore, no new accident or malfunction is created by this activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Technical Specifications and their Bases are not affected by this activity. The portions of the WM system that are affected by this activity are not addressed by the Technical Specifications and the changes to the non-safety related WM system due to this activity do not change its function or its interaction with any other systems.

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6G-00-0037
DCR 990043

DESCRIPTION:

The proposed activity will update several diagrams to reflect the ASME Class 1 boundary locations on piping systems. Also, one isometric diagram will be updated to reflect welded caps instead of threaded cap to match the as-built condition. The effect will be to improve the level of detail for information shown on the diagrams. The location of the class breaks will remain the same. The affected diagrams do not clearly depict the ASME class 1 boundary locations at the end of vent/drain/test lines. The addition of a flag at the boundary will eliminate uncertainty. The isometric change will make the diagram reflect the plant configuration.

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 is strictly a documentation change to reflect existing ASME class boundaries and plant configuration and has no effect on plant operation. There is no impact on Class 1 piping calculation/stress reports. The existing plant configuration provides acceptable ASME class 1 boundaries. There can be no affect on the probability or the consequences of any accident. This change documents the location of existing ASME class 1 boundaries and plant as-built conditions. No equipment is affected. Therefore, there is no change to the probability or consequences due to this change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because there are no physical changes to the plant, no affected systems, structures or components and no changes in equipment operation. There can be no new accidents, transients, or malfunctions due to this change.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced, because there are no effects on any Technical Specifications or Technical Specification Bases.

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6G-00-0049
DCR 990113

DESCRIPTION:

Revise Diagram M-65, Sheet 5A to show 0AB027 from normally open position to normally closed position. The subject valve is the boric acid batching tank auxiliary steam trap drain bypass isolation valve.

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 is to reflect the As-built configuration. The diagram change will not introduce any changes in the boric acid batching operation or its design intent. The subject valve should be maintained in the closed position during normal batching tank operation. However, it can be open when normal auxiliary steam trap drain is not available.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change will not affect the boric acid system operation or its intent. The boric acid batching tank auxiliary steam trap drain isolation valve already maintains open position. The subject valve is steam trap bypass valve. The change will not create any new accident scenario relating to high energy auxiliary steam line analysis as addressed in the UFSAR. The subject valve can be open to support the batching tank operation when normal auxiliary steam trap drain is not available.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the boric acid batching operation is not addressed in Technical Specifications. The change is to revise the diagram only. The change will not affect the boric acid system operation or its design intent.

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6G-00-0051
DCR 990430

DESCRIPTION:

The proposed activity is DCR 990430, which is submitted to revise Diagram M-36, Sheet 2, and Diagram M-121, Sheet 2 to show valves 1/2FW089 and 1/2FW095 in their correct normally open position. This change is made to reflect the actual configuration of the feedwater and blowdown systems. The changes are in agreement with existing plant procedures and will not significantly affect the operation of the feedwater and blowdown systems or other plant systems in an adverse manner.

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 portions of the feedwater and blowdown systems affected by the proposed activity are non-safety related and, as such, do not support any function to those systems important to the safe shutdown of the reactor. Additionally, the proposed change was an original design feature of the plant, and is done to clarify the method of operation of the system to agree with existing plant documents. Therefore, the proposed change will not increase the probability of, occurrence of, or the consequences of an accident or malfunction of equipment important to safety as originally evaluated in the SAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the portions of the feedwater and blowdown systems affected by the proposed activity are non-safety related and, as such, do not support any function to those systems important to the safe shutdown of the reactor. Additionally, the proposed change was an original design feature of the plant and is done to clarify the method of operation of the system to agree with existing plant documents. Therefore, the possibility of an accident or malfunction of a different type other than originally evaluated has not been increased.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed change does not have any implications to the Technical Specifications and, therefore does not reduce their margin of safety.

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6G-00-0054, Rev. 1
DCR 980240

DESCRIPTION:

Revise Diagram M-42-2A to reflect 1/2SX136 valves are normally open. This will update the diagram to match the normal operational Essential Service Water (SX) valve lineups required per operating procedures BOP SX-M1B "Unit 1 – Train 'B' Essential Service Water Valve Lineup" and BOP SX-M2B "Unit 2 – Train 'B' Essential Service Water Valve Lineup". This will have no effect on plant 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 the probability of any accident or transient described in the SAR is not affected by this change. The proposed change does not factor into any initiating event for UFSAR accidents and, consequently, does not increase the probability of occurrence for these previously evaluated accidents. The probability of a SX system pipe break, which causes a flood, is unchanged by opening the SX136 valves, because the valve position does not change the piping system postulated break locations.

The ability of the SX system to mitigate the consequences of any accident is not adversely affected. Two independent trains of SX are still available to mitigate all accident scenarios. The SX136 valves may be closed from the control room if required to separate trains or to isolate a postulated SX pipe break.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because changing the valve from normally closed to normally open does not create any new accident or transients. No new systems, structures, or components are added. All other SX motor operated unit specific crosstie valves are normally open.

With the SX136 valves normally open, the valves will need to be closed to separate the SX trains or to isolate some postulated SX pipe breaks. Essential service water is a dual-purpose, moderate-energy essential system designed to seismic Category 1 standards, is powered from both offsite and onsite sources, and is inspected to nuclear safety system standards. Per Branch Technical Position SPLB3-1, single active failures of components in the other train of that system necessary to mitigate the consequences of the piping failure need not be assumed. Thus, failure of the SX136 valve does not need to be postulated during a SX line break event. Design calculations and testing show that one SX pump is capable of supplying adequate cooling water to both SX trains during normal and accident conditions. Thus, failure of the SX136 to close and separate trains will not adversely affect the function of the SX system.

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DCR 980240
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced, because as discussed in the Bases for Technical Specification 3.7.8 the SX system is normally aligned with the unit-specific crosstie valves open. The proposed change for the SX136 valve position from normally closed to normally open is consistent with the Bases for the Technical Specification.

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6G-00-0068
DCR 990312

DESCRIPTION:

This activity updates Diagram M-54, Sheet 1A, which is also UFSAR Figure 9.3-2 Sheet 1. Related equipment data in Electronic Work Control System (EWCS) is also updated to reflect that the Station Air Receiver drain trap vent valves are 1" instead of 3/4". The effect will be to accurately reflect the existing installation of 1" piping and valves.

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 plant will not be changed due to this activity. Functions of the equipment involved will not change in any way. This activity will depict 1" piping and valves instead of 3/4" piping and valves on the Service Air Receiver drain traps. This minor revision to the piping and valve sizes could not have any significant affect on the Service Air System. Therefore, the probability and consequences of any accident or malfunction is not changed.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operation of the plant will not be changed due to this activity. Functions of the equipment involved will not change in any way. This activity will depict 1" piping and valves instead of 3/4" piping and valves on the Service Air Receiver drain traps. This minor revision to the piping and valve sizes could not have any significant affect on the Service Air System. Therefore, there is no possibility of creating any new accident or malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this activity does not change the function of the Service Air System or its interaction with any other systems. Therefore, no changes to the margin of safety for any system which utilizes Service Air (SA) can be affected.

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6G-00-0073
DCR 990385

DESCRIPTION:

The change revised the Diagrams M-63, Sheet 3 and M-136, Sheet 3, and UFSAR Figure 6.3-1, Sheet 4 valve symbol for valves 1/2SI8822A-D from a globe valve to a plug valve.

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 diagram change did not alter the operation of any plant equipment or increase their probability of failure. The probability of an accident was unchanged by changing the diagram valve symbol from a globe to a plug valve. The function of the ECCS was unaffected by the diagram symbol change for the 1/2SI8822A-D valves. The pressure boundary and throttling functions of the 1/2SI8822A-D valves were unaffected by the change.

No physical change was made, and the installed throttle valves meet the system design requirements. The change did not affect the ECCS recirculation sump or the minimum clearance dimension within the ECCS flow balance valves; thus the probability of ECCS blockage was unchanged. The change did not adversely affect equipment important to safety.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change had no affect on plant operation. No physical change was made and the installed throttle valves meet the system design requirements. No new failure modes were introduced.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced, because no Technical Specifications or margins were affected by this change.

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6G-00-0092
DCRs 990586 & 990588

DESCRIPTION:

Incorporate revised vendor diagram from Velan into the Exelon System. The diagram revision was performed by Velan per Exelon's request to reflect as-built conditions and to correct miscellaneous typos.

Also, revise Diagrams M-42, Sheet 3 and M-126, Sheet 1 to reflect Air Operated Valve 1(2)SX168 as air to close and fail 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 no physical change is made to the plant, the design and function of the subject valves as implied in the Safety Analysis Report (SAR) documents reviewed is not changed, and the valves will continue to work as designed (fail open). The diagrams are revised to reflect the as-built condition.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because no physical change is made to the plant, the design and function of the subject valves as implied in the SAR documents reviewed is not changed, and the valves will continue to work as designed (fail open). The diagrams are revised to reflect the as-built condition.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no physical change is made to the plant, the design and function of the subject valves as implied in the SAR documents reviewed is not changed, and the valves will continue to work as designed (fail open). The diagrams are revised to reflect the as-built condition.

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6G-00-0097
DCR 990605

DESCRIPTION:

This change will revise diagrams and the Electronic Work Control System (EWCS) database to reflect that valves 0WX507A-D and 0WX095A-D are diaphragm valves and not ball valves. There is no affect on plant operation. Both types of valves perform the same isolation function. The change will ensure that the plant diagrams match the installed condition.

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 valves 0WX507A-D and 0WX095A-D have no ability to initiate any of the accidents described in the UFSAR. The valves are passive, normally closed valves and do not perform a safety function. The affected valves do not function to limit the release of radiation to the environment nor do they function to limit or mitigate accident consequences.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the diaphragm valves installed in the plant have the same ability to perform the isolation function as the ball valves depicted in the UFSAR figures. There is no decrease in the ability of the blowdown mixed bed demineralizers to function or to be isolated when required. No equipment important to safety is affected by this change. Since there is no change in function or operation, there will be no new accidents or transients.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by this change. Valves 0WX507A-D and 0WX095A-D are not addressed by Technical Specifications.

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6G-00-0100
DCR 990611

DESCRIPTION:

The proposed activity is an as-built diagram update of the Unit 1 Instrument Air (IA) System for containment. UFSAR Figure 9.3-1, Sheet 5 (Diagram M-55, Sheet 4) is revised to show IA valves 1IA1382 and 1IA1383 connected to piping upstream of valves 1IA1380 and 1IA1381 instead of downstream of the valves.

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 relocating non-safety related containment IA lines on the diagram will not increase the probability for a loss of IA because no new IA connections or leakage paths are created. The IA system is not relied upon to mitigate the consequences of design basis accidents and transients. The systems relying on IA are designed such that a loss of IA will not prevent safety-related components or systems from mitigating the consequences of design-basis accidents. Individual components served by IA are designed to fail in their safe position on loss of air. IA system containment isolation capability is not impacted by the change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because failure of the affected IA system piping and valves cannot cause a new type of accident. A different type of equipment malfunction could not be created because the affected IA lines and valves are not active components that could introduce new equipment failure modes. The affected lines and valves are seismically supported to ensure that no safety-related equipment is impacted during a seismic event.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed diagram change does not affect the parameters upon which Technical Specifications are based.

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6G-00-0103
DCR 990394

DESCRIPTION:

The Diagram M-48, Sheet 1, will be revised to reflect that the waste disposal release tanks, (0WX01T and 0WX26T), no longer receive effluent from the temporary resin regeneration units in condensate polisher system. Note that corresponding changes to Diagram M-39, Sheet 8, is revised by DCR 990259.

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 no equipment important to safety is affected. The amount and type of radioactive effluent in the release tank is not changed. Removal of the temporary effluent input to the release tank does not affect the design basis of the system as described in the SAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the function and operation of condensate polisher system and waste disposal system remain unchanged. No new system or component interaction is created. No physical changes are made to the plant. Therefore, no new type of malfunction of equipment important to safety is created. The equipment was used only on a temporary basis and was not meant to be for permanent use. Therefore, there are no new failure modes created by the proposed activity. This diagram revision simply reflects the plant equipment that has already been removed or abandoned. The temporary regeneration system no longer serves a function. Therefore, no new accident or transient is created by the proposed activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specification or the margin of safety is not affected by the proposed activity. Therefore, the margin of safety, as defined in the Bases for Technical Specification, is not reduced.

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6G-00-0106
DCR 990406

DESCRIPTION:

This activity is to correct design documents related to the Makeup Demineralizer (WM) makeup to the Unit 2 Component Cooling (CC) surge tank to match the installed conditions. It was identified that carbon steel piping was installed for pipeline 0WM64A while the diagram and the Electronic Work Control System (EWCS) database identified the piping as stainless steel. A review of the installation determined that carbon steel is an acceptable installation. A carbon steel installation is also in agreement with the design documents for Unit 1. The effect of this activity will be to correct Diagram M-66 Sheet 4B, and affected EWCS equipment data records with data, which matches the field installation. The plant will not be affected in any way and the installed plant conditions have been determined as acceptable by Design Engineering.

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 there are no accidents or malfunctions that the WM system (makeup to CC surge tank) causes to occur or is required for mitigation. The WM system (makeup to CC surge tank) is not safety related, and its failure does not compromise any safety functions. The probability of occurrence and consequences of any accident or malfunction are not changed due to this activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the non-safety related WM system (makeup to CC surge tank) performs no safety function and cannot create the possibility of any new accident or malfunction. The activity evaluated does not change the function of the WM system or its interaction with any other systems.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because makeup to the CC Surge tank is not mentioned in the Bases for Technical Specification 3.7.7. The margin of the CC system is not affected by this change, because the function of the WM system and its interaction with the CC system are not changed by this activity.

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6G-00-0116
DCRs 950087, 970043 & 990048

DESCRIPTION:

The proposed activity adds or corrects information to the following station diagrams and Electronic Work Control System (EWCS) for the Fire Protection (FP) components listed below.

1. Equipment IDs (EIDs) are created and added to EWCS for the tamper switches on the following FP isolation valves: 0FP129A, 0FP532A, 2FP120E, and 2FP351A.
2. Vendor Diagram 203062 is revised to correct an error and to be consistent with Exelon Diagram 6E-1(2)-4976. The proposed change corrects wiring information regarding which terminals are connected to the open and close solenoids for valves 1(2)FP244A & B.
3. Byron Diagram M-52, Sheet 5, is revised to show the recirculation line and associated recirculation line isolation/throttle valves 0FP502A & B for FP Jockey Pumps 0FP06PA and 0FP06PB.
4. Byron Diagram M-579, Sheet 14, is revised to correct the architectural depiction of the Unit 1 & 2 Diesel AF pump and day tank rooms and the CO2 piping arrangement that serves these rooms. The function and components of the CO2 subsystem is not changed.

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 activity is a revision to diagrams and a database that does not change the occupancy, fire hazards or ignition sources, or the detection or suppression capability in the area. The fire protection systems function the same as prior to making this change, and no new interactions with systems important to safety are created. The probability of occurrence of the accident is not increased.

The changes do not impact equipment important to safety that are relied upon to achieve safe shutdown following a fire. The proposed changes and the consequences of a design basis fire do not affect the conclusions of the Safe Shutdown Analysis (SSA) in the Fire Protection Report (FPR) Section 2.4.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed change is a revision to diagrams and a data base that does not physically alter the fire protection components in any areas of the plant or make any change to how these systems operate. The proposed change does not affect the operation of other plant systems or equipment, because there is no interface between the FP system and other SSCs that is affected by the proposed change. Therefore, the proposed changes do not create the possibility of a malfunction of equipment or accident of a different type other than previously evaluated.

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3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specification is impacted by the proposed activity and the margin of safety is not affected.

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6G-00-0154
DCR 990634

DESCRIPTION:

1. Revise Diagram M-58 Sheet 5 to delete Fire Extinguisher 0FPT1-02.
2. Revise Diagram M-58 Sheet 5 to change Fire Extinguishers 0FPT2-06 and 0FPT2-31 from dry chemical to carbon dioxide.
3. Revise Diagram M-58 Sheet 7 to delete Fire Extinguishers 0FPM1-26, 0FPM1-35, 0FPM1-75, 0FPM 1-81, 0FPM1-82.
4. Revise procedures 0BMSR FP-3C, 0BMSR FP-4C, 0BMSR FP-3A and 0BMSR FP-4A to reflect the above changes.

SAFETY EVALUATION SUMMARY:

0FPT1-02 is no longer required since the Electrical Maintenance Shop (EM) has been remodeled. A wall was removed that allows for one less fire extinguisher, rather than two right next to each other.

0FPT2-06 and 0FPT2-31 will be changed to CO2 type from dry chemical as they are located near hypochlorite tanks. The mixture of hypochlorite and the dry chemical would cause a violent reaction.

Fire Extinguishers 0FPM1-26, 0FPM1-35, 0FPM1-81, and 0FPM1-82 are shown as located in trailers. The trailers no longer exist, so the need for the extinguishers no longer exists. Fire Extinguisher 0FPM1-75 is located in the locomotive on-site, which has been removed from the site. The extinguisher was never required to be there; and since the locomotive has been removed, the extinguisher will also be removed.

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 fire extinguishers affected by the proposed activity are not credited in any accident analyses.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the fire extinguishers affected by the proposed activity are not located in areas that can affect an accident. The fire extinguishers are not credited to mitigate an accident. The fire extinguishers are passive, standby fire protection devices, and the deletion of them cannot create the possibility of a new accident or transient.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not impacted by the proposed activity.

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6H-00-0028
DCR 990215

DESCRIPTION:

This activity shows material transition points on Diagram M-55, Sheet 5 which is UFSAR Figure 9.3-1, Sheet 6. Other changes to M-55, Sheet 5, included showing a pipe reducer that was previously not shown on the diagram and elimination of information from the diagram that was already shown on another diagram. This activity also included minor updates to Diagram M-55, Sheet 10. The revisions to Sheet 10 were to more accurately depict some Auxiliary Building Instrument Air (IA) drops.

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 activity served to make the IA Diagrams more accurately reflect the installed plant conditions. The IA system is non-safety related, and these changes do not affect the function of the IA system or cause a change to how the IA system interacts with equipment important to safety. Since the system function and its interactions with other systems are not changed, there is no change to the probability of occurrence or consequences of any accident or malfunction.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity served to make the IA Diagrams more accurately reflect the installed plant conditions. The IA system is non-safety related and these changes do not affect the function of the IA system or cause a change to how the IA system interacts with equipment important to safety. Since the system function and its interactions with other systems are not changed, there is no possibility of any new accident or malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because for the IA system, the Technical Specifications only address the IA containment isolation valves. Their margin of safety is not changed in any way. Since this activity does not change the function of the IA system or any of its interactions with other equipment, there is no change to any Technical Specification Bases.

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6H-00-0035
DCR 990342

DESCRIPTION:

This change revises the Electronic Work Control System (EWCS) data panels for Pressure Indicators 1/2PI-DG8040A/B to reflect the correct component classification of these pressure indicators. These indicators were discovered to be classified as non-safety related at Byron and Braidwood. However, a review of their function and interaction with the Emergency Diesel Generators determined that the pressure indicators should be classified as Safety Related.

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 activity does not change any initiating conditions or events associated with any accident or transient nor does it change the normal operation of the diesel generators. Therefore, implementation of this diagram change does not change the probability of occurrence or the consequences of any accidents or malfunctions of any equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the activity does not introduce any new operational limitations for the affected engine subsystems nor does it challenge the availability of the diesel generators. A complete malfunction of a diesel generator that results in the loss of a single train to mitigate the consequences of an accident is the most limiting failure considered for a diesel generator. All diesel generators remain reliable sources of emergency power, and no new failure mechanisms are introduced by this activity. Therefore, there is no possibility that this activity can create an accident or transient different from those previously evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications 3.8.1 and 3.8.2 ensure that a reliable source of emergency power is available to equipment necessary to mitigate the consequences of abnormal operating occurrences, accidents, or transients. The implementation of this activity does not challenge the reliability or availability of the diesel generators as a source of AC power, and therefore, does not reduce the margin of safety as described in the Bases of Technical Specifications and supporting SAR documents.

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10 CFR 50.59 Report
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6H-00-0037
DCR 970265

DESCRIPTION:

Updated the applicable diagrams and databases to reflect the dual in-series coolers for Diesel Generator Jacket Water and Lube Oil. These changes included an update to UFSAR Figure 9.2-2 Sheet 6. These changes were approved via UFSAR DRP 7-110 and already incorporated into sections of the UFSAR.

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 no change is made to the physical design or installation of the plant. This change only reflects the fact that the Diesel Generator jacket water and lube oil coolers are dual in-series heat exchangers. Since the function of the coolers is not changed, no accident or malfunction probabilities are increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because no change is made to the physical design or installation of the plant. This change only reflects the fact that the Diesel Generator jacket water and lube oil coolers are dual in-series heat exchangers. Since the function of the coolers is not changed, no new accident or malfunctions are created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no change is made to the physical design or installation of the plant. This change only reflects the fact that the Diesel Generator jacket water and lube oil coolers are dual in-series heat exchangers. The Diesel Generators are addressed by the Technical Specifications, but no change that would affect the margin of safety.

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<u>DRAFT REVISION PACKAGES (DRP)</u>	
1.	6G-00-0005
2.	6G-00-0017
3.	6G-00-0027
4.	6G-00-0028
5.	6G-00-0040
6.	6G-00-0044
7.	6G-00-0052
8.	6G-00-0058
9.	6G-00-0061
10.	6G-00-0065
11.	6G-00-0114
12.	6H-00-0042
13.	6H-00-0044
14.	6H-00-0047
15.	6H-00-0067
16.	6H-00-0073
17.	6H-00-0101
18.	6H-00-0116
19.	6H-00-0118
20.	6H-00-0146
21.	6H-00-0148

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6G-00-0005
UFSAR DRP 8-087

DESCRIPTION:

This evaluation was performed to revise the UFSAR, Section 15.7.5.2, and resolve conflicting statements on the movement of heavy loads over the spent fuel pool (SFP). The UFSAR allows for movement of heavy loads in accordance with NUREG 0612 while literal compliance with another statement in the UFSAR could be interpreted to preclude the movement of the Fuel Building Crane main hook, as a heavy load, over the spent fuel pool. The change provides clarification such that a heavy load can be moved over the SFP per NUREG 0612 (defense-in-depth) guidance that the heavy load does not move over fuel in the SFP.

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 was not increased because the load paths described in the analyzed accident preclude the load from contacting the fuel in the storage area. The movement of the unrestrained hook (and other heavy loads) will not be performed over spent fuel in the storage area, and therefore the heavy load will be prevented from contacting the fuel in the storage area if the load is dropped. The movement of the unrestrained hook (and other heavy loads) will be handled in accordance with NUREG-0612, which provides a defense-in-depth strategy for preventing and mitigating the results of a heavy load drop event.

Neither the drop of the heavy load described in the analyzed accident nor the drop of the unrestrained hook (and other heavy loads) is assumed to contact fuel in the storage area. Since no fuel is contacted, no fuel is failed. Therefore, the consequences (off-site dose) of the accident have not changed.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the analyzed accident considers the drop of a heavy load of approximately 125 tons, the maximum capacity of the crane. Other heavy loads that could be handled would be bound by the cask drop accident with respect to liner damage. Where the cask drop liner damage is confined to the cask storage area, which is isolated from the rest of the spent fuel storage area when it is assumed to drop, a heavy load over other sections of the SFP could damage the storage area liner if dropped. UFSAR Section 9.1.2.3.1.3 addresses liner leakage due to seismic events. The leakage paths are isolated and will not result in a dewatering event.

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6G-00-0005
UFSAR DRP 8-087
(Cont'd.)

Where the main analysis of the dropped cask event suggests that it does not credibly contact fuel in the SFP, the same conclusion is drawn from the limitation that the SFP heavy load does not pass over fuel in the SFP. The limitation to avoid carrying a heavy load over fuel is expanded upon in the defense-in-depth practices in accordance with NUREG 0612. Since neither the design basis cask drop accident or any of the assumed heavy load drops in the SFP result in damaged fuel, a new type or different accident from that evaluated is not created. Furthermore, SFP leakage from liner damage is captured by the existing systems and does not create a new accident.

The failure modes of the Fuel Handling Building crane do not depend on plant operating conditions. The restriction that the heavy load is not moved over fuel in the SFP precludes fuel rod failure due to direct impact. SFP liner leakage has been addressed. Other failures of the crane, lock-up for example, do not have any limiting consequences and therefore do not constitute new failure modes.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this change does not affect any subject addressed or implied by the current Technical Specifications. Consequently, the Bases for any Technical Specification is not affected and, therefore, is not reduced.

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10 CFR 50.59 Report
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6G-00-0017
UFSAR DRP 8-160

DESCRIPTION:

The proposed activity is an amendment to the Byron/Braidwood UFSAR (Rev. 7). The amendment is a change to the Shift Technical Advisor (STA) position description. The description change removes requirement to fill the position with personnel outside the Main Control Room. This change also includes minor editorial changes.

Presently, the STA description is traceable to a Commission Policy Statement on Engineering Expertise on Shift. This policy statement was published in the Federal Register, Vol. 50, number 208, page 43621, dated 10/28/1985. The policy describes the position requirements of STA, and does not contain a requirement to fill the STA position with somebody outside the main control room. Two options are provided. The first option is to fill the position with a Senior Reactor Operator (SRO) on shift. The second option is to fill the position with qualified personnel who have completed the necessary training and are assigned to the shift rotation.

The current STA description, in the UFSAR Appendix E, E.1, states the STA position is a technical graduate. This is inconsistent with the guidance provided, in the Commission Policy Statement on Engineering Expertise on Shift. The policy states a person with a Professional Engineers License is accepted for the STA position, but doesn't require a BS engineering, engineering technology or physical science (including course work in the physical, mathematical, or engineering sciences) from an accredited institution.

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 STA is only a shift aid and does not affect the probability of occurrence or consequences previously evaluated, and has no affect on plant transients, malfunction, equipment or accidents.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because STA is only a shift aid and the proposed change has no affect on plant transients malfunctions, or accidents.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed change is to administrative requirements, and is editorial in nature, and has no effect on any safety margins.

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10 CFR 50.59 Report
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6G-00-0027
UFSAR DRP 8-088

DESCRIPTION:

This UFSAR change corrected the UFSAR description of the High Energy Line Break (HELB) subcompartment pressurization analysis for the positive displacement (PD) charging pump rooms and the boric acid tank (BAT) room. The change identified that the PD charging pump rooms (HELB Zones 5A and 5B) are not subject to pressurization or an increase in temperature and that the boric acid tank room (Zone 15) is not an area influenced by a HELB.

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 HELB was unchanged by this UFSAR change. The change does not add or delete piping that is classified as high energy. The consequences of a HELB were not changed. No new subcompartments were affected and no changes to plant structure were made, thus the structural integrity of subcompartments was unchanged. A HELB is not postulated in the BAT room and a HELB in the PD charging pump room will not result in an increase in room temperature or pressure. Thus, the EQ conditions in these areas and the qualification of components required for safe shutdown were unaffected. The UFSAR change did not change the operation or design of any plant systems, structures, or components. No new components were added. The change had no affect on equipment failures or malfunctions. No new failure modes were created.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the EQ conditions in the BAT and PD charging pump rooms were not adversely affected. The qualification of equipment important to safety was unaffected. No new failure modes were created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications were affected.

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6G-00-0028
UFSAR DRP 8-084

DESCRIPTION:

UFSAR DRP 8-084 revised UFSAR Section 6.4, Habitability Systems, to delete the statement that a minimum of 8 hours of food supplies are stored within the control room envelope for use by the control staff during an emergency.

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 removing emergency food storage from the control room boundary did not affect the initiators of any accidents. The change had no affect on the operation of the reactor coolant system or the RCS pressure boundary. The potential for release of toxic chemicals in the vicinity of the plant was unchanged because the change did not affect the chemicals stored or shipped near or on the plant site.

The post LOCA dose to control room operators was unaffected by removing the storage of emergency food supplies from the control room and providing food from on-site or off-site sources. Byron Emergency Response procedure BZP 100-T6, assigns action to the TSC to arrange for food for the onsite emergency workers and to coordinate any deliveries with the Radiation Protection Director. Delivery of food to the control room will not increase the control room dose rate because the calculated dose to control room personnel already includes 10 cfm of unfiltered infiltration to account for opening and closing of control room boundary doors associated with such activities as required by the plant emergency plans and procedures. Assuming 10 cfm of door infiltration is consistent with the guidance provided in the Standard Review Plan (Section 6.4.1 III.3.d.(2)(ii)).

The potential dose to non-control room personnel due to delivery of food is not included in the calculated dose to control room personnel or the off-site dose to the general public. Therefore, this change did not result in an increase in the consequences of a LOCA. Accident dose to non-control room personnel is administratively controlled within the limits of 10CFR20.

No significant potential for the release of toxic chemicals in the vicinity of the Byron plant was identified. Since there is no potential for this type of accident, the proposed change did not affect the consequences.

The proposed change did not affect any plant equipment. Therefore, no existing failure modes were affected or created.

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6G-00-0028
UFSAR DRP 8-084
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the amount of food stored or not stored within the control room envelope does not affect any plant systems, structures or components.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity did not change the expected dose to control room personnel. Therefore, the margin of safety was not reduced.

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6G-00-0040
UFSAR DRP 8-109

DESCRIPTION:

Revise UFSAR Chapter 11 to reflect as-built conditions at Byron and Braidwood. The alarm setpoint for the Hydrogen header high pressure alarm will be revised to reflect a setpoint of 110 psig in Table 11.3-2 at Byron only. The flow rate capacity of various liquid radwaste filters will be corrected in Table 11.2-5 to reflect their as-built design values at both stations.

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 (SAR) is not increased because there are no accidents or transients in the SAR that can be impacted by this change. Operation of the liquid and gaseous radwaste systems is not impacted in any way by this change. The liquid and gaseous radwaste systems remain capable of processing the expected radwaste from the stations due to normal operation and anticipated transients. Release rates will be maintained below 10CFR20 and 10CFR50 appendix limits. The liquid and gaseous radwaste systems are not credited to mitigate the consequences of any equipment malfunctions or Chapter 15 accidents.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operation of the liquid and gaseous radwaste systems is not impacted in any way by this change. Neither of the changes can create the possibility of an accident or transient. This change only clarifies the design flow capacity for various filters in the liquid radwaste system, and specified the exact setpoint of the high pressure alarm on the Hydrogen header at Byron. With no operational or physical changes to the systems, there can be no possibility of a different type of equipment malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications or margins are affected by this change.

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6G-00-0044
UFSAR DRP 8-022

DESCRIPTION:

The UFSAR DRP revised the UFSAR to allow non-safety related charcoal filter samples to be tested to new standard ASTM D3803-89. The test temperature was also changed from 25C to 30C. The review also included the revision to applicable surveillances associated with the charcoal filter samples.

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 there are no changes made to the actual air filtration units themselves. The changes involve the standard to which charcoal samples are tested. The actual test of the charcoal samples is performed off-site.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected systems are operated per the UFSAR. No changes to the operation of the equipment is made. The new standard and test temperature will provide for a more accurate and consistent test. This will provide more accurate data to determine when a charcoal filter should be replaced.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the affected air filtration units are non-safety related and Non-Technical Specification. The changes have no adverse affect on the Technical Specifications.

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6G-00-0052
UFSAR DRP 8-021

DESCRIPTION:

This evaluation was performed to evaluate the change in UFSAR DRP 8-021. The change requests an additional exception to Regulatory Guide 1.140 in Appendix A of UFSAR. Regulatory Guide 1.140 Section 5 In-Place Filter Testing requires the HEPA filters and charcoal adsorbers be leak tested initially, at intervals of 18 months; following removal of an adsorber section if the integrity of the adsorber section is affected, and following painting, fire, or chemical release in any ventilation zone communicating with the system. The proposed activity was to take exception to the requirement to perform a periodic leak test on the 100% recirculating filter units located within containment. The 100% recirculating filter units located inside containment will be periodically tested to Table 1 of ANSI N510-1980. Table 1 of ANSI N510-1980 does not require periodic in-place bypass leakage testing of 100% recirculating filter units located within containment provided a periodic visual inspection, pressure-drop determination and laboratory testing of charcoal is performed.

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 was not increased because the containment charcoal recirculating filter unit is independent from other systems. The containment charcoal recirculating filter units are seismically qualified to prevent affecting other equipment. The change did not affect the seismic qualification of the system. The amount of filter bypass leakage on the containment charcoal recirculating filter unit does not affect accident mitigation since the filter unit is not required to function for safe shutdown or maintain plant operation.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the containment charcoal recirculating filter unit is not required for normal operation or safe shutdown. A visual inspection, filter pressure drop and charcoal sample testing will minimize decreases in efficiency and promote the concept of ALARA. The containment charcoal filter units do not affect EQ requirements of equipment. Containment entries do not require operation of the containment charcoal filter units.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the containment charcoal and HEPA filter units are not addressed in the Technical Specifications. The subject filter unit is not required to function following a loss of coolant accident or for safe shutdown of the plant.

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6G-00-0058
UFSAR DRP 9-013

DESCRIPTION:

This evaluation was performed to evaluate an update to the UFSAR. This activity updated the Licensing Bases to reflect the change in ownership of Byron Station from Commonwealth Edison Company, Commonwealth Edison, ComEd or any similar name to Exelon Generation Company.

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 was not increased because this change is administrative in nature. No physical change to the facility was performed. No significant change to normal operations occurred.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because there were no physical changes to the plant. Therefore, all previous analyses remain valid. No new accidents were possible.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because there was no physical change to the plant. Therefore, the basis of the Technical Specifications remained unchanged and the margin of safety was unaffected.

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6G-00-0061
UFSAR DRP 8-157

DESCRIPTION:

The change revises the UFSAR Section 9.2.1.2.3 description of available Net Positive Suction Head (NPSH) for the essential service water pumps at Byron.

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 Essential Service Water (SX) system is not an initiator of any accidents or transients in the UFSAR. The capability of the SX system to mitigate accidents or transients is not affected by this descriptive change regarding NPSH. No physical or design changes are proposed. Since the amount of NPSH available and required are not affected by this change the probability of equipment malfunction is not affected. No equipment other than the essential service water pumps are affected by this descriptive change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the SX system is not an initiator of any accidents or transients. No physical or design changes are proposed, and no existing equipment will be operated in a different manner. Therefore, the possibility of a new accident or malfunction is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the quantity of water required in the Ultimate Heat sink to prevent exceeding the maximum design temperature of the equipment served by the SX system is greater than the amount required to provide adequate NPSH.

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6G-00-0065
UFSAR DRP 8-151

DESCRIPTION:

The proposed UFSAR revision will change the terminology used when describing the resolution of rod position indication. The existing method of describing Digital Rod Position Indication (DRPI) is in percentages and inches. The revision will incorporate rod steps into the description, which is consistent with the Technical Specification terminology. This Safety Evaluation is required because this UFSAR change does not meet the stringent criteria of the Safety Evaluation Screening for UFSAR revisions.

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 changing the description of the resolution for rod position does not affect the accident in any way. No plant or operating changes are made. The wording used will have no effect on the accident or transient. As described in the paragraph changed, the rod mispositioning will still be alarmed in the Main Control Room and if the positioning is at the maximum of the position indication resolution, the power distributions will still not exceed design limits.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the rod position resolution is not changed; we are only changing the terminology used when describing the resolution. The new wording is more descriptive and is consistent with the Technical Specifications which will be more meaningful to the operator.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this change does not affect the equipment; it only affects the description of rod deviation in the UFSAR. The 12-step limit will not be affected and the Bases for the Technical Specifications will not be affected in any way. Therefore, there is no effect on the margin of safety.

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6G-00-0114
UFSAR DRP 7-101

DESCRIPTION:

UFSAR Figures 2.4-8 and 2.4-9 are revised to show the receiving building, warehouse and warehouse addition, along with the rerouting of underground drainpipe due to the addition to the warehouse. The underground piping was rerouted and is shown in both Figures 2.4-8 and 2.4-9. The as-built receiving building and warehouse were added to Figure 2.4-9 and shown in Drawing Change Request (DCR) 970121. In addition to these changes, roads to the cooling towers in these figures are updated to show the as-built configuration. Updating the figures provides a more accurate depiction of the plant site by showing the location of the warehouse and receiving buildings, and location of roadways with respect to the cooling towers.

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 water will still be removed from the site without causing any more flooding than what is already described by the UFSAR, including during a probable maximum precipitation (PMP), and will not affect safety related equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because all safety related structures are located away from the area affected by the warehouse building and roadways. The culverts and drain ditches will continue to remove precipitation away from the plant as described in the UFSAR. In the event of a PMP where the UFSAR assumes the drainage system is not functioning, the water will flow offsite as described by the UFSAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Technical Specifications and basis are not affected by this change.

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6H-00-0042
UFSAR DRP 8-092

DESCRIPTION:

UFSAR DRP 8-092 changes the Technical Specification Bases for surveillance requirements to implement WCAP-14036-P-A, Revision 1, to allow elimination of periodic response time testing requirements for selected protection channel equipment. Channel response time will be verified by inserting a bounding response time for various types of equipment in lieu of using actual test data.

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 activity involves a change in the methodology for gathering overall channel response time testing data. The change does not affect the maximum time allowed for transient or accident response listed in the Updated Final Safety Analysis Report (UFSAR). The change does not impact the current plant systems, structures, and components (SSCs) that support the installed equipment. Since the functions involved in accident or transient response are not changed, there is no impact to the consequences of any accident or transient in the UFSAR. NRC docketed letters document the review for applicability of the WCAP assumptions to the installed Reactor Trip System (RTS) and Engineered Safety Features Actuation System (EFSAS) equipment at Braidwood Station (which is identical to the equipment at Byron Station). This review found that the installed equipment at the stations is within the scope of the WCAP and validated use of the WCAP assumptions. In addition, the new Bases requirements incorporated with this change, direct verification of allocations for time response of affected components prior to placing the component in operational service and direct reverification following maintenance that may adversely affect response time will be performed. This analysis and verification ensures plant equipment response is maintained consistent with bounding values found within the WCAP. Since the functions involved in accident or transient response are not affected or changed, there is no impact to the probability of occurrence of any accident in the UFSAR.

There are no physical equipment changes due to the implementation of WCAP 14036-P-A. There is no increase in the probability of occurrence of a malfunction of equipment important to safety. The reduction of "in the field" testing will not hamper the ability to trend and/or predict impending failures. Inherent reliability of the equipment is not affected by this administrative change. Routine calibrations verify channel function and provide adequate trend/reliability data. There is no impact to the probability of occurrence of a malfunction of equipment important to safety.

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6H-00-0042
UFSAR DRP 8-092
(Cont'd.)

There are no equipment changes associated with implementing the WCAP. The equipment listed in the UFSAR is still expected to function as previously described. NRC docketed letters document the review for applicability of the WCAP assumptions to the installed Reactor Trip System (RTS) and Engineered Safeguards Features Actuation System (ESFAS) equipment at Braidwood Station (which is identical to the equipment at Byron Station). This review found that the installed equipment at the stations is within the scope of the WCAP and validated use of the WCAP assumptions. This ensures that overall channel response times will be maintained and all plant equipment will function as currently described in the UFSAR. Since the equipment assumed to function in accidents and transients listed in the UFSAR is not impacted, there is no change to the consequences of a malfunction of equipment important to safety.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because there are no equipment changes associated with implementing the WCAP methodology. The change provides an alternate methodology for verification that the plant equipment is able to respond to accidents or transients as designed. The change in methodology is based on a Failure Modes and Effects Analysis (FMEA) performed by the Westinghouse Owners Group and the NRC issued a SER signifying concurrence with the findings of the FMEA. NRC docketed letters document the review for applicability of the WCAP assumptions to the installed Reactor Trip System (RTS) and Engineered Safeguards Features Actuation System (ESFAS) equipment at Braidwood Station (which is identical to the equipment at Byron Station). The equipment listed in the UFSAR has not changed and will function as previously analyzed. Since the equipment assumed to function in accidents and transients listed in the UFSAR is not impacted, there is no change to the type of malfunctions of equipment important to safety. There is no increase in the possibility of a different type of malfunction of equipment important to safety.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the implementation of WCAP 14036-P-A, Revision 1, only changes the method of compiling total response time for Reactor Trip System (RTS) and Engineered Safeguards Features Actuation System (ESFAS). The maximum times specified for accident and transient protection in the UFSAR are not affected. There is no change to the margin of safety.

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6H-00-0044
UFSAR DRP 7-111

DESCRIPTION:

This evaluation was performed to evaluate UFSAR Change package DRP 7-111. The change was to take exception to Reg. Guide 1.140 by allowing the in-place penetration/bypass leakage to be 1.0% vs. 0.05% for various non-safety related ventilation filtration units. The systems affected by the change are Filtered Vents (VF), Lab HVAC (VL), Primary Containment Ventilation (VP), Primary Containment Purge (VQ), and Rad Waste Facility Ventilation (VW).

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 was not increased because all the affected ventilation filtration units affected are non-safety related and are not required to operate during a plant accident. NRC generic letter 83-13 allows a similar change for more critical safety related systems. The offsite dose limits as set forth in 10CFR20 and 10CFR50 will not be exceeded with the 1.0% criteria. The operation of the affected systems has no impact on safety related systems.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the change was to allowable in-place penetration/bypass leakage only and no physical changes are made to the actual filter units themselves. The change was in accordance with standards that the NRC has set for more critical safety related filtration units.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the affected systems are not part of any Technical Specification requirements and have no impact on any margins of safety.

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10 CFR 50.59 Report
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6H-00-0047
UFSAR DRP 8-073

DESCRIPTION:

This evaluation was performed to evaluate UFSAR Change DRP 8-073. This implemented the following changes related to the commitments to Regulatory Guide 1.137 contained in Appendix A of the UFSAR:

1. Distinguished between the criteria established at Byron and Braidwood Station used to procure and replace components originally designed and constructed to ASME Section III, Subsection ND.
2. States that Diesel Oil (DO) system pressure testing will be performed to the committed edition/addenda of ASME Section XI and applicable code cases.
3. Provided additional references related to the sampling of new and stored fuel oil.

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 activity does not change any initiating conditions or events associated with any accident or transient, nor do they change the normal operation of the Diesel Generators (DGs) or DO system. The changes implemented under DRP 8-073 do not adversely affect DG or DO system reliability or availability. The diesel generators remain capable of performing their intended safety function as required to mitigate the consequences of the affected accidents and the DO system remains capable of supporting this function.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the changes to the UFSAR implemented under DRP 8-073 do not have an adverse impact on the reliability of the diesel generators, nor do they impact the reliability of any interfacing system or supporting system. The changes do not introduce any new operational limitations for the affected engine subsystem, nor do they challenge the availability of the diesel generators.
3. The margin of safety, as defined in the Bases for any Technical Specification, was not reduced because the implementation of the changes to the UFSAR under DRP 8-073 do not challenge the reliability or availability of the diesel generators as a source of AC power and therefore does not reduce the margin of safety as described in the Bases of Technical Specifications and supporting documents.

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6H-00-0067
UFSAR DRP 8-006

DESCRIPTION:

This change revises UFSAR Section 9.5.7 to clarify and correct configuration and performance data related to the Diesel Generator Full-Flow Lube Oil Filters. It removes reference to a specific filter element particle size and clarifies the discussion of expected filter differential pressures to be consistent with the currently installed and specified filter elements. In addition, it removes reference to a specific filter differential pressure which requires element replacement.

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 these changes to the UFSAR do not affect the initiating conditions or events associated with the evaluated accidents. The Full-Flow filters support the accident mitigation function of the diesel generators; they cannot fail in such a manner as to initiate these accidents.

No new failure modes or mechanisms are created by this change that could impact the ability of the diesel generator to perform their design function. Accident analyses assume the failure of a single diesel generator. The changes introduced do not affect this bounding condition, nor can they introduce any condition that would result in the failure of a diesel generator.

These changes do not introduce any new operational modes or restrictions that could impact diesel generator performance. No changes are introduced that would challenge engine reliability or capability. The changes do not alter any operational or maintenance practices associated with the diesel generators.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change to the description of the performance and design characteristics of the full-flow filter do not have any impact on the reliability of the diesel generators nor do they impact the reliability of any interfacing systems. The change does not introduce any new operational limitations for the affected engine subsystems, or do they challenge the availability of the diesel generators. A complete malfunction of a diesel generator that results in the loss of a single train to mitigate the consequences of an accident is the most limiting failure considered for a diesel generator. All possible failure modes and mechanisms are bound by this failure.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the change does not affect any parameters upon which the Technical Specifications are based.

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6H-00-0073
UFSAR DRP 8-005

DESCRIPTION:

This change corrects and clarifies the design pressures of the Chemical & Volume Control (CV) & Safety Injection (SI) pump suction lines shown in UFSAR Table 6.3-1.

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 changing the design pressure values for the CV & SI pump suction lines shown in Table 6.3-1 will not cause the lines to operate outside their design basis. It merely clarifies the design pressure as defined by ASME Subsection NC-3112.1. The lines remain capable of operating at the pressures previously listed in the table under accident conditions in accordance with the original plant design. Therefore, there is no increase in the probability of an accident or malfunction, or in the consequences of a failure.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the changes to Table 6.3-1 do not change the way the systems are designed, analyzed or operated. It merely clarifies the design pressure as defined by ASME Subsection NC-3112.1. Therefore, there is no possibility of an accident or malfunction different from those previously evaluated in the UFSAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the changes made to Table 6.3-1 are to correct and clarify the ECCS suction piping line design pressure to agree with the existing plant design. These changes have no effect on plant operations in any mode. Therefore, there is no change in the margin of safety.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0101
UFSAR DRP 8-049

DESCRIPTION:

Revise UFSAR Appendix A to take exception to Regulatory Position C.6 to USNRC Regulatory Guide 1.44 "Control of the Use of Sensitized Stainless Steel," to state that the intergranular corrosion test specified for sensitized austenitic stainless steel welding procedures is not required.

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 need to perform the intergranular corrosion tests specified in USNRC Regulatory Guide 1.44 has been shown to be unnecessary, especially in a PWR environment. As a result of the low oxygen content contained in the reactor coolant during normal operation, a PWR inherently complies with the intent of RG 1.44. The removal of the intergranular corrosion test on welding procedures for austenitic stainless steels does not result in an increased failure rate or probability of Inter-Granular Stress Corrosion Cracking (IGSCC) for the RCS or ECCS piping. Therefore, the probability of a LOCA or a malfunction of ECCS piping is not increased. The capability of the ECCS to mitigate a LOCA is not affected; therefore, the consequences of a LOCA or equipment malfunction are not affected.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because as a result of the low oxygen content contained in the reactor coolant during normal operation, a PWR inherently complies with the intent of RG 1.44. The IGSCC that could result from sensitization is effectively suppressed by the normal operating PWR environment. Protection from other contaminants is assured through implementation of a chemical control program. The removal of the intergranular corrosion test on welding procedures does not result in an increased failure rate or malfunction of any plant equipment. Therefore, an accident or malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the only aspect of the referenced Technical Specifications that could be affected is the integrity of the applicable piping. Protection from contaminants is assumed through implementation of a chemical control program. The stainless steel materials are protected from coming in contact with oxygen, fluorides, and chlorides whenever elevated temperatures and pressures are present. Therefore, the integrity of the applicable piping is not affected, and the margins of safety associated with the Technical Specifications are not reduced.

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6H-00-0116
UFSAR DRP 8-171

DESCRIPTION:

UFSAR DRP 8-171 modifies the section of the UFSAR which describes Byron and Braidwood Stations' implementation of the requirements of NRC Regulatory Guide 1.82, Rev. 0. Specifically, the response to regulatory position, Item 10 on page A1.82-3 of the B/B UFSAR is revised to account for the potential that the Containment Spray (CS) nozzle orifices may not be the most limiting restriction in the systems diagram a suction on the containment recirculation sump during a design basis accident. Also, the size of a particle capable of passing through the sump screen is updated.

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 the probability is unaffected since this change has no effect on any of the initiating factors for any accidents. The consequences are not increased since the design function of the ECCS is maintained based on the physical properties of the debris generated, the available openings through the valves, the flowpath through two centrifugal pumps (Charging and Safety Injection) before reaching the throttle valves, and the high flow velocities at the restrictions within the valves.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because there is no change to any component/structure that would create a possibility of a different type of malfunction or accident. UFSAR DRP 8-171 revises the UFSAR to reflect the potential configuration of the throttle valves in the ECCS injection lines. This change does not create the possibility of a different type of equipment malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the original documents that discussed compliance with Regulatory Guide 1.82 Revision 0 indicated that the sizing of the recirculation sump screen was in compliance with the specific recommendations of the Regulatory Guide. That is, the screen openings were smaller than any opening in the systems served by the pumps that take suction from the containment recirculation sumps. This information is currently documented in the UFSAR, Appendix A, "Regulatory Guide 1.82". Byron SER, Section 6.2.2 states "The applicant's sump design conforms to the guidelines in Regulatory Guide 1.82 except that the floor in the vicinity of each sump is level and does not slope gradually down away from the sump to assist in preventing heavier debris from accumulating at the sump". Additionally, another screen was required to be added (this is the existing outer screen) to achieve lower flow velocities.

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UFSAR DRP 8-171
(Cont'd.)

Thus, compliance with the requirements of Regulatory Guide 1.82 was part of the basis for NRC approval of the Byron/Braidwood design. This compliance resulted in establishing an implicit margin of safety.

The analysis performed in support of this safety evaluation indicates that the change does not result in a discernible reduction in the margin of safety. The debris that would reach the valves through a tortuous path (if it is not pulverized by the RH, SI or CV pumps) is either small and pliable or brittle, and would be swept through the valves. Thus, the design function of the valves is maintained.

The margin of safety is determined by the design and qualification of plant equipment, the operation of the plant within analyzed limits, and the point at which protective actions are initiated. T.S. 3.5.2 addresses "ECCS – Operating," and T.S. 3.5.3 addresses "ECCS – Shutdown." All assumptions made in the bases for these ECCS-related specifications are unaffected by the proposed change to the UFSAR. ECCS pumps remain fully operational, ECCS flow is unaffected, and the resultant accident mitigation consequences and associated margins of safety, specifically the acceptance criteria required by 10 CFR 50.46, are unchanged. There are no design changes or plant equipment performance parameter changes associated with this change. No setpoints are affected, and no change is proposed to plant operational limits as a result of this change.

Since this change does not result in a discernible reduction in the margin of safety, additional compensatory measures, beyond existing design features and procedural requirements are not needed. As discussed in the body of this evaluation, provisions are in place to control materials taken inside containment and inspections are performed to verify containment and sump cleanliness after outage activities. Additionally, the design of the containment sump and screens exceeds the minimum recommendations given in Regulatory Guide 1.82, Revision 1.

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6H-00-0118
UFSAR DRP 8-186

DESCRIPTION:

This change revised UFSAR sections discussing the flood protection design of the Essential Service Water (SX) Pump rooms to indicate that these rooms are watertight in relation to the design basis flood in the rooms. The affected UFSAR sections are 3.4.1.2, 9.2.1.2.4, 9.2.1.2.7, 9.3.3.1 and 9.3.3.2. It also added that the safe shutdown capability of the plant is not degraded by the flood levels in the SX pump rooms due to break flows from higher elevations.

These changes were necessary to clarify the watertight level of the SX pump rooms and document the evaluation of the flood levels in the SX pump rooms due to break flows at higher elevations. The UFSAR refers to the SX pump rooms as watertight. The doorways and penetrations leading into the SX pump rooms are watertight except for ventilation ducts connecting the SX pump rooms to the Auxiliary Building Equipment Drain pump rooms and the Auxiliary Building Floor Drain Sump rooms. The lowest elevation of these ducts is approximately 340 ft-10 inches; this elevation is 10ft-10 inches above the floor elevations in the SX pump rooms.

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 UFSAR changes do not have any physical impact on plant equipment. The Auxiliary Building Flood Level calculation determines the flood levels resulting from postulated design basis line cracks. The location of these cracks have been postulated based on piping stress levels in accordance with the requirements of the Standard Review Plan, NUREG-0800, Section 3.6.1, "Plant Design for Protection Against Postulated Piping Failures in Fluid Systems Outside Containment". The proposed UFSAR changes do not have any impact on the stress levels in plant piping; thus, the probability of a piping failure is not increased. The conclusions of the UFSAR related to the SX pump rooms are not affected. A design basis piping failure in an SX pump room will not affect the equipment in the other SX pump room; each SX pump room is watertight in relation to the design basis flood level for the room.

Considering the flowpath into the SX pump rooms through the Equipment and Floor Drain sump pump rooms, the resulting flood levels do not invalidate the conclusions of the design basis evaluations. The maximized flood level in one SX pump rooms is below the flood levels listed in the UFSAR, Section 9.3.3.2. Furthermore, the concurrent maximized flood levels in both SX pump rooms do not affect any safe shutdown equipment in the rooms. The safe shutdown capability, after a Byron and Braidwood design basis Auxiliary Building Flooding event is maintained.

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6H-00-0118
UFSAR DRP 8-186
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed UFSAR changes are needed to clarify the watertight reference to the SX pump rooms and the Auxiliary Building floor and equipment drain pump rooms. Although the SX pump rooms are not fully watertight, the only opening into the rooms that is not watertight is located at an elevation significantly higher than the evaluated flood level in the rooms) 10.8 ft. vs. 19 inches for Byron and 12 inches for Braidwood). Therefore, the SX pump rooms can be considered to be watertight with respect to each other, in relation to design basis flood levels due to breaks in the rooms. Considering the flowpath into the SX pump rooms through the Equipment and Floor Drain sump pump rooms, the resulting flood levels in the SX pump rooms do not invalidate the conclusions of the existing analyses. The safe shutdown capability of Byron and Braidwood, following an Auxiliary Building Flooding event is maintained.

The conclusions of the UFSAR evaluation of Auxiliary Building Flooding are not affected; furthermore, the level of protection for plant safety related equipment from postulated design basis floods is not reduced. Therefore, the proposed UFSAR changes do 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 Bases for any Technical Specification, is not reduced because considering the flowpath into the SX pump rooms through the Equipment and Floor Drain sump pump rooms, the resulting maximized flood levels in one SX pump room from the worst case break are bound by the flood levels evaluated in Section 9.3.3.2 of the UFSAR. More importantly, the maximized, concurrent flood levels in both SX pump rooms do not affect the operation of any safe shutdown equipment in the rooms. The conclusions of the evaluations that confirm the safe shutdown capability of Byron and Braidwood after Auxiliary Building flooding are maintained.

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6H-00-0146
UFSAR DRP 7-235

DESCRIPTION:

The proposed activity is to add to an exception to Appendix A, Regulatory Guide 8.9. The wording to be placed within the section would be to not perform a bioassay baseline measurement upon inprocessing into the station, unless there exists a reasonable potential that an intake may have occurred.

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 activity is to eliminate a step within the bioassay program as delineated within the UFSAR. The bioassay program does not have any interaction with equipment to safety. Therefore, the consequences of an accident or a malfunction of equipment important to safety has not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity is to eliminate a step within the bioassay program as delineated within the UFSAR. The bioassay program does not have any interaction with equipment important to safety. Therefore, the possibility of an accident or a malfunction of a different type previously evaluated has not increased.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this activity will not reduce the margin of safety because no whole body screening equipment is removed. Individuals upon leaving the RPA and/or the site will pass through these monitors. These monitors have been set so that <1% of an Annual Limit of Intake will be detected. 10 CFR 20.1502 requires monitoring if there exists the potential for an intake greater than 10% of an Annual Limit of Intake. These monitors have always been one of the first indications of an intake and will remain in that position. This activity eliminates the baseline bioassay for individuals inprocessing into the station and who do not have a reasonable potential of having an internal deposition of radioactive material.

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For Calendar Year 2000

6H-00-0148
UFSAR DRP 8-001

DESCRIPTION:

This evaluation was done to revise the UFSAR Section 7.3.1.1.6 "Auxiliary Feedwater System Operation" to remove the reference to the ESF Status Display (ESD). Revise UFSAR Section 10.D.1.6 to remove the reference to the use of the status display to verify the Auxiliary feedwater flowpath after maintenance. The ESD system has been permanently removed from the facility.

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 a non-safety related system which is isolated from safety related systems. The removal of the requirement for the ESD monitoring system, and taking credit for information from group monitor lights, enhanced control room indication, training, staffing, and administrative programs to meet the intent of Regulatory Guide 1.47 will have no effect on how any safety related system performs its function. The deletion of the requirement for this system will not result in a challenge to a safety system, nor was this system identified as an initiator of any accident previously evaluated in the SAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the operation, performance or failure of this modified system does not impact the performance of any safety-related system. Information previously provided by the ESD system to meet the intent of Regulatory Guide 1.47 is collectively available through the group monitor lights, enhanced control room indication, training, staffing, and administrative programs, each of which have been evaluated by the NRC. The ESD is a monitoring system which is isolated from safety-related equipment and does not provide any protection or control functions. Therefore, it will not result in an unanalyzed transient which impacts the units ability to control reactivity, remove core heat, or provide or process reactor coolant.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because there are no Technical Specification margins of safety identified for the system or any system directly connected to this system. Additionally, this system does not indirectly result in parameter changes to other systems which are associated with a margin of safety.

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<u>ENGINEERING REQUESTS (ER)</u>	
1.	6G-99-0056
2.	6G-00-0030
3.	6G-00-0063
4.	6G-00-0070
5.	6G-00-0078
6.	6G-00-0094
7.	6G-00-0108
8.	6G-00-0109
9.	6G-00-0115
10.	6G-00-0122
11.	6G-00-0123
12.	6G-00-0127
13.	6G-00-0147
14.	6G-00-0152
15.	6G-00-0158
16.	6G-00-0162
17.	6H-00-0021
18.	6H-00-0023
19.	6H-00-0115
20.	6H-00-0187
21.	6H-00-0190
22.	6H-99-0239

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6G-99-0056
ER 9708825

DESCRIPTION:

The temporary freeze seal will be placed on line 1CV90B-1" to support maintenance activities on check valve 1CV8436. This freeze seal will be making up an Out of Service (OOS) boundary and will provide isolation while work is performed on the above valve. This work activity will be done while the unit is defueled. Contingency plans will be contained in the procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and freeze seal evaluation in the event of a freeze failure.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength and seismic requirements of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. Approved contingency actions will be in place to restore the system's pressure boundary. A freeze seal failure is not a precursor to any of the accidents postulated in the UFSAR.
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 affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. LCO conditions are established as necessary to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created. Because the appropriate regulatory requirements, precautions, limitations and prerequisites will still be met, there is no possibility of the occurrence of an accident or malfunction of a type different than those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are directly affected by this change.

Byron Station
10 CFR 50.59 Report
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6G-00-0030
ER 9902401

DESCRIPTION:

The temporary freeze seal will be placed on line 2CV42DB-2. The freeze seal will be part of an isolation boundary in order for maintenance to work on valve 2CV8479B. The 2B Centrifugal Charging pump will be in the required LCO and the miniflow line will be placed Out of Service (OOS) during the freeze process. This line is the 2B Centrifugal Charging miniflow line to the Unit 2 seal water heat exchanger. Contingency plans are contained in the procedure BMP 3300-7 "Application of Freeze Seal To All Piping," and the freeze evaluation. These contingencies will be in place in the event that the freeze seal fails.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. A freeze seal never fails in a catastrophic manner and its failure can be detected with plenty of time to implement the approved contingency actions to restore the system's pressure boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Failure of a freeze seal is a slow deterioration of the pressure boundary that is detected by evidence of a slowly developing leak. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temporary installation of the freeze seals is done while the component/system is OOS. Installation of freeze seals does not affect any parameters upon which Technical Specifications are based.

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6G-00-0063
ER 9910979

DESCRIPTION:

The temporary freeze seal will be placed on line 1RH20AC-3/4". The freeze seal will form an isolation boundary between valve 1RH004C and the 1A Residual Heat Removal Heat Exchanger (1RH02AA). The Residual Heat Removal Heat Exchanger, (tube side only), and the 1A RHR pump will be Out Of Service (OOS). During the time the valve 1RH004C is removed, a 3/4" pipe plug/hardware will be installed as part of the freeze seal contingency plan.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. A freeze seal failure can be detected with plenty of time to implement the approved contingency actions to restore the system's pressure boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temporary installation of the freeze seal is done while the component/system is OOS. Installation of the freeze seal does not affect any parameters upon which Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
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6G-00-0070
ER 9911617

DESCRIPTION:

The temporary freeze seal will be placed on line 1SX42AB-1 1/2". The freeze seal will form an isolation boundary between the supply line to the Safety Injection pump bearing oil cooler 1SI01SB, and valve 1SX2077B. The Safety Injection pump bearing oil cooler and related equipment will be Out of Service (OOS). Only the valve bonnet will be removed on valve 1SX2077B. Contingency plans will ensure that the bonnet is available to be re-installed should the freeze seal fail and isolation valves 1SX015B and 1SX013B will be ready to be closed if the bonnet cannot be installed.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. A freeze seal failure can be detected with plenty of time to implement the approved contingency actions to restore the system's pressure boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for ar. y Technical Specification, is not reduced because the temporary installation of the freeze seal is done while the component/system is OOS. Installation of the freeze seal does not affect any parameters upon which Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0078
ER 9911885

DESCRIPTION:

The temporary freeze seal will be placed on line 1CC49B-1", discharge side of relief valve 1CC9421A. The freeze seal will form an isolation boundary downstream of relief valve 1CC9421A which is located on the outlet side of the seal water heat exchanger, 1CV02A. The seal water heat exchanger and related equipment will be Out of Service (OOS). No freeze seal is required upstream of relief valve 1CC9421A due to the isolation valves used. Contingency plans will ensure that a blind flange is installed when the relief valve is removed. This activity will be performed in Modes 5, 6, or defueled.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Component Cooling (CC) system will remain operable for the duration of the freeze activity. Installation of the freeze seal does not impact any parameters upon which Technical Specifications are based. Since activity will be done in Modes 5, 6 or defueled the CC Technical Specification is not applicable. Though the Technical Specification is not applicable in those modes, CC is required as a support system for RHR in Modes 5 and 6. This activity will not impact Residual Heat Removal (RHR) because the freeze seal will be installed in accordance with approved procedures. Contingency plans will be in place and a blind flange will be installed during the time the relief valve is removed.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0094
ER 9915654

DESCRIPTION:

The temporary freeze seal will be placed on line 2SXA9A-6". The freeze seal will form an isolation boundary between the 20" supply header and check valve 2SX194. This line is the U-2 Train A & B Auxiliary Feedwater Pump(s) Recirculation discharge to Essential Service Water (SX). The Auxiliary Feedwater pump(s) and related equipment will be Out of Service (OOS) and Unit 2 will be in Mode 6 during this activity. Since the system will still be considered operable, contingency plans will include using a blind flange when the check valve is removed.

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 contingency plans and requirements will be in place per procedure BMP 3300-7 / MA-AA-MM-6-00610 "Application of Freeze Seal To All Piping" and the freeze evaluation. Therefore consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. In the event of a freeze seal failure, the contingency provides for a blind flange to be installed when the check valve is removed for any extended period of time to stop any uncontrollable leakage should the freeze seal fail. There will not be a change to the normal plant configuration for the SX system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when the 2A and 2B Auxiliary Feedwater pumps and related equipment are OOS in Mode 6. Also, the freeze seal will be installed per approved procedures and the freeze jacket weight has been evaluated and found acceptable. Contingency plans will be in place should the freeze seal fail. The freeze seal will prevent drain down of the SX system during the time check valve 2SX194 is removed.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seal does not impact any Technical Specifications for Auxiliary Feedwater or SX because the systems will be OOS in Mode 6 and a blind flange will be part of a contingency plan to prevent leakage should the freeze seal fail.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0108
ERs 9913303 & 9913304

DESCRIPTION:

The temporary freeze seal(s) will be placed on lines 2SX26AB-10" and 2SX27DB-10". These lines are the supply and return lines for the 2B Diesel Generator (DG) Upper and Lower Jacket Water Coolers. The freeze seals will form an isolation boundary along with isolation valves 2SX169B and 2SX052B. The 2B DG and related equipment/systems will be Out of Service (OOS) during the freeze evolution. The freeze seals are considered secondary isolation boundaries while the isolation valves are the primary isolation boundary. The freeze seals will provide a leak free environment should the primary isolation valves leak by.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. The applicable Essential Service Water (SX) and DG systems will be isolated OOS during this activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the applicable SX and DG systems(s) will be OOS for the duration of the freeze activity. Installation of the freeze seal(s) does not impact any parameters upon which Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0109
ER 9912942

DESCRIPTION:

The temporary freeze seal will be placed on line 1SXE5A-3". The freeze seal will form an isolation boundary between the 6" supply header and check valve 1SX194. This line is the U-1 Train A & B Auxiliary Feedwater Pump(s) Recirculation discharge to Essential Service Water (SX). The Auxiliary Feedwater pump(s) and related equipment will be Out of Service (OOS) and Unit 1 will be in Modes 4, 5, or 6 during this activity. Since the system will still be considered operable, contingency plans will include using a blind flange when the check valve is removed.

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 contingency plans and requirements will be in place per procedure BMP 3300-7, "Application of Freeze Seal To All Piping" and the freeze evaluation, therefore consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. In an event of a freeze seal failure, the contingency provides for a blind flange to be installed when the check valve is removed for any extended period of time to stop any uncontrollable leakage should the freeze seal fail. There will not be a change to the normal plant configuration for the SX system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. Also, Unit 1 will be in Modes 4, 5, or 6 during this freeze activity. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seal does not impact any Technical Specifications for Auxiliary Feedwater or SX because the systems will be OOS in Modes 4, 5, or 6 and a blind flange will be part of a contingency plan to prevent leakage should the freeze seal fail.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0115
ER 9911951

DESCRIPTION:

The temporary freeze seal(s) will be placed on lines 0CC16B-1" and 0CC16A-3/4" which are the inlet and outlet side of relief valve 0CC9432. The freeze seals will form an isolation boundary downstream and upstream of relief valve 0CC9432. Relief valve 0CC9432 was installed backwards during construction and will not allow part of the Component Cooling (CC) section of piping to relieve system pressure if the section of piping was isolated from both surge tanks. This was documented on Problem Identification Form (PIF) B1999-03579 and Operability Assessment 99-027 was completed for the present configuration of the relief valve. The installation of the two freeze seals isolates the suction line from the surge tank in the same manner as the incorrectly installed relief valve. Therefore, this configuration is encompassed by Operability Assessment 99-027. Per procedure BOP CC-14, "Post LOCA Alignment of the CC System," the applicable LCO will be entered if the Unit 0 CC pump was aligned such that it was isolated from both surge tanks. This work activity is temporary and the freeze seals will be removed when the work activity is complete. Contingency plans will ensure that pipe-plugging devices along with blind flanges are staged and available to be installed during the time the lines are 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 effects on the system as a result of the freeze seals installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seals would not adversely affect the material strength of the piping system. The freeze seals acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seals. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0115
ER 9911951
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the CC system will remain operable for the duration of the freeze activity. Installation of the freeze seals does not impact any parameters upon which Technical Specifications are based. This activity will not impact CC because the freeze seal will be installed in accordance with approved procedures. Contingency plans will be in place during the time the relief valve is removed.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0122
ER 9914130

DESCRIPTION:

The temporary freeze seal will be placed on line 2SI65A-2" to support maintenance activities on valve 2CV8434. This freeze seal will be making up an Out of Service (OOS) boundary and will provide isolation while work is performed on valve 2CV8434. Contingency plans are contained in procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and in the freeze seal evaluation to ensure controls are in place should the freeze seal fails.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength and seismic requirements of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. Approved contingency actions will be in place to restore the system's pressure boundary. A freeze seal failure is not a precursor to any of the accidents postulated in the UFSAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created. Because the appropriate regulatory requirements, precautions, limitations and prerequisites will still be met, there is no possibility of the occurrence of an accident or malfunction of a type different than those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are directly affected by this change.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0123
ER 9914020

DESCRIPTION:

The temporary freeze seal will be placed on line 1WXN3AA-2" on both sides of valve 1WX243A to support maintenance activities on valve 1WX243A. This freeze seal will be making up an Out of Service (OOS) boundary and will provide isolation while work is performed on valve 1WX243A. Contingency plans are contained in procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and in the freeze seal evaluation to ensure controls are in place should the freeze seal fail.

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 effects on the system as a result of the freeze seals installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength and seismic requirements of the piping system. The freeze seals act equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. Approved contingency actions will be in place to restore the system's pressure boundary. A freeze seal failure is not a precursor to any of the accidents postulated in the UFSAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seals. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created. Because the appropriate regulatory requirements, precautions, limitations and prerequisites will still be met, there is no possibility of the occurrence of an accident or malfunction of a type different than those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are directly affected by this change.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0127
ER 9914363

DESCRIPTION:

This activity consists of installing a temporary freeze seal on line 0FPD1A-4". This freeze seal will be part of an isolation barrier to allow installation of the fire protection portion of permanent modifications Design Change Package (DCP) 9900374 (Unit 1) and 9900375 (Unit 2).

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 affected hose station will be taken Out of Service (OOS) and does not change any initiating conditions or events associated with any accident or transient. LCO 3.10.f will be entered until the OOS on hose station 141 is cleared. The requirements of procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and the freeze seal evaluation are intended to prevent freeze seal failure of line 0FPD1A-4". The freeze seal will act as a temporary pressure boundary for the FP System. The acceptability of the freeze seal location has been evaluated using procedure NSP CC-AA-403 "Maintenance Specification Selection and Control of Freeze Seal Location". Therefore, the freeze seal has been determined to be a suitable pressure boundary. Contingency plans will be stated in the above procedures along with a Heighten Level of Awareness (HLA) briefing held just prior to the freeze activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed with all associated equipment taken out OOS, and the acceptability of the freeze seal location has been evaluated using procedure NSP CC-AA-403. Therefore, the freeze seal has been determined to be a suitable pressure boundary. Contingency plans will be stated in the above procedures along with a HLA held just prior to the freeze activity. Due to this, there is no failure mechanism on this piping system which would create an accident which is different than those already evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of this freeze seal results in the temporary loss of Fire Protection hose station 141. LCO 3.10.f will be entered with the freeze seal installed to ensure that sufficient coverage for the area left unprotected by inoperable hose station 141 is provided.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0147
ER 9916359

DESCRIPTION:

The temporary freeze seals will be placed on line 2WSD7A-8". The freeze seals will form an isolation boundary between valve 2WS141 and the 14" return header. This line is the U-2 Main Generator Exciter Cooler(s) return line. The coolers and related equipment will be Out of Service (OOS) during this activity. Also, this activity will be performed during B2R09. Since Non-Essential Service Water (WS) will still be considered operable, contingency plans will include using two freeze seals to ensure system integrity while valves 2WS141, 2WS143, and 2WS140 are removed and replaced.

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 contingency plans and requirements will be in place per procedure BMP 3300-7/MA-AA-MM-6-00610 "Application of Freeze Seal To All Piping" and the freeze evaluation; therefore, consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. In the event of a freeze seal failure, the contingency provides for a second freeze seal to be established prior to removing any valves. There will not be a change to the normal plant configuration for the WS system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when the 2A & 2B Exciter Coolers and related equipment are OOS. Also, the freeze seals will be installed per approved procedures and the freeze jacket weight(s) have been evaluated and found acceptable. Contingency plans will be in place should a freeze seal fail. The freeze seals will prevent drain down of the WS system during the time valves 2WS140, 2WS141, and 2WS143 are removed.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seals on the Non-Essential Service Water system does not impact any Technical Specifications.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0152
ER 9916783

DESCRIPTION:

The temporary freeze seal will be placed on line 2SX58AA-2". The freeze seal will form an isolation boundary between the 2" x 1-1/2" reducer and the 3" supply header. This line is the U-2 Train A, Essential Service Water (SX) supply to the 2A Centrifugal charging pump and lube oil coolers. The 2A Centrifugal Charging pump and related equipment will be Out of Service (OOS). Since SX will still be considered operable, contingency plans will include having available a hose/valve to be installed should the freeze seal fail. Also, isolation valves are available to isolate sections of the 'A' Train of SX.

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 contingency plans and requirements will be in place per procedure BMP 3300-7/MA-AA-MM-6-00610 "Application of Freeze Seal To All Piping" and the freeze evaluation; therefore, consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. Contingency plans which include using a hose and valve will be made available to be installed on line 2SX58AA-2" should the freeze seal fail. Also, isolation valves are available to control Auxiliary Building flooding.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when the 2A Centrifugal charging pump and lube oil coolers and related equipment are OOS. Also, the freeze seal will be installed per approved procedures and the freeze jacket weight has been evaluated and found acceptable. Contingency plans will be in place should the freeze seal fail. The freeze seal will prevent drain down of the SX system during the work activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seal does not impact any Technical Specifications for CV or SX because the systems will be OOS during the time the freeze seal is installed.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0158
ER 9916980

DESCRIPTION:

The temporary freeze seal will be placed on line 1SXB1AA-3". The freeze seal will form an isolation boundary between 30" header reducer and check valve 1SX116A. This line is the U-1 Train A, Essential Service Water (SX) cubicle cooler return. The 1A SX pump and related equipment will be placed Out of Service (OOS). Since portions of SX will still be considered operable, contingency plans will include having available a blind flange to be installed should the freeze seal fail. Also, isolation valves are available to isolate sections of the "A" Train of SX if required.

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 contingency plans and requirements will be in place per procedure BMP 3300-7 / MA-AA-MM-6-00610 "Application of Freeze Seal To All Piping" and the freeze evaluation; therefore, consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. Contingency plans, which include using a blind flange, will be made available to be installed on line 1SXB1AA-3" should the freeze seal fail. Also, isolation valves are available to control Auxiliary Building flooding.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when the 1A SX Pump/Cubicle coolers and related equipment are Out of Service. Also, the freeze seal will be installed per approved procedures and the freeze jacket weight has been evaluated and found acceptable. Contingency plans will be in place should the freeze seal fail. The freeze seal will prevent drain down of the SX system during the work activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seal does not reduce the margin of safety of any Technical Specifications for SX because the systems will be OOS during the time the freeze seal is installed and appropriate action requirements will be met.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0162
ER 9915324

DESCRIPTION:

The temporary freeze seal will be placed on line 0SX79AB-6" upstream of valve 0SX161B. The freeze seal will form an isolation boundary for maintenance work on valve 0SX161B. The freeze seal will not affect Essential Service Water (SX) system operation since this portion of the system will not be required to be operational during the period that the freeze seal is installed.

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 freeze seal will be installed per procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and the freeze seal has been evaluated using procedure NSP CC-AA-403 Maintenance Specification Selection and Control of Freeze Seal Location" and determined to be an acceptable isolation boundary. The freeze seal is considered equivalent to a closed valve. Also, contingency plans have been provided in the work package should the freeze seal fail. Therefore, a failure of a freeze seal will not adversely affect the system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the freeze seal will be forming an isolation boundary. The freeze seal will prevent any uncontrolled leakage from valve 0SX161B while the bonnet is removed for the maintenance activity. The system will continue to perform per design and contingency plan(s) will be in place in case of a freeze seal failure.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications will be impacted by this activity.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0021
ER 9909504

DESCRIPTION:

ER 9909504 to evaluate installation of two temporary freeze seals on lines 1WSC9AB-1 and 1WSC8AB-1 to support maintenance activities (valve repair/replacement). The line is classified as non-safety related and is located in the Turbine Building. The freeze seals made up the Out of Service (OOS) boundary and provided isolation boundary. Contingency plans were available as part of the freeze seal evaluation in the event of a freeze seal failure.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. A freeze seal never fails in a catastrophic manner and its failure can be detected with plenty of time to implement the approved contingency actions to restore the system's pressure boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. An OOS is established to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Failure of a freeze seal is a slow deterioration of the pressure boundary that is detected by evidence of a slowly developing leak. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temporary installation of the freeze seals is done while the component/system is OOS. Installation of the freeze seals does not affect any parameters upon which Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0023
ER 9909333 & 9909334

DESCRIPTION:

ER 9909333 and ER 9909334 to evaluate use of Ceramalloy CL+ & CP+ for coating the gear oil coolers and jacket water heat exchangers (HX) 0SX04AA/AB and 0SX03AA/AB. This coating will build up the eroded and corroded areas and also provide a protective coating to these areas.

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 effects on the system as a result of the Ceramalloy repair were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the repair included the determination that the coating would not adversely affect the material strength of the coolers or HX. The repair only provides a protective coating and does not affect the system's pressure boundary.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the Ceramalloy coating. The coatings have been tested for the most critical condition (DBA) and have been found to be acceptable. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Failure of a coating will not be any different than the normal erosion/corrosion process. This ensures that a malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the repair (Ceramalloy coating) is done while the component/system is OOS. Ceramalloy does not affect any parameters upon which Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0115
ER 9914631

DESCRIPTION:

The temporary freeze seal will be placed on line 1CV90B-1" to support maintenance activities on check valve 1CV8436. This freeze seal will be making up an Out of Service (OOS) boundary and will provide isolation while work is performed on the above valve. This work activity will be done while the Unit is defueled. Contingency plans will be contained in the procedure BMP 3300-7 "Application of Freeze Seal To All Piping" and freeze seal evaluation in the event of a freeze failure.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength and seismic requirements of the piping system. A freeze seal acts equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. Approved contingency actions will be in place to restore the system's pressure boundary. A freeze seal failure is not a precursor to any of the accidents postulated in the UFSAR.
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 affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. LCO conditions are established as necessary to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak. This ensures that a malfunction of a different type is not created. Because the appropriate regulatory requirements, precautions, limitations and prerequisites will still be met, there is no possibility of the occurrence of an accident or malfunction of a type different than those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are directly affected by this change.

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6H-00-0187
ER 9209268

DESCRIPTION:

Diagram M-48-6A (UFSAR Figure 11.02-07, Sheet 1) is revised. A note is added to the diagram to indicate that the strainer basket for ORF01M is not installed. The strainer basket was removed during construction due to the possibility of significant dose rate build-up on the element.

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 strainer does not affect any safety considerations and is non-safety related. It is not analyzed in the UFSAR accident analyses.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected portion of the Reactor Building Floor Drains (RF) system has no affect on the integrity of the safety-related portion of the system. The operation of the system will continue to support operations of the plant as described in the UFSAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the change has no affect on any Technical Specifications. There is no affect on equipment important to safety.

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6H-00-0190
ER 9917136

DESCRIPTION:

The temporary freeze seal will be placed on line 1SX58AB-2". The freeze seal will form an isolation boundary between the 2" x 1-1/2" reducer and the 3" supply header. This line is the U-1 Train B, Essential Service Water (SX) supply to the 1B Centrifugal Charging pump and lube oil coolers. The 1B Centrifugal Charging pump and related equipment will be Out of Service (OOS). Since SX will still be considered operable, contingency plans will include having available a hose/valve to be installed should the freeze seal fail. Also, isolation valves are available to isolate sections of the 'B' Train of SX.

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 contingency plans and requirements will be in place per procedure BMP 3300-7/MA-AA-MM-6-00610 "Application of Freeze Seal To All Piping" and the freeze evaluation; therefore, consequences of a malfunction of equipment important to safety will not increase. The contingencies will ensure that the piping will remain intact during all design basis accidents. Contingency plans which include using a hose and valve will be made available to be installed on line 1SX58AB-2" should the freeze seal fail. Also, isolation valves are available to control Auxiliary Building flooding.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when the 1B Centrifugal Charging pump and lube oil coolers and related equipment are OOS. Also, the freeze seal will be installed per approved procedures and the freeze jacket weight has been evaluated and found acceptable. Contingency plans will be in place should the freeze seal fail. The freeze seal will prevent drain down of the SX system during the work activity.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the installation of the freeze seal does not impact any Technical Specifications for SX system because the systems will be OOS during the time the freeze seal is installed.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-99-0239
ER 9905092

DESCRIPTION:

ER 9905092 to evaluate installation of the temporary freeze seal on line 0WSK2A-2" to support maintenance activities for line replacement on the 0A Non-Essential Service Water (WS) pump bearing cooler. The line is classified as non-safety related and located in the Circulating Water Pump House. The freeze seal made up the Out of Service (OOS) boundary and provided isolation. Contingency plans were available as part of the freeze seal evaluation in the event of a freeze seal failure.

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 effects on the system as a result of the freeze seal installation were evaluated and determined to not constitute an unreviewed safety question. The engineering review of the freeze seal evaluation included the determination that the freeze seal would not adversely affect the material strength of the piping system. A freeze seal is equivalent to an isolation valve and its failure is detected by the initial slow leakage across the seal boundary. Contingencies are in place to restore the system's pressure boundary. A freeze failure is not a precursor to any of the accidents postulated in the UFSAR.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the affected component/system are reviewed to determine the overall impact resulting from the isolation created by the freeze seal. OOS conditions are established as necessary to ensure that the correct level of administrative control is applied to the freeze seal evolution. The altered configuration of the system was evaluated and determined to not represent an unreviewed safety question. Failure of a freeze seal is a slow deterioration of the pressure boundary that is detected by evidence of a slowly developing leak. Contingencies approved in the freeze seal controls ensure that restoration of the system is immediately performed at the onset of a detected leak.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temporary installation of the freeze seal is done while the component/system is OOS or with a Temporary Modification to provide cooling for the upper bearing cooler. Installation of the freeze seal does not affect any parameters upon which Technical Specifications are based.

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<u>FIRE PROTECTION REPORTS</u> <u>(FDRP)</u>	
1.	6G-00-0033
2.	6G-00-0036, Revision 3
3.	6G-00-0120
4.	6G-00-0126
5.	6H-00-0038

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0033
FDRP 19-027

DESCRIPTION:

Revise the Fire Protection Report (FPR) Fire Hazards Analysis in Section 2.3 and the FPR Table 2.2-3 combustible loading summary to delete the specific fire loads currently attributed to paper products in Fire Zones 2.1-0 and 11.6B-0 and add a bounding description of the combustible loading that results from general office materials permanently stored in the Main Control Room (MCR) and Auxiliary Building Chemistry offices. The proposed changes to the combustible loading are based upon National Fire Protection Association (NFPA) guidance and will envelop all files, folders, binders, copier paper, procedures, and diagrams that are currently residing in the MCR and Chemistry offices or that may be added in the future. Also a numerical error in Table 2.2-3 for Fire Zone 3.2A-1 will be corrected. The value of 19,025 pounds of cable insulation will be revised to 19,196 pounds. This is the correct value documented in FPR, Section 2.3.3.4, and Calculation ATD-0026, Rev 6.

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 design basis fire is based on the occupancy of the fire zone, associated fire hazards (combustibles exposed to potential ignition sources), and the fire protection detection and suppression systems provided to mitigate fires that originate within the zone. The change does not change the zone occupancy, fire detection, or fire suppression capability in the affected zones. The change only adds combustible loading to the zones. However, the increased combustible loading, including the generic office loading described by the proposed change, does not challenge the capability of the zone fire protection design features or adversely affect the ability to achieve and maintain safe shutdown of the plant. Since the fire protection design and defense-in-depth features are considered adequate to mitigate any effects attributed to the increased fire load, the fire hazard analysis conclusions are not changed.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change of replacing the specific fire loads attributed to paper products with the generic office fire loading does not create the possibility of an accident or malfunction of a type different from those previously evaluated. The combustible office materials are primarily stored in metal file cabinets, desks, and bookcases and are not normally exposed to ignition sources and are unlikely to become a design basis fire initiator. In this configuration, the stored materials do not constitute an unusual hazard or create the potential for a different type of accident.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not impacted by the proposed change.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0036, Revision 3
FDRP 19-028

DESCRIPTION:

The proposed activity revises the Fire Protection Report (FPR) to correct deficiencies in the Safe Shutdown Analysis (SSA) for Fire Zones 3.2A-1 and 3.2A-2 (Lower Cable Spreading Rooms - Non-segregated Bus Duct Areas for Unit 1 and 2) that were identified. Specifically, the following FPR sections are revised. Unit 1, Section 2.4.2.7, (Unit 2, Section 2.4.2.6) is revised to delete references to Appendix R, Deviation A5.8.23 (A5.8.19) and a discussion of 125 volt DC cross-tie capability will be added. Unit 1, Table 2.4-4, "Support System Equipment" is revised to add Unit 2 components 2DC01E (Battery 211), 2DC03E (Battery Charger 211), and 2DC05E (DC Bus 211). Unit 1 Tables 2.4-22, 22a, 23, 23a, 29, 29a, 31, 32, 71, and 71a (Unit 2 Table 2.4-4) are revised to list Cables 1DC027 and 1DC087. Unit 1, Section A5.8.23 (Unit 2 Section A5.8.19) are revised to delete the existing deviations from Appendix R.

The proposed activity revises the FPR SSA to credit the use of the 125 volt DC cross-tie between Buses 1DC05E and 2DC05E, to maintain the long-term availability of the fire affected Division 11(21) ESF 125 volt DC battery and bus. It adds the associated components and cables of the DC cross-tie to the SSA tables and deletes a deviation from Appendix R from each unit that is no longer required to support the analysis. Additionally, operating procedures are enhanced with notes to facilitate their use to cross-tie DC buses following a fire.

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 do not increase the quantity or physical arrangement of combustible material within the zones, nor does it create or introduce additional ignition sources. It does not change fire detection or suppression capability in any area. The specific purpose of the SSA is to describe the methods available to mitigate an accident (in this case, a fire) that has already started. Therefore, the proposed changes do not increase the probability that the accident (fire) may occur.

The consequence of a design basis fire for Zones 3.2A-1(2) is currently evaluated in the SSA, including the potential fire damage to power cables for redundant Division 11(21) and 12(22) battery chargers. The proposed activity adds the actions credited to assure that the affected 125 volt battery and DC bus receives long-term power supplies such that the DC bus voltage does not degrade beyond that voltage needed to power the safe shutdown loads (e.g., emergency diesel generator, instrument inverters, credited control circuits). Since the full long-term functionality of the credited Division 11(21) 125-volt DC bus is maintained, the consequences of a design basis fire have not changed.

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2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity of utilizing an existing 125 volt DC cross-tie between DC Buses 1DC05E and 2DC05E will be performed using existing procedures 1(2)BOA ELEC-1, "Loss of DC Bus Unit 1(2)" or enhanced BOP DC-7, "125 Volt DC ESF Bus Crosstie/Restoration" depending upon circumstances existing after the fire. The procedures have been utilized in the plant on many occasions or implemented on the plant simulator without causing any new transients. Plant operators are trained on the use of these procedures. For these reasons, the proposed activity has not created the possibility of an accident or transient of a different type.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the credited actions to utilize the DC cross-tie can be performed within the required actions of the Technical Specifications, therefore, the margin of safety as described in the basis is not reduced.

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6G-00-0120
FDRP 19-040

DESCRIPTION:

The Fire Protection Report (FPR) Fire Hazards Analysis in Sections 2.3.11.41, 2.3.11.49, and 2.3.11.56 and combustible loading in FPR Table 2.2-3 is revised to describe the fire loading changes resulting from relocating the permanently stored anti-contamination clothing (PCs) from the old laundry room and 426' elevation of the Auxiliary Building (AB) to the 401' elevation of the Auxiliary Building. The specific fire loading changes are:

1. Fire loading in the old laundry room, Elevation 426' AB (Fire Zone 11.6C-0) is decreased from 184,800 Btu/ft² to 68,000 Btu/ft² with the elimination of 11,000 pounds of PCs previously stored in this area.
2. Fire loading in the general area elevation 426' AB (Fire Zone 11.6-0) is decreased from 56,100 Btu/ft² to 38,000 Btu/ft² with the elimination of 16,200 pounds of PCs previously stored in this area.
3. Fire loading in the general area elevation 401' AB (Fire Zone 11.5-0) is increased from 59,652 Btu/ft² to 69,152 Btu/ft² with the addition of up to 32,263 pounds of PCs previously stored in Fire Zones 11.6-0 and 11.6C-0. The PCs are stored in metal containers up to the equivalent of 41 large metal bins. The containers are large metal bins with tight fitting covers totally enclosing the stored PCs or five sided metal bins or drums partially enclosing the PCs made available for immediate dispensing.

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 activity does not change the fire zone occupancy, fire detection, or fire suppression capability in the affected zones. In addition, this change is not adding any new ignition sources. The change only revises combustible loading in the zones. In two fire zones (11.6-0, 11.6C-0), the combustible loading is decreased. In Fire zone 11.5-0, the combustible loading is increased by 16% to a value of 69,152 Btu/ft², which is still considered to be a low combustible loading value. The combustible loading does not challenge the capability of the zone fire protection design features or adversely affect the ability to achieve and maintain safe shutdown of the plant. Therefore, the proposed change does not affect the probability or consequence of a design basis fire or malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the revised combustible loading in the zones due to the re-location of stored PCs does not create the possibility of an accident or malfunction of a type different from that previously evaluated.

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(Cont'd.)

The PCs are stored in metal containers with lids and covers that are placed and maintained in accordance with approved practices and procedures of the Radiation Protection department. In this configuration, the stored PCs do not constitute a hazard to or create the potential for a different type of accident or malfunction.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not affected by the proposed activity.

Byron Station
10 CFR 50.59 Report
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6G-00-0126
FDRP 19-037

DESCRIPTION:

The proposed activity revises the Fire Protection Report (FPR) Safe Shutdown Analysis (SSA) to correct errors and discrepancies in the analysis for cold shutdown repairs and the descriptions of deviations from Appendix R.

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 do not increase the quantity or physical arrangement of combustible material within any fire zone, nor does it create or introduce additional ignition sources. It does not change fire detection or suppression capability in any area. The effect of correcting discrepancies within the FPR sections and tables will make the FPR SSA accurate and consistent. The corrections did not alter the equipment that can be exposed to fire damage. The corrections did not alter how the equipment is operated or add new manual actions. Therefore, the probability and consequence of an accident or equipment important to safety will be damaged or malfunction is not increased by the proposed activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity revises the FPR to correct errors and discrepancies in the SSA identified. The effect of correcting discrepancies within FPR sections and tables will make the FPR SSA accurate and consistent. The corrections did not alter the equipment or actions credited to achieve cold shutdown. For these reasons, the proposed activity has not created the possibility of an accident or malfunction of equipment important to safety of a different type.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not affected by the proposed change.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0038
FDRP 19-029

DESCRIPTION:

Revision to Diagram 6E-0-3600A
Procedure Revision to 0BVSR 10.g.6-1 "Fire Barrier Penetration Visual Inspection 18 Month Surveillance" and 0BOL 10.g "LCOAR Fire Rated Assemblies TRM LCO # 3.10.g
Revision to TRM Section 3.10.g

The affected documents are revised to reflect that internal conduit penetration seals installed for fire protection purposes are designed and function as noncombustible seals to limit the travel of smoke. These internal conduit seals are not required components to maintain the fire rating of an assembly. The current policy of controlling and inspecting internal conduit penetration seals in accordance with the fire rated assemblies section of TRM Section 3.10.g, is discontinued. In addition, criteria in the FPR that describes specific conduit configurations that do not require an internal conduit seal is revised to more completely reflect criteria developed based upon actual fire test results performed by an industry group with an independent test laboratory.

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 involve the design criteria regarding internal conduit penetration seals installed for fire protection purposes and the treatment of these seals in relation to periodic surveillance and application of compensatory measures if degraded. These changes do not increase the probability of occurrence of a fire or the consequences of a fire, because fire testing has demonstrated that fire cannot propagate from one zone into adjacent zones through unsealed conduits. These changes do not adversely affect the plant capability to achieve and maintain post fire safe shutdown.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the changes only affect the fire protection function of internal conduit penetration seals. These changes do not modify the approved design of typical penetration seal details. These changes do not alter station criteria or practices associated with seals on the external side of conduits, embedded spare sleeves, or seals on the inside of conduit that serve other design functions such as security, missile, High Energy Line Break (HELB), flood, ventilation, or radiation barriers.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no aspects of the Technical Specifications or Bases for any Technical Specification are affected by these changes; and therefore, the margin of safety is not reduced.

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<u>OUT OF SERVICES (OOS)</u>	
1.	6G-00-0006
2.	6G-00-0014
3.	6G-00-0042
4.	6H-00-0015

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0006
OOS 990010583

DESCRIPTION:

Alternate feed breaker for BUS 034W not available.

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 Breaker 034W2 which is unavailable due to the Out of Service (OOS) is a redundant supply breaker for Bus 034W. The Unit 1 supply breaker 034W1 is available so no equipment supplied by Bus 034W is without power. The Bus 034W is a 480 volt bus supplying the Service Building and the Radwaste Building with power. The equipment supplied by the bus is not safety related and does not impact any safety analysis or increase the consequences of an accident by increasing the offsite dose release. In the case of a failure of Bus 144 or a loss of offsite power on Unit 1, the supply breaker 034W1 could be easily moved to the 034W2 position to supply the non safety related loads.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the inability to supply Bus 034W does not add to the risk of an accident or create a new failure mode which needs to be evaluated. This has been already identified in the UFSAR by the description of the systems which are supplied by the 034W Bus.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by the OOS or the new equipment position.

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6G-00-0014
OOS 990017120

DESCRIPTION:

The activity is the repair to the instrument signal line from the valve positioner to the 1AF005A valve. The Out of Service to isolate the instrument air to the kinked line, will require removing the instrument air to all of the 1AF005 valves. This will cause the 1AF005A-H valves to go to their design fail-safe condition of fully 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 isolating the instrument air to the AF005A-H valves and failing them in the open position will not affect the probability of a Main Steam Line Break, LOCA, Loss of Normal Feedwater/ Loss of AC Power, and SGTR. The AF005A-H valves are located in the Auxiliary Building and are not in proximity to the Main Steam Lines, Feedwater Lines, the electrical distribution system, or the Steam Generators.

The consequences of an accident or malfunction are detailed below for each applicable accident.

Main Steam Line Break – The consequences of the accident are not increased, as this change will not affect performance of the flow limiting orifices (AF04MA-H). These orifices will limit flow such that the three remaining intact Steam Generator (SGs) will receive the required minimum flow of 420 gpm. Also, the faulted SG could be isolated by use of the handwheel on the corresponding AF005 valve or closing the corresponding AF013 valve from the main control board. Therefore, this change will not increase potential dose sources or affect systems that prevent or limit off-site dose releases.

LOCA – This accident does not impose any additional flow conditions on the Auxiliary feedwater system not addressed by other accidents. The flow limiting orifices will limit flow such that the SGs will receive the required minimum flows. Therefore, this change will not increase potential dose sources or affect systems that prevent or limit off-site dose releases.

Feedwater System Pipe Break – The consequences of the accident are not increased, as this change will not affect performance of the flow limiting orifices (AF04MA-H). These orifices will limit flow such that the three remaining intact SGs will receive the required minimum flow of 420 gpm. Also, the faulted SG could be isolated by use of the handwheel on the corresponding AF005 valve or closing the corresponding AF013 valve from the main control board. Therefore, this change will not increase potential dose sources or affect systems that prevent or limit off-site dose releases.

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OOS 990017120
(Cont'd.)

Loss of Normal Feedwater/ Loss of AC Power – The consequences of the accident are not increased as this change will not affect performance of the Auxiliary feedwater diesel. Upon a loss of AC power, the diesel-driven Auxiliary feedwater pump will start and deliver the required flow to the SGs. Therefore, this change will not increase potential dose sources or affect systems that prevent or limit off-site dose releases.

SGTR – The consequences of the accident are not increased, as this change will not affect the Margin-to-Overfill of the ruptured SG. The modification performed on the AF005 valves replaced the internal trim with a more restrictive design. Analyses were performed of their maximum allowable flowrates to each SG. The Modification Test for the trim measured the flowrates to each SG with the valves failed open. The maximum flow acceptance criteria was not exceeded, thus ensuring that the margin to overfill was not exceeded. Therefore, this change will not increase potential dose sources or affect systems that prevent or limit off-site dose releases.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because during normal at power operations, having valves AF005A-H failed open will not adversely impact the Auxiliary feedwater system or plant operations. The valves will be in their normally open and failed position. The valves have no auto-actuation feature to close during an accident. During accidents that result in Auxiliary feedwater actuation, the AF005 valves will be in their required accident position. UFSAR Section 10.C.1.4 states the following regarding the impact of a loss of instrument air on the Auxiliary feedwater system, "Failure of the air system is accommodated by failing air operated flow control valves open on loss of air. Therefore, failure of nonessential equipment does not affect essential functions of the AF system."

The design basis for the Auxiliary feedwater system is that it can deliver at least 160 gpm to each of the three unfaulted SGs within one minute following an accident without operator action necessary for thirty minutes. This design basis can be satisfied without instrument air available to throttle the AF005 valves. Therefore, by failing the AF005 valves open, the design will not be affected.

3. The margin of safety, as defined in the Bases for any Technical Specification is not reduced because the proposed change does not affect the Auxiliary Feedwater System Technical Specifications as there are no requirements specifically pertaining to the AF005 valves in the Byron Technical Specifications.

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10 CFR 50.59 Report
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6G-00-0042
OOS 990015560

DESCRIPTION:

This long term Out of Service (OOS) administratively controls the 1/2SX193A/B gate valves in the closed 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 position of the 1/2SX193A/B gate valves does not affect any accident or transient initiators. The function of maintaining Essential Service Water (SX) system pressure boundary integrity at the SX/chemical feed interface will be met by closing the 1/2SX193A/B gate valves. With this function met there will not be any increase in the consequences of any accident or transient.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because closing the 1/2SX193A/B gate valves provides passive pressure boundary integrity at the SX/chemical feed interface. With pressure boundary integrity met there is no possibility of an accident or transient of a different type.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because isolating the SX/chemical feed interface with the 1/2SX193A/B gate valves does not affect the margin of safety for any Technical Specification.

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6H-00-0015
OOS 990003666

DESCRIPTION:

This change is a sub-set of the originally evaluated change. The original change was the modification of the Refueling Machine via upgrade. The new console was designed to be removed from containment after refueling operations were complete to enhance its longevity and reliability. The UFSAR was also updated using the original Safety Evaluation (BRW-SE-1997-308). This change is the Out of Service (OOS) which accomplishes the removal of the Refueling Machine Console.

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 is only in effect when no fuel handling operations are taking place inside containment. As such, they cannot increase the probability of a fuel handling accident when no fuel handling activities are taking place. Furthermore, the absence of the console is not the initiating event to any previously evaluated non-fuel handling accident.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this change is only in effect when no fuel handling operations are taking place inside containment. As such, they cannot create the possibility of a previously non-evaluated fuel handling accident when no fuel handling activities are taking place. Furthermore, the absence of the console creates no mechanism to initiate any kind of transient or condition that could cause an accident not previously evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this change does not affect any parameter upon which Technical Specifications are based; therefore, there is no reduction in the margin of safety.

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<u>PROCEDURE REVISIONS</u>	
1.	6G-98-0078
2.	6G-00-0004, Rev. 1
3.	6G-00-0008
4.	6G-00-0016
5.	6G-00-0029
6.	6G-00-0038
7.	6G-00-0041
8.	6G-00-0043
9.	6G-00-0069
10.	6G-00-0081
11.	6G-00-0088
12.	6G-00-0105
13.	6G-00-0141
14.	6G-00-0146
15.	6H-00-0001
16.	6H-00-0003
17.	6H-00-0009
18.	6H-00-0019
19.	6H-00-0040
20.	6H-00-0065
21.	6H-00-0079
22.	6H-00-0083
23.	6H-00-0085
24.	6H-00-0098
25.	6H-00-0125
26.	6H-00-0130
27.	6H-00-0147
28.	6H-00-0149
29.	6H-00-0167
30.	6H-00-0186

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6G-98-0078

BOP DG-9

Chemical Addition for the Diesel Generator Jacket Water System

DESCRIPTION:

This activity described the addition of additional chemicals to the Diesel Generator (DG) Jacket Water system to eliminate oil contamination. The chemicals were used in accordance with vendor recommendations and were designed to remove oil contamination. This is a short term activity and these chemicals were drained and flushed after attaining results desired. Normal Chemistry control was then restored.

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 chemicals did not affect the performance of the DG to perform its designed function. System thermal and hydraulic performance were assessed and were unaffected by the chemical additions. The end result of cleaning the Jacket Water system increased the performance of the equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the addition of these chemicals did not affect any condition to create any different condition other than previously analyzed. No conditions were created affecting normal or emergency operation of the DG.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the requirements of Technical Specifications were maintained. No accidents were affected, not were created, and the DG system was maintained fully operable per requirements. Therefore, there was no change in the margin of safety.

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6G-00-0004, Rev. 1
RP-AA-202 Rev. 1, RP-AA-440, Rev. 0,
RP-AA-441 Rev. 0, & RP-AA-825 Rev. 0

DESCRIPTION:

The description of the proposed activity is to implement procedures (see procedure listing below) that reflect the 10 CFR 20 Subpart H standards to be adopted on 2/4/2000 and portions of the accepted respiratory protection methodology listed in Regulatory Guide 8.15 Revision 1. The effect of the proposed activity is to provide greater assurance that worker dose will be maintained ALARA and to reflect the technological advances in respiratory protection equipment and methodologies.

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 no system, structure or component will be affected or changed. The proposed activity will affect a referenced program within the SAR. The proposed activity is to incorporate new 10 CFR 20 Subpart H standards for respiratory protection and acceptable respiratory protection methodology.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because no system, structure or component is changed, as described in SAR, by the proposed activity. The proposed activity will affect a referenced program within the SAR. The proposed activity is to incorporate new 10 CFR 20 Subpart H respiratory protection standards and acceptable respiratory protection methodology.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity incorporates new Radiation Protection Standards and acceptable methodology for respiratory protection. The margin of safety will be increased because the proposed activity, which incorporates 10 CFR 20 Subpart H and portions of Regulatory Guide 8.15 Revision 1, focuses on TEDE and ALARA not just internal deposition of radioactive material.

Procedure Listing:

RP-AA-202	Quantitative Respirator Fit Testing
RP-AA-440	Radiological Respiratory Protection Program
RP-AA-441	Evaluation and Selection Process for Respirator Use
RP-AA-825	Maintenance and Care of Respiratory Protective Equipment

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6G-00-0008
BCP 700-12, Rev. 2
Steam Generator Molar Ratio Control with Ammonium Chloride Addition

DESCRIPTION:

Revision 2 of BCP 700-12 provides for the temporary installation and removal of a positive displacement pump that will pump a molar ratio control chemical ammonium chloride, from the chemical addition tank, 2CF01T, into the condensate chemical addition line. This chemical addition is to optimize the Molar Ratio Index in order to mitigate the corrosive effects of deposits in steam generator crevices. This pump will be placed in parallel with the existing morpholine chemical feed pumps. Design Change Package (DCP) 9900330 provides for the addition of piping, valves and flanges to support the pump installation. Pump installation and removal will be governed by procedure BCP 700-12. The procedure also governs the operation of the pump, controls the chemical feed tank concentrations and the stroke control adjustments to the pump.

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 ammonium chloride and the addition of the Molar Ratio Control pump with associated piping will not increase the probability of a malfunction of equipment which is important to safety because these actions will not adversely affect the operation, function or integrity of any equipment important to safety. The Chemical Feed and Handling Systems are rated as non-safety systems in a non-seismic area. The molar ratio control program will only add a small amount of chlorides to the secondary systems and the chloride levels in these systems will remain well within the limits and well below the Action Levels associated with the Secondary Water Chemistry Program requirements in the EPRI PWR Secondary Water Chemistry Guidelines.

The molar ratio pump and associated piping are designed to meet the design requirements of the chemical feed system. Therefore, the probability of a failure of the molar ratio control system is the same as failure of the existing chemical feed system.

The operation of the molar ratio control program does not affect the amount of radioactivity that may be introduced in to the secondary side systems or to the environment. The steam generator iodine partition factors remain unchanged.

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BCP 700-12, Rev. 2
Steam Generator Molar Ratio Control with Ammonium Chloride Addition
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The small amounts of ammonium chloride added to condensate do not affect the operation, function or integrity of systems or components used to monitor and mitigate the consequences of radiological releases. The design of the molar ratio pump and fittings are consistent with the design of the existing chemical feed system components. The consequences of failures or malfunctions of the molar ratio pump would be no more severe than the consequences associated with the failures or malfunctions of the existing chemical feed system.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the design of the Molar Ratio Control pump system is consistent with the design of the existing chemical feed system that is designated a non-safety related system, but operates at a much smaller capacity. The Molar Ratio Control pump is installed in parallel with the existing morpholine pump 2CF02PB and injects in the same header as the morpholine pump. Failure or malfunction of the molar ratio control pump and associated piping would result in conditions the same as failures or malfunctions of the existing chemical feed system pumps and components or systems. Secondary plant chemistry is maintained within existing chemistry guidelines, procedures and limits and is closely monitored for proper molar ratio control.
3. The margin of safety, as defined in the Bases for any Technical Specification is not reduced because the Secondary Water Chemistry Program is described under Section 5.5.10 of the Administrative Controls Section of the Technical Specifications. This program provides controls for monitoring secondary water chemistry to inhibit steam generator tube degradation. The program is consistent with and developed from the EPRI Secondary Water Chemistry Guidelines and includes identification of sampling schedules for critical variables and control points for these variables i.e., steam generator blowdown chlorides. Molar ratio control is implemented to mitigate the corrosive effects of deposits with the steam generator crevices. The molar ratio control program governed by procedure BCP 700-12 meets the requirements of the EPRI Secondary Water Chemistry Guidelines. Plant operation with molar ratio control remains unaffected and all secondary chemistry parameters will remain within the range of normal operating limits specified in station procedures and the EPRI guidelines.

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6G-00-0016
BOP FW-M1
Main Feedwater System Valve Lineup

DESCRIPTION:

The proposed activity is a revision to procedure BOP FW-M1 Rev. 15, and Diagram M-36, Sheet 3 (UFSAR 10.04-01, Sheet 6), changing the position of 1/2 FW059 from open to closed. The effect of the proposed activity is minimal. The effect of changing the valve position has minimal impact as the procedure will direct the 1/2FW059 valve to be opened at the appropriate time to ensure positive control of fluid flow through the pump. 1/2FW059 valves are only required to be open when the Startup Feedwater pump is operating, and the opening of the valve will ensure positive control of when the pump is placed in service to avoid inadvertent pump rotation, which can cause pump damage/binding due to differential thermal expansion. The proposed activity will maintain 'Green Board' Concept for the Main 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 proposed activity will not affect the ability of any equipment to perform its intended design function, is not creating any different types of malfunctions, nor directly affect any accident. The Start Up feedwater pumps will be unaffected by this change, as they will still be governed by procedural control, to ensure correct valve lineup prior to their operation. Consequences are unaffected due to the fact that the change will not affect the operation of the Start-up feedwater pumps. The pump will still be able to operate as designed, per approved procedures.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity changes the Mechanical-Lineup position of 1/2FW059 to closed. This does not affect the startup feedwater pump, when the pump is operating, the valves are open as designed. Due to this fact no accident or malfunction of a different type is created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because startup feedwater pump is not a Technical Specification related piece of equipment. Therefore, no margin of safety described in the Technical Specifications will be reduced due the proposed activity. However, the operation of the Start-up feedwater pump will still be governed by approved procedures to ensure its safe operation.

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6G-00-0029

Delete Procedure 1(2)BOSR XFP-M1
New Procedures 1(2)BOSR XFP-Q1; 1(2)BOSR XFP-R1

DESCRIPTION:

The proposed activity deletes existing procedures 1(2)BOSR XFP-M1, Revision 2, "Unit 1(2) Fire Hazards Panel Instrumentation Monthly Surveillance," splitting the surveillance into new quarterly and new 18 month procedures. The new quarterly surveillance procedures 1(2)BOSR XFP-Q1 "Fire Hazards Panel Instrumentation Quarterly Surveillance," continues to perform channel checks on "normally energized" instruments quarterly, instead of the previous monthly frequency. Normally de-energized instruments will be channel checked every 18 months in new procedure 1(2)BOSR XFP-R1 "Fire Hazards Panel Instrumentation 18 Month Surveillance". Proposed new procedures 1(2)BOSR XFP-R1 will incorporate existing procedures 1(2)BOSR XFP-M1, Revision 2, in their entirety. The proposed new procedures will perform channel checks on all Fire Hazards Panel (FHP) instruments every 18 months.

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 activity does not change the occupancy, fire hazards or ignition sources, or the detection or suppression capability in the area. The quarterly channel checks do not affect any instrument and the activity cannot cause a reactor trip. The 18 month channel check introduces risk of a reactor trip when the transfer switch for the steam generator pressure and pressurizer pressure and level instrument channels are placed in the FIRE position. However the proposed activity extends the frequency this action is taken from monthly to once every 18 months, reducing the level of risk. Therefore the probability of occurrence of the transient is not increased. The action taken by the operator and the alignment of equipment is not changed from that of the current procedure. The consequence of a design basis fire or other transients that occurs during the performance of the proposed procedures are not changed from those of the current procedure. Therefore, the consequence of an accident or transient is not increased by the proposed activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity will perform channel checks on all FHP instruments every 18 months and on selected instruments quarterly. Currently, the procedures are performed monthly for all instruments. The procedure steps are only changed editorially to allow the procedure to be performed at quarterly and 18 month frequencies. The action taken by the operator and the alignment of equipment is not changed from that of the current procedure. None of the proposed changes to the procedures affect availability of equipment or how it operates. Therefore, the possibility of an accident or transient of a different type is not increased.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by the proposed activity.

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6G-00-0038
CC-AA-308, Rev. 0
Control and Tracking of Electrical Load Changes

DESCRIPTION:

Implementation of procedure CC-AA-308, Rev. 0 at Byron Station. This procedure provides a method for control, tracking and evaluation of electrical load changes, including additions. This will allow evaluation of such changes for their impact on the electrical Auxiliary power systems. Procedure CC-AA-308 provides process improvement in the control of electrical load changes. Administrative controls are established by this procedure which clarify the situations which require revision to the Auxiliary power system 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 implementation of procedure CC-AA-308 will assure adequate supplies of electrical power. It will not impact the initiators of design basis events. Since this procedure does not challenge the function of the affected SSCs, the probability of occurrence or any accident or transient is not increased. Procedure CC-AA-308, Rev. 0 requires evaluation of Auxiliary power system adequacy in response to any load additions, deletions or system changes. This will identify any system changes which could lead to equipment failures or malfunctions. Since this activity does not introduce new equipment or affect equipment failures, no new failure modes are created.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because procedure CC-AA-308, Rev. 0, evaluates the impact of changes to the electrical Auxiliary power system. This assures adequacy of the electrical power supplies to the SSCs. Therefore, there is no possibility of creating an accident or transient of a different type other than those evaluated in the UFSAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by the implementation of procedure CC-AA-308, Rev. 0.

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6G-00-0041
MA-AA-OA-3-00031 & MA-AA-OA-2-00011

DESCRIPTION:

The proposed change is:

- the implementation of procedure MA-AA-OA-3-00031, Revision 0
- the implementation of procedure MA-AA-OA-2-00011, Revision 0
- the replacement of procedure MA-AA-7-0011-8 with MA-AA-OA-2-00011, Revision 0

Procedures MA-AA-OA-3-00031, Revision 0, "Nuclear Operational Analysis Department Testing of Relays" and MA-AA-OA-2-00011, Revision 0, "Calibration of Protective Relays" were revised to standardize work practices, enhance fit, form, and function and to correct editorial errors. Procedure MA-AA-7-0011-8, Revision 0 was replaced with procedure MA-AA-OA-2-00011, Revision 0.

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 there is no adverse effect to the probability or consequences of an analyzed accident or a malfunction created by the implementation of this administrative process.
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 since the procedures proposed are administrative, the possibility of an accident or malfunction not previously analyzed is not increased.
3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the proposed change does not affect any specified Technical Specification Parameters.

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6G-00-0043
1(2) BVSR AF-1AA, 1(2) BVSR AF-1AB, AF-1BA, AF-1BB
Diesel Aux. Feed Pump Battery Capacity Tests

DESCRIPTION:

The proposed activity is a new site procedure that performs a battery capacity test on one of two batteries in one of two battery banks for the Auxiliary Feedwater (AF) Diesel-Driven Pump. The new procedure will minimize diesel-driven AF pump unavailability time by allowing the pump to remain operable while performing the single battery capacity test. The effect of the proposed activity will allow the diesel-driven AF pump to automatically start in the event of a safeguards actuation or ATWS Mitigation System signal by maintaining a minimum of one bank (2 batteries) and an additional battery from the other bank during the test. The previous surveillance methodology tested one bank (2 batteries) at the same time which made the diesel-driven AF pump inoperable for the duration of the test.

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 AF system or the activity of performing an AF battery capacity test are not accident initiators for any of the accidents or transients.

The proposed activity does not result in an increase of dose to the public or the plant operators from an accident or transient because the functions of the AF system are not changed. The proposed activity increases the availability of the diesel-driven AF pump during routine battery capacity testing in the event that a safeguards or ATWS mitigation signal was received which will allow the system to perform its design function.

The diesel-driven AF pump failure modes have not changed. The proposed activity reduces the probability of occurrence of a malfunction of equipment important to safety because the diesel-driven AF pump availability is increased.

The design of the AF system considered the worst case failure in the system. The consequences of a malfunction of equipment important to safety remain unchanged.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the AF system provides a mitigating function in the event of an accident or transient. The AF system is designed to provide adequate feedwater to an unfaulted steam generator in the event of any single passive or active failure. If the diesel-driven AF pump failed in some way, the other fully redundant and diverse train would provide the required feedwater to the unfaulted steam generators. Any AF system failure is bound by the current design.

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6G-00-0043

1(2) BVSF AF-1AA, 1(2) BVSF AF-1AB, AF-1BA, AF-1BB

Diesel Aux. Feed Pump Battery Capacity Tests

(Cont'd)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because availability of the diesel-driven AF pump will be increased during routine battery capacity testing. Previous battery capacity testing made the diesel-driven AF pump inoperable due to testing two of four batteries at the same time. The proposed activity will test only one of four batteries so that the diesel-driven AF pump may remain available during the testing. This is based on results of calculation BYR 97-193 "Battery Sizing for the Byron and Braidwood Diesel Driven Auxiliary Feedwater Pump and the Byron Diesel Driven Essential Service Water Pump".

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6G-00-0069
MA-BY-MM-4-DS901

Installation and Removal of Water-Tight Door Temporary Flood Barriers

DESCRIPTION:

This is a new procedure that will control installation and removal of a watertight temporary flood barrier for the Diesel Storage Tank rooms. The temporary barrier is installed in place of the watertight doors 0DSSD191, 0DSSD192, 0DSSD193, and 0DSSD194. The temporary door is designed to withstand the head of water that could be present during flooding conditions.

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 procedure does not create the possibility of a different type of malfunction of equipment important to safety. The procedure describes the administrative controls necessary to ensure that the temporary flood barrier is installed and removed correctly. The procedure also contains precautions, limitations, and prerequisites that are required to be met when using the temporary flood barrier.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this procedure provides a method to install and remove a temporary flood barrier without impacting systems and will ensure that the plant is maintained within the design basis as evaluated in the SAR. Therefore, accidents or malfunctions of a different type other than evaluated in the SAR are not created. Because the temporary flood barrier was designed to meet the same flooding conditions as the original watertight door, there is no possibility of the occurrence of an accident or malfunction of a type different than those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the temporary installation of the temporary flood barrier per procedure MA-BY-MM-4-DS901 does not affect any parameters upon which Technical Specifications are based.

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6G-00-0081
1/2BOSR 4.3.1-1

Unit 1 & 2 Reactor Coolant System Pressures/Temperature Limit Surveillance

DESCRIPTION:

Change the administrative limit for heatup and cooldown from 50°F/hr to the Technical Specification limit provided the following restrictions, which ensure UFSAR requirements are maintained, are satisfied:

1. RCS Temperature must not reach 425°F prior to 2.5 hours following reactor shutdown.
2. RCS temperature decrease to 340°F to support Residual Heat Removal (RHR) operation must not occur prior to 4 hours following reactor shutdown.
3. If the opposite unit is undergoing a cooldown following a LOOP/LOCA event, then unit cooldown rate is limited to 50°F/hr.
4. If unit cooldown is being accomplished by means of Auxiliary Feedwater (AF) utilizing Essential Service Water (SX) as a suction source, cooldown is restricted to 50°F/hr.
5. With no Reactor Coolant Pumps (RCPs) running, unit cooldown is restricted to 50°F/hr.

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 cooldown limits are not derived from DBA analyses. They are prescribed during normal operation to avoid encountering pressure, temperature, and temperature rate of change conditions that might cause undetected flaws to propagate and cause nonductile failure of the RCS boundary. Since the procedures still retain the requirement to operate within the established and analyzed cooldown limits, the removal of the administrative limits cannot increase the probability of a LOCA. Since restrictions are imposed to maintain UFSAR assumptions, there is no increase in the probability of a malfunction of equipment.

All pertinent UFSAR assumptions remain satisfied. The UFSAR assumption for decay heat load at 2.5 hours following reactor shutdown, to bound the maximum RCS temperature at which RCS pressure would be low enough to allow isolation of the SI Accumulators, is still maintained. In addition, the non-LOCA unit's Ultimate Heat Sink UFSAR assumptions are maintained which ensure the LOCA unit's fission product barriers are protected should a loss of offsite power occur to both units and the Ultimate Heat Sink become the source of water for the Auxiliary Feedwater system for both units. In this case, adequate inventory and makeup to the Ultimate Heat Sink exists if the unaffected unit's cooldown rate is limited to 50°F/hr. The LOCA unit's consequences, therefore, are not increased by the proposed changes.

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6G-00-0081

1/2BOSR 4.3.1-1

Unit 1 & 2 Reactor Coolant System Pressures/Temperature Limit Surveillance
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the Technical Specification RCs Pressure/Temperature limits are analyzed to prevent the propagation of a reactor vessel flaw and therefore prevent a rupture of the reactor vessel. Maintaining the Technical Specification RCS cooldown limits ensures the possibility of a fracture of the reactor vessel remains negligible.

Within the restrictions of the proposed procedure changes, allowing the heatup and cooldown rate to exceed 50°F/hr does not impact the Reactor Vessel or RCS piping as 100°F/hr is the design heatup and cooldown rates as stated in the PTLR and discussed in the UFSAR. The Ultimate Heat Sink still functions as designed to remove decay heat and cool those components that function to maintain the integrity of the fission product barriers. The Auxiliary Feedwater system still functions as designed and the restrictions of the proposed changes ensures that this system will always have a reliable suction source to allow for feeding the steam generators and removing decay heat. The proposed changes are within the design requirements and capabilities of the RH system. The proposed changes reflect the UFSAR assumption so that the design of the ECCS system is met and maintained.

The proposed changes are within the design of the systems and within Tech Spec limits and requirements. Since all plant equipment will be operated within their design constraints and in a normal manner, the possibility or malfunction other than previously evaluated is not created.

3. The margin of safety as defined in the basis for any Technical Specification, is not reduced because the proposed changes restrict heatup and cooldown rates to those allowed by Technical Specification 3.4.3 and UFSAR assumptions. The only change is the elimination of administrative requirements. The Ultimate Heat Sink LCO (3.7.9) and UFSAR Section 9.2.5.3.5 contain limits to ensure Ultimate Heat Sink continued readiness to perform its design function. This change does not affect these limits. The Accumulator LCO (3.5.1) and UFSAR Section 6.3.2 contain limits to ensure the SI Accumulators can perform their design function. This change does not affect these limits. Since all explicit limits and implicit assumptions remain satisfied, Technical Specification margin of safety is not reduced.

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6G-00-0088

MA-BY-MM-4-RC901

Installation, Removal of Type W-3 Steam Generator Nozzle Dam(s) for Use in Byron Unit 1

DESCRIPTION:

The proposed activity is to implement a new station procedure that provides instructions for installation and removal, testing, operation and maintenance of NES type W-03 Steam Generator Nozzle Dams for use in Byron Unit 1.

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 activity does not change any plant component, system or structure. The nozzle dam is a temporary tool and is removed at the completion of refueling and steam generator activities. The installation and operation of nozzle dams in the steam generator do not adversely affect malfunctions of equipment important to safety. The existing station procedures provide the necessary guidance to mitigate the consequences of a loss of RH or a shut down LOCA. In addition, testing and calculation have verified the integrity of the nozzle dam following accident conditions. No unanticipated radiological consequences are affected.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the use of the nozzle dam does not require modification of any portion of the pressure boundary nor alter the operation of the steam generator. No additional equipment is introduced. The nozzle dam does not adversely affect any portion of the pressure boundary. The nozzle dam will not adversely affect operation or qualification of equipment important to safety. No new failure modes have been identified.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not affected by proposed change to implement a station procedure MA-BY-MM-4-RC901.

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6G-00-0105
BAP 1100-3, BAP 1100-3A3, OBOL 10.g

DESCRIPTION:

The barriers listed in BAP 1100-3A3, "Pre-Evaluated Plant Barrier Matrix," have been reviewed, and pre-evaluate compensatory actions for impairment of these barriers have been developed and provided in the matrix. Also, the previously pre-evaluated compensatory actions for certain flooding barriers and the Main Control Room to Process Computer Room doors have been moved from procedure BAP 1100-3, "Plant Barrier Impairment (PBI) Program," to BAP 1100-3A3. The effect of this pre-evaluation of the compensatory actions required for impairment of the plant barriers listed on the matrix is to eliminate the duplicative evaluation of the barriers each time they are impaired. This proceduralizes the compensatory action reviews that have been performed on an as-needed basis in the past.

Several corrections were made to the matrix based on this review. A number of barriers which were not previously on the list were evaluated and added.

The previous criteria for determining when a PBI is not required was reworded for simplification. In addition, the major types of work on doors was evaluated (BAP 1100-3, Table A) and work which was determined to not impair the door has been exempted from the requirements of the Plant Barrier Impairment process.

Finally, the title of BAP 1100-3A3 was changed from "Door Matrix" to "Pre-Evaluated Plant Barrier Matrix," as the matrix contains some barriers which are not doors (floor plugs, hatches, roof plugs, etc.).

OBOL 10.g, "LCOAR Fire Rated Assemblies TRM LCO # 3.10.g" was revised to state "Initiate Plant Barrier Impairment Permit as necessary, in accordance with NSP CC-AA-201 [Plant Barrier Control Program] and BAP 1100-3" in order to make it dovetail with the changes to the Matrix.

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 not increased by the changes made in these procedures because the barriers have been pre-reviewed for impact on operability of essential equipment and appropriate compensatory actions are required to maintain the plant within its design basis. Therefore, there can be no increase in the probability of an accident. None of these barriers are initiators of an accident.

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6G-00-0105
BAP 1100-3, BAP 1100-3A3, OBOL 10.g
(Cont'd.)

The consequences of an accident will not be increased. The listed barriers which can affect accident consequences have been pre-reviewed for impact on operability of essential equipment. Appropriate compensatory actions are required to either maintain the plant within its design basis, or return the plant to within its design basis before the

barrier can be challenged. If personnel are expected to perform actions to compensate for a degraded barrier they must be dedicated to the action (no other duties), equipment must be readily available, and the action must be capable of performed before the barrier is challenged. In some instances, personnel are expected to close a door if required. This is considered to be equivalent to that situation during normal ingressing or egressing through the door and therefore is not considered to increase the consequences of an accident.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because these procedures incorporate the results of a review of the impact of barrier degradation on systems and functions to ensure that the plant is maintained within the design basis as evaluated in the SAR. Therefore, accidents or malfunctions of a different type other than evaluated in SAR are not created. All required regulatory actions, such as compensatory security watches as required by the Security Plan, fire watches as required by the Fire Protection Plan and the Technical Requirements Manual (TRM), and isolations/Out of Services (VA filter plenum doors), will continue to be performed. However, the requirement to process a PBI Permit for those barriers that are known to have no regulatory requirements, or only require a Security or Fire Watch, or a simple isolation/Out of Service (VA filter plenum doors) is exempted. Instead, the working group is required to ensure that the appropriate watch/isolation/OOS is provided before impairing the door. If personnel are expected to perform actions to compensate for a degraded barrier they must be dedicated to the action (no other duties), equipment must be readily available, and the action must be capable of performed before the barrier is challenged. Because the appropriate regulatory actions are still required to be performed, there is no possibility of the occurrence of an accident or malfunction of a type different that those evaluated in the SAR. In some instances, personnel are expected to close a door if required. This is considered to be equivalent to the situation that exists during normal ingressing or egressing through the door and is therefore not considered to be a malfunction of a different type.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by this change.

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6G-00-0141
MA-BY-IM-1-LM901
Surveillance Calibration of Loose Parts Monitoring System Accelerometers

DESCRIPTION:

The purpose of this safety evaluation was to revise surveillance procedure MA-BY-IM-1-LM901. The procedure was revised to remove steps that were performed during the channel calibration of the Byron Station Loose Parts Monitoring System. The steps removed were for the disconnection of the loose parts monitoring system's accelerometers. During design modification that upgraded the system, Technical Requirements Manual, it was determined that the accelerometers do not need to be disconnected in order to perform the channel calibration required by the Byron Station TRM Section 3.3.d.3.

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 activity performed was a revision to a surveillance procedure for an activity that is not described in the SAR. The does not affect the function or operation of any equipment important to safety and therefore will not change the probability or consequences of any malfunction previously analyzed.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the activity was a revision to a procedure for a process that is not described in the SAR. The activity did not affect any previously analyzed malfunctions or accidents that are described in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the activity was for plant components that are not contained in any part of the Technical Specifications or any Technical Specification Bases. The activity was a revision of a surveillance procedure for a process that is not described in the SAR.

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6G-00-0146
CC-AA-409 & CC-AA-410, Rev. 1

DESCRIPTION:

CC-AA-409 "Maintenance Specification Selection and Installation of Non-Safety Related, Low Temperature Flexible Hose," describes the requirements to select and install non-safety related flexible hose on low temperature piping systems on piping systems from ½" to 2" nominal pipe diameter. CC-AA-410 "Maintenance Specification Selection and Installation of Safety Related, Low Temperature Flexible Hose," provides general instructions to select and install safety related flexible hose on low temperature, ASME piping systems of ¾" or smaller nominal pipe diameter and non-ASME piping systems of 2" or smaller nominal pipe diameter. (Rev. 0 of these procedures was never reviewed/approved at Byron. Therefore, Rev. 1 of these procedures are considered to be totally 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 CC-AA-409, Rev. 1, and CC-AA-410, Rev. 1 are applicable to the installation of flexible hose on low temperature piping systems. The installation criteria of Sections 5 and 6 and the associated details ensure that flexible hose installed without specific Engineering review do not impose pressure and temperature limits less than the design limits of the piping system. Also, the construction of additional supports are provided for to protect against vibratory loads and ensure that no adverse impacts result to the piping system. Flexible hose installed outside the criteria of Section 5 and 6 or the associated details require detailed Engineering review and a safety evaluation or screening under 10CFR50.59. The Engineering review will ensure that installation of flexible hose is only performed within the design load criteria of the affected SSC, including Safe Shutdown Earthquake requirements if applicable. Flexible hose installed under this procedure either meets acceptable pre-reviewed criteria or meets a detailed Engineering review to ensure applicable design criteria are met.

The installation of flexible hose under CC-AA-409, Rev. 1, and CC-AA-410, Rev. 1, is controlled as described above such that no functional changes or operational restrictions are created on SSCs required to perform an accident mitigation function. Hydraulic losses are not increased due to the flex hose installation, as the next larger size of flex hose is used. The stainless steel flex hose is compatible with plant systems for which this procedure is applicable. The review and evaluation processes incorporated in this procedure determine operational limitations to ensure that the effected SSCs are available to support and perform their accident mitigation function when required by the UFSAR, Technical Specifications, and owner-controlled documents. Therefore, the implementation of changes in accordance with these procedures will not increase the consequences of any UFSAR accident or transient.

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6G-00-0146
CC-AA-409 & CC-AA-410, Rev. 1
(Cont'd.)

Because the installation of flexible hose under the controls specified in CC-AA-409, Rev. 1, and CC-AA-410, Rev. 1, creates no new failure mechanisms or modes and because SSC qualification, design, and operational criteria are maintained, there is no increase in the consequences of a malfunction of equipment important to safety by implementing this proposed change.

The evaluation and installation processes/criteria incorporated in CC-AA-409, Rev. 1, and CC-AA-410, Rev. 1, precludes impact on the affected SSC. Flexible hose is installed within the qualification, design, and operational criteria for this equipment. Therefore, the probability of occurrence of any SSC malfunction as a result of flex hose installed under this procedure 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 no new failure mechanisms or modes are created by the installation of flexible hose under NSP CC-AA-409, Rev. 1, and CC-AA-410, Rev. 1. The evaluation and installation criteria in the procedure maintains SSC structural integrity and functionality. Therefore, installation of flex hose in accordance with these procedures do not create any condition or circumstance which would result in a different malfunction or failure mechanism than that evaluated in UFSAR, Technical Specifications, or owner-controlled documents.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because flexible hose installed under the controls of CC-AA-409, Rev 1, and CC-AA-410, Rev. 1, does not impact any Technical Specifications. Structural Integrity, as described in Technical Requirements Manual (TRM) 3.4.f, is not impacted by this procedure.

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6H-00-0001
OBOL 3.10.i Rev. 0 (Deletion)
OBOL 10.i (Rev. 1) LCOAR DC Emergency Lighting TRM LCO # 3.10.i

DESCRIPTION:

The originally proposed activity makes changes to the surveillance procedures associated with Fire Protection features of the plant. The proposed changes affect the frequency that these existing procedures are performed and in some cases, remove components from the scope of the procedure. The affected procedures do not change the configuration of any plant system. The proposed activity changes the surveillance requirements of Section 3.10, of the Technical Requirements Manual (TRM). The Fire Protection Report (FPR) is also revised to discuss deviations from the NFPA fire code and Appendix R because of the modified surveillance frequencies. The additional change necessitating this validation is the renumbering of one of the originally specified procedures to conform to station conventions.

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 change to the TRM, FPR, and associated surveillance procedures does not change the occupancy or increase the fire hazards in any plant fire zone. No ignition sources or combustibles are added or altered as a result of the proposed activity. Fire Protection features are not altered by the proposed activity, nor are compensatory actions changed if a feature is taken out of service. The proposed activity only affects the interval surveillance procedures are performed and specific components tested. These procedures are not used or credited to mitigate a design basis fire. Therefore, the proposed activity does not increase the probability of occurrence or the consequence of a design basis fire or malfunction of equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity makes changes to the surveillance procedures associated with Fire Protection features of the plant. The proposed changes affect the frequency that these existing procedures are performed and in some cases, remove components from the scope of the procedure. The affected procedures do not change the configuration of any plant system. The test/inspection method, system alignment, and required actions of any procedure is not changed by the proposed activity. Therefore, the possibility of an accident or malfunction of a different type is not created.

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6H-00-0001
OBOL 3.10.i Rev. 0 (Deletion)
OBOL 10.i (Rev. 1)
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because there is no margin of safety associated with the Administrative Technical Specification requirement for procedures to implement the approved Fire Protection Program. The proposed changes do not alter the implementation of the approved Fire Protection program as described in Technical Specification 5.4.1. These changes do not affect any margin associated with the approved Fire Protection Program.

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6H-00-0003
OBOSR 10.B.6-1, Rev. 4
Diesel Fire Pump Monthly Surveillance

DESCRIPTION:

The originally proposed activity makes changes to the surveillance procedures associated with Fire Protection features of the plant. The proposed changes affect the frequency that these existing procedures are performed and in some cases, remove components from the scope of the procedure. The affected procedures do not change the configuration of any plant system. The proposed activity changes the surveillance requirements of Section 3.10 of the Technical Requirements Manual (TRM). The Fire Protection Report (FPR) is also revised to discuss deviations from the NFPA fire code and Appendix R because of the modified surveillance frequencies. The additional change necessitating this validation is the renumbering of one of the originally specified procedures to conform to station conventions.

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 change to the TRM, FPR, and associated surveillance procedures does not change the occupancy or increase the fire hazards in any plant fire zone. No ignition sources or combustibles are added or altered as a result of the proposed activity. Fire Protection features are not altered by the proposed activity, nor are compensatory actions changed if a feature is taken out of service. The proposed activity only affects the interval surveillance procedures are performed and specific components tested. These procedures are not used or credited to mitigate a design basis fire. Therefore, the proposed activity does not increase the probability of occurrence or the consequence of a design basis fire or malfunction of equipment.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity makes changes to the surveillance procedures associated with Fire Protection features of the plant. The proposed changes affect the frequency that these existing procedures are performed and in some cases, remove components from the scope of the procedure. The affected procedures do not change the configuration of any plant system. The test/inspection method, system alignment, and required actions of any procedure is not changed by the proposed activity. Therefore, the possibility of an accident or malfunction of a different type is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because there is no margin of safety associated with the Administrative Technical Specification requirement for procedures to implement the approved Fire Protection Program. The proposed changes do not alter the implementation of the approved Fire Protection program as described in Technical Specification 5.4.1. These changes do not affect any margin associated with the approved Fire Protection Program.

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6H-00-0009
BAP 1400-6

Technical Specification Limiting Condition for Operational Action Requirements (LCOAR)

DESCRIPTION:

This change encompasses procedure changes that incorporate the revised station methodology with respect to Limiting Condition for Operations (LCO) 3.0.6.

When Byron Station initially implemented Technical Specification (TS) Amendment 106 Improved Technical Specification (ITS), the station methodology regarding LCO 3.0.6 was prescribed in Technical Requirements Manual (TRM) Appendix 0 – Safety Function Determination Program (SFDP) and did not take complete advantage of the allowance made by the Technical Specification. For example, when a supported system LCO was not met solely due to a support system LCO not met, the station took the more restrictive position that the supported system LCO would still be entered, but entry would be delayed by the completion time allowed for the support system.

Subsequent to ITS implementation, Byron Station reviewed and revised the methodology for applying LCO 3.0.6 to preclude any entry into supported system LCO, provided no loss of safety function exists (Reference Safety Evaluation 6G-99-0111). Revision 2 was made to TRM Appendix 0 and provides the maximum flexibility to the station allowed by the Technical Specification LCO 3.0.6.

This safety evaluation is to support changes to Byron Station procedures (i.e., BOLs and its governing BAP) that apply the revised methodology for calculating delayed LCO entry for a single support system inoperability.

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 no accidents are applicable; therefore, neither the consequences of an accident nor the probability of occurrence of an accident will increase. This proposed change is to the station's methodology for implementing the allowances of Technical Specification LCO 3.0.6 as amended by Amendment 106.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this proposed change is to the station's methodology for implementing the allowances to Technical Specification LCO 3.0.6 as amended by Amendment 106. Changing the methodology will not create the possibility of an accident or transient.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed change implements Technical Specification LCO 3.0.6 exactly as written and approved by the NRC in Amendment 106.

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6H-00-0019
Various Procedures (DCP 9800140)

DESCRIPTION:

Revise various procedures associated with the Spent Fuel Pool Re-Rack modification and the associated Technical Specification amendment. These procedures either describe the new racks or implement the new Technical Specification limits in support of the new racks.

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged. The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

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6H-00-0019
Various Procedures (DCP 9800140)
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident.

The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this reracking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulic, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage, the proposed changes do not involve a reduction in the margin of safety.

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10 CFR 50.59 Report
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6H-00-0040
BFP FH-33, Rev. 1
Operation of the Tri-Nuclear Underwater Filtration Systems

DESCRIPTION:

Revise BFP FH-33, Operation of the Tri-Nuclear Underwater Filtration Systems, Rev 1, to change the requirements for placing Tri-Nuke filter units on top of spent fuel racks. The new Holtec spent fuel racks installed under DCP 9800140 have more conservative requirements for placing loads on top of the racks. Specifically, loads of up to 2000 lbs. may only be placed on racks, which are empty, and the load is supported by at least 3 storage cells.

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged. The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

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6H-00-0040
BFP FH-33, Rev. 1
Operation of the Tri-Nuclear Underwater Filtration Systems
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident.

The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this reracking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulics, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage, the proposed changes do not involve a reduction in the margin of safety.

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6H-00-0065
1BVSr 5.2.4-5 & 6

Unit 1 Train A/B ASME Surveillance Requirements for Centrifugal Charging Pump
1 A/B and Chemical and Volume Control (CV) System Valve Stroke Test

DESCRIPTION:

This Validation Screening was used to revise the affected ASME testing surveillances 1BVSr 5.2.4-5 and 6. This revision changed the miniflow indication instrument from "1FE-047" to "1FI-047" as installed per Design Change Package (DCP) 9700729. Also, the precaution, which describes the use of ultrasonic flowmeters, will be removed.

A previously omitted reference for BOP CV-29a "Operation of the CV Pump on Recirculation (Unit One)" will be added to the Station Procedure section.

Also, the prerequisites describing the personnel qualifications are removed from this procedure.

Remove the note from Table 1 of 1BVSr 5.2.4-5 (only, already removed from 1BVSr 5.2.4-6) which is no longer required.

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 original probabilities and consequences described within the Safety Evaluation 6G-99-0175, remain valid and unchanged. This procedure change will not increase the probability of operator action, operator error, test sequence error or a malfunction or mechanical failure of the CV or other plant systems.

Also, the administrative changes will not reduce the capability of the CV system to operate and mitigate accidents.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this procedure change reflects those described within the original evaluation. The additional changes did not adversely affect the operation of the CV or any other system. No unanalyzed conditions have been introduced by these changes and the SAR documents remain bounding and unchanged.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this procedure revision for the described design change and the additional administrative changes will not affect the Technical Specification Bases. The charging pump operation, including seal injection will not change the current margin of safety.

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10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0079
BAP 560-1, Rev. 18
Primary Chemistry Program Description

DESCRIPTION:

The procedure revision of primary chemistry administrative program due to Technical Specification changes associated with installation of new spent fuel racks.

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 on primary chemistry was revised to match a new Technical Specification change and there is no impact on any plant system or equipment based on the above evaluation. The procedure does not interfere or detract from previous reviews for safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the procedure does not change the original intent or actions of this procedure to provide administrative guidance on primary chemistry issues.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the primary chemistry issues addressed in the procedure do not change the intent or actions of the spent fuel pool chemistry and has no impact on any margins of safety. The new spent fuel racks do not interfere or detract from previous reviews for safety as was stated in the safety evaluation.

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6H-00-0083, Rev. 1
MA-AP-EM-6-00675, Rev. 1
Temporary Bypass of Polar Crane Trolley Overtravel Limit Switch

DESCRIPTION:

This procedure will disable the trolley end of travel limit switch for the U1/U2 Polar Cranes (1/2HC01G) to allow it to travel closer to the containment building wall. The effect will be that the mechanical limits will now be limiting the movement of the polar crane as opposed to the electrical limit switch. However, administrative control in the form of a placard placed in the cab of the crane that directs the worker to hang the card on the control switch and awareness training with each crane operator will be used in order to prevent the trolley from powering into the end stops. Note: an additional spotter is not necessary because the limit disabled is physically nearest the crane operator; therefore, the crane operator is able to see the trolley movement in relation to the approximate location of the limit switch. The limit switch is approximately two to three feet from the end stop. This procedure may be installed for any activity that requires the polar crane hoist to achieve a position closer to the containment wall in order to support outage activities.

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 will disable the trolley end of travel limit switch for the reverse direction in order to allow the hoist to be brought closer to the containment wall for lifting various loads during the outage. This procedure will only be in affect for lifting non-critical loads. This procedure will not be installed during the lifting of critical loads, and will not affect operation of the trolley away from the limit switch toward the center of containment. Since the failure of the limit switch could result in powering into the end stops for the trolley, the procedure will not increase the probability of occurrence of a malfunction of equipment important to safety. The procedure will not be installed while lifting or moving any critical loads and will not affect the operation of the polar crane over the reactor vessel. Therefore, vessel, fuel and internals integrity will not be adversely affected by the removal of the limit in the reverse direction for the trolley. Lifting and lowering loads closer to the containment wall will be allowed based on the disabling of the track limit switch, but this will not increase the consequences of a malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because during an outage, the function of the polar crane is to remove the reactor vessel head and upper internals assembly. The only critical loads carried by the polar crane are the reactor vessel head, and upper and lower internals. There are no other loads, which, if dropped, would affect the cooling of the reactor or fuel integrity.

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6H-00-0083, Rev. 1
MA-AP-EM-6-00675, Rev. 1
Temporary Bypass of Polar Crane Trolley Overtravel Limit Switch
(Cont'd.)

When carrying the reactor vessel head, the operator is restricted in movement to the north-south directions by the high walls enclosing the steam generators. The head must therefore be dropped on the reactor vessel to effect reactor cooling or fuel integrity. The results of a load drop analysis for the RESAR-414 docket were provided in WCAP 9198, January 23, 1978. A load drop analysis for Byron/Braidwood would be very similar to that analysis. Note: this procedure will not be executed while lifting the above-described critical loads; therefore, the change will not impact the analysis. The procedure allows loads located closer to the containment wall to be lifted and lowered, but the operation of the trolley away from the wall is unchanged. Therefore, the possibility of an accident or transient different than previously evaluated is not increased. The procedure will not be executed while lifting or moving any critical loads and will not affect the operation of the polar crane over the reactor vessel. Therefore, vessel fuel, and internals integrity will not be adversely affected by the removal of the limit in the reverse direction for the trolley. In addition, the load drop analysis performed by Westinghouse that would be similar to Byron/Braidwood would not be affected. Lastly, lifting and lowering loads closer to the containment wall will be allowed based on the disabling of the track limit switch, but this will not increase the consequences of a malfunction of equipment important to safety in Modes 5, 6, or defueled.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the polar crane trolley track limit switch is not discussed in the Bases for any Technical Specification, and the penetration protection Technical Requirements Manual (TRM) Spec 3.8.a for the polar crane power feed is not affected because the power supply and its protection is not modified by the procedure.

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6H-00-0085
BOP FW-19a, 24a, M1 & BOP WG-M1

DESCRIPTION:

These procedure changes (see procedure listing below) merely reflect and make use of the changes to the plant implemented by Design Change Package (DCP) 9800539. The procedure changes use the valves and piping added under the modification to mitigate water hammer during the filling & venting and the draining & depressurizing of the Main Feedwater Pumps. The purpose of these procedure changes is the same as the purpose of the modification and is otherwise entirely consistent with the safety evaluation performed for the modification. For this reason, the original safety evaluation applies to these procedure changes as well. The original safety evaluation summary pertinent to these procedure changes follows:

The purpose of these Design Changes was to make several changes to Gland Water (WG) and Feedwater (FW) piping near the main Feedwater Pumps.

The first change is to add drains to the WG inner seal return lines from the turbine driven FW pumps and the motor driven FW Pump. The drains are located at the low elevation point downstream of the manual isolation valve at the pump.

The second change was to add a 1" bypass line around the FW recirculation lines to the condenser (1/2FW012B, C). Each bypass line will contain two isolation valves. This change is only for the turbine driven feedwater 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 an increase in heat removal accident can result from an increase in feedwater flow, decrease in feedwater temperature or steam blowdown from a broken feedwater line. The addition of the drain lines, bypass lines and the supports cannot affect the control of the feedwater pump, FW heater bypass valves or FW regulating valves such that FW flow increases or FW temperature decreases. Failure of these lines cannot result in an increase in heat removal because back flow from the Steam Generators is prevented by existing FW check and isolation valves. Feedwater temperature to the Steam Generators would increase with lower flow. The consequences of increase in heat removal accidents are bound by the consequences of a steam system piping failure. This change has no effect on the main steam system and cannot affect the consequences of the accident. The feedwater temperature and flow event consequences cannot be increased by this change since there is no ability to reduce feedwater temperature more than previously assumed in the analysis and there is no ability to increase Feedwater Flow to a higher value than assumed in the previous analysis. The new 1" diameter FW Bypass lines are in a location where a break could not cause an increase in FW flow. Therefore, there will be no increase in the consequences of this accident.

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6H-00-0085
BOP FW-19a, 24a, M1 & BOP WG-M1
(Cont'd.)

A decrease in heat removal accident could result from a loss of feedwater flow. The new lines do not increase the probability of a loss of flow since they meet system design requirements and are no more likely to fail than existing lines. The new lines are not in the flowpath to the Steam Generators and have no ability to restrict normal Feedwater Flow. The new line bypassing the valves is equipped with two normally closed isolation valves in series to provide a primary and secondary barrier against leakage to the condenser. The consequences of the decrease in heat removal events "Loss of Normal Feedwater Flow" and "Feedwater System Pipe Break" are bound by the consequences of a steam system piping failure. This change has no effect on the main steam system and cannot affect the consequences of the accident. The consequences of the Feedwater Flow accident cannot be increased since the analysis already assumes that all Feedwater Flow is lost. This change has no effect on the operation of the Auxiliary Feedwater System that functions to mitigate the consequences of the accident. Similarly, the feedwater line break accident consequences cannot be made worse since the new lines are no larger than existing lines and are located in an area where they can be isolated from the Steam Generators.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the drain and bypass lines are normally isolated and do not affect system operation. During fill and vent of an idle feedwater pump, the drain and bypass lines will be used to ensure that the pump is ready for operation. Mispositioning of these valves would result in leakage and a loss of a small percentage of normal FW flow. Both of these events were previously evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this change does not affect equipment addressed by the Technical Specifications and does not affect the Bases of any Technical Specification.

Procedure Listing:

BOP FW-19a	Unit One Isolation and Depressurization of a Motor Driven Feedwater Pump
BOP FW-24a	Unit One Filling and Pressurizing of Feedwater Pumps with FW System at Operating Temperature and Pressure
BOP FW-M1	Main Feedwater System Valve Lineup
BOP WG-M1	Gland Water System Valve Lineup

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6H-00-0098
Various Procedures Listed in Original Validation (DCP 9900316)

DESCRIPTION:

The proposed activity is the update of station procedures to reflect the modification to the facility as documented in Design Change Package (DCP) 9900316 and previously evaluated in safety evaluation 6G-00-0053. These procedure changes include coincidence and logic for feedwater isolation and main feedwater pump recirculation valve actuation in accordance with the modification. The procedure changes also address the changes required in testing of the logic. Since these procedures merely reflect the modification that has already been evaluated, the original evaluation bounds this activity as well. The original evaluation follows:

1. Reinstates the low average temperature (Lo Tave) interlock to Feedwater(FW) isolation on reactor trip for Feedwater valves 1FW009A-D, 1FW034A-D, 1FW035A-D, 1FW039A-D, 1FW510, 520, 530, 540, and 1FW510A, 520A, 530A, 540A. The Lo Tave interlock had previously been removed in conjunction with removal of the Feedwater bypass line check valves, 1FW078A-D, in modification M6-1-88-040. The effect of this change will be that on reactor trip a feedwater isolation signal will not be generated until the average reactor coolant temperature (Tave) drops to 564°F. For a typical reactor trip from full power, this will delay FW isolation approximately 16 seconds.
2. Adds an interlock to open the FW Recirculation Valves, 1FW012A-C, on reactor trip. The FW012 valves presently open on low feedwater flow. The change will result in the FW012 valves opening sooner after a reactor trip.

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 change to the logic for the Feedwater isolation valves does not change the way the valves function or operate, only the logic associated with FW isolation on a reactor trip is modified. On reactor trip the FW isolation valves will not isolate until the Lo Tave setpoint is reached. Failure of the Lo Tave signal could result in FW isolation not occurring when expected. This is prevented by use of multiple independent inputs for Lo Tave to the FW isolation interlock.

The Lo Tave interlock was originally removed from the FW isolation on reactor trip to provide an alternate method (the FW Bypass line check valves were deleted) to prevent Auxiliary Feedwater (AF) flow into the Steam Generator (SG) preheater section of the original SGs and to limit blowdown from a SG in the event of a feedline break in the upper nozzle line. The replacement SGs on Unit 1 only use one feedwater nozzle and preheater water hammer and blowdown due to break in the upper nozzle line are no longer a concern.

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Various Procedures Listed in Original Validation (DCP 9900316)
(Cont'd)

Existing seismically qualified spare relays will be used for the new interlocks. New cables will be run in existing tray. Tray loading was evaluated and the additional cables have no adverse impact. Therefore, the changes do not affect equipment failures or malfunctions.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the The Lo Tave interlock was originally part of the design and was removed as part of Modification M6-1-88-040. No new systems, structures, or components are added to the plant except new cables between panels 1PA09J, 1PA27J, 1PA10J, and 1PA28J. These cables are routed and supported seismically. No new failure modes are created. The change in control logic does not create any new modes of operation. Therefore, the proposed modification does not create the possibility of a different type of malfunction.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed change does not affect FW Isolation on SG High and SI. The change in logic for FW isolation on reactor trip coincident with Lo Tave and FW recirculation valve opening on reactor trip do not affect the basis for the margin of safety.

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6H-00-0125
RP-AA-440, Revision 1
Radiological Respiratory Protection Program

DESCRIPTION:

The proposed activity is to implement Revision 1 of the NGG procedure on Radiological Respiratory Protection. The revisions made to this procedure are:

1. Perform whole body counts/screenings, in accordance with Bioassay procedures and RP supervision.
2. Retain records in accordance with station's record management program.

The original 50.59 was utilized to change the UFSAR Appendix reference of Reg. Guide 8.15 Revision 0 to Revision 1. This activity is to implement procedures that utilize Revision 1 of Reg. Guide 8.15.

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 activity changes no system, structure or component. The activity is to implement a procedure that uses Regulatory Guide 8.15, Revision 1. Currently the UFSAR references Regulatory Guide 8.15 Revision 0. UFSAR DRP 8-091 has been submitted to change Revision 0 to Revision 1.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity changes no system, structure or component. The activity is to implement a procedure that uses Regulatory Guide 8.15, Revision 1. Currently the UFSAR references Regulatory Guide 8.15 Revision 0. UFSAR DRP 8-091 has been submitted to change Revision 0 to Revision 1.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Regulatory Guide Revision 1 reflects the requirements of 10 CFR 20. 10 CFR 20 is the standard for occupational dose and ALARA.

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6H-00-0130
Various Procedures implementing DCP 9900456

DESCRIPTION:

This change is the revision of various procedures to reflect the referenced Design Change Packages (DCP). As such, the safety evaluation performed for the DCPs fully covers the evaluation for these procedure changes.

This DCP revises window engraving for line number change from L15501 to L0627 on OPM03J box 25 Sequence of Events Recorder (SER) points and several transient stability related protective schemes.

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 identified in UFSAR Section 8.2.2, Exelon is a member of Mid American Interpool Network (MAIN). Per the MAIN guide 2, transient stability must be maintained. For that reason, several contingencies are required for operation and delivery of bulk power to the transmission systems. The proposed changes are to be done to mitigate these requirements as a result of power uprate increasing the Mega Watt (MW) output. However, it is not different than existing set-up. More contingencies are added as a result of latest study done by Transmission Planning Departments and their recommendations. Window engraving change is the result of line number change due to the addition of new Independent Power Producer (IPP) facility at Lee County. Information is similar to the existing line 15501. Engraving is to be changed to reflect new line number. No physical wiring or components are revised. There is no interface with any hydraulic systems, HVAC systems and radioactive materials handling systems, therefore the probability of accidents resulting in off-site dose is not increased. There is no interface with any equipment required for safety; therefore, there is no possibility of a malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the UFSAR has evaluated the stability trips and line outage contingencies in general (not specific) in Section 8.2.2. All specific contingencies and abnormal condition unit trips are developed by Transmission Planning Dept. on the basis of network load flows and configurations. The guidelines given in the Section 8.2.2 are followed. Adding of new Transmission Sub-Station (TSS) 937 at Lee County station will be isolated by their own breakers and protective relaying and will be coordinated for fault protection.

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6H-00-0130
Various Procedures implementing DCP 9900456
(Cont'd.)

Revising and adding several stability trips and line contingencies are not different than several existing conditions. Some more line contingencies are added as a result of power uprate but are not different than previously evaluated. Window engraving is to be changed per approved station procedures to provide accurate information to operations (well within the guidelines of Human Factors), therefore possibility for an accident or a malfunction of a different type other than previously evaluated in the SAR is not created.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the modification to be installed in the Relay House by Transmission & Design (T&D), per interface agreement, and the windows engraving revision do not affect any Technical Specifications. Also the changes are not different than the design of existing switchyard systems and line contingencies. Several new contingencies added to mitigate increase in total output to transmission system for the stability requirement of the unit and the system. Window engraving is not different than the existing program for changing windows per new mods. Therefore, the margin of safety is not reduced as a result of this change.

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10 CFR 50.59 Report
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6H-00-0147
1BVSR 9.A.2-1

Unit One Coastdown Power Profile Verification for Refueling Outage

DESCRIPTION:

The purpose of this procedure is to verify that the actual coastdown reactor power profile from Unit 1 Cycle 10 is conservative in B1R10 with respect to the calculation used to support a reduction of the decay time from 100 hours to 80 hours prior to the movement of fuel after the 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 the decrease in ICDDT does not impact the equipment or procedures used to move fuel. The decrease in ICDDT has been evaluated and the dose rates from a postulated Fuel Handling Accident (FHA) will remain less than the current design basis values in Table 15.0-11 for Byron and Table 15.0-12 for Braidwood. The increased heat load in the Spent Fuel Pool has been evaluated and found to be acceptable.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDDT. The FHB rad monitors are qualified for the radiation field associated with and ICDDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDDT to ≥ 80 hours does not impact reactivity. The proposed change does not involve a physical alteration of the plant. No new equipment is introduced, and no installed equipment is operated in a new or different manner. The proposed change does not affect the capability of the fuel handling equipment. Thus, it is concluded that the proposed change does not create a new or different kind of accident.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDDT. The FHB rad monitors are qualified for the radiation field associated with and ICDDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDDT to ≥ 80 hours does not impact reactivity.

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6H-00-0149
1BOSR 9.a.1-1, Rev. 2, BAP 370-3, Rev. 28, 1BOL 9.a, Rev. 2

DESCRIPTION:

Provide for procedure changes based on the changes in the Core Decay Time from ≥ 100 hours to ≥ 80 hours for outage B1R10 and ≥ 87 hours for outage A2R08. See procedure listing at end of summary.

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 decrease in ICDT does not impact the equipment or procedures used to move fuel. The decrease in ICDT has been evaluated and the dose rates from a postulated Fuel Handling Accident (FHA) will remain less than the current design basis values in Table 15.0-11 for Byron and Table 15.0-12 for Braidwood. The increased heat load in the Spent Fuel Pool has been evaluated and found to be acceptable.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDT. The FHB rad monitors are qualified for the radiation field associated with and ICDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDT to ≥ 80 hours does not impact reactivity. The proposed change does not involve a physical alteration of the plant. No new equipment is introduced, and no installed equipment is operated in a new or different manner. The proposed change does not affect the capability of the fuel handling equipment. Thus, it is concluded that the proposed change does not create a new or different kind of accident.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDT. The FHB rad monitors are qualified for the radiation field associated with and ICDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDT to ≥ 80 hours does not impact reactivity.

Procedure Listing:

1BOSR 9.a.1-1	Unit One Decay Time Surveillance
BAP 370-3	Administrative Control During Refueling
1BOL 9.a	LCOAR Decay Time TRM LCO # 3.9.a

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10 CFR 50.59 Report
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6H-00-0167
BOP SX-13, Rev. 5
Initiating and Terminating Essential Service Water System Blowdown

DESCRIPTION:

Revise BOP SX-13 to delete reference, limitation and action, and main body step to maintain blowdown valves six turns open or less, and incorporate additional changes to support limitations and actions, precautions and prerequisites. Other minor changes are facilitating procedure enhancement and performance.

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 consequences of an accident or a malfunction of equipment important to safety previously evaluated in the SAR is not increased because OSX161A/B were limited to six turns open or less to ensure the UFSAR Limit of 300 gpm of Blowdown is not exceeded. Design Change Package (DCP) 9700732 installed flow-restricting orifices, which maintain flow less than or equal to the 300 gpm limit, thus maintaining the required flow rate restrictions.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the UFSAR is updated per UFSAR Draft Revision Package (DRP) 7-258 to identify the flow restricting orifices and deleting the requirements of limiting flow through valve positioning.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the identified criteria as implemented in the proposed changes of the procedure are in accordance with the guidelines and requirements of the UFSAR.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0186
Various Procedures Implement DCP 9900174

DESCRIPTION:

Procedure revisions resulting from the replacement of the Seismic Monitoring Instrumentation cabinet per Design Change Package (DCP) 9900174.

SAFETY EVALUATION SUMMARY:

The procedure revisions are reflective of specific attributes of the newly installed Seismic Monitoring Equipment and do not change or alter any perspectives or intent of the previously established surveillance or alarm response criteria.

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 Seismic Monitoring Instrumentation does not interface with any Safety Related Equipment. The required procedure revisions are changes that reflect specific attributes of the new instrumentation and maintain alarm acknowledgement and surveillance criteria in accordance with previously established standards. Therefore, the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety are not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity is for updating procedures that are not described in the SAR. The changes reflect previously established criteria with applicability to the unique aspects of the newly installed equipment.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Operability of the Seismic Monitoring Instrumentation is addressed in Byron's Technical Requirements Manual, Section 3.3.b. The procedure revisions reflect the requirements of Byron's TRM, therefore, the margin of safety as defined in the Bases for any Technical Specification is not reduced.

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<u>SPECIAL PROCESS PROCEDURES</u> <u>(SPP)</u>	
1.	6G-98-0028
2.	6G-98-0059
3.	6G-98-0235
4.	6G-98-0295
5.	6G-99-0069
6.	6G-00-0056
7.	6G-00-0087
8.	6G-00-0161
9.	6H-00-0090
10.	6H-00-0100
11.	6H-00-0122
12.	6H-00-0152

Byron Station
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6G-98-0028
SPP 97-060

DESCRIPTION:

This activity was performed to ensure restoration of Temporary Alteration 97-1-029 was completed to restore the circuitry to original condition. The temporary alteration was to alter the power supply circuitry to power a transformer instead of the motor.

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 activity did not increase the probability or consequences of an accident or malfunction as the Reactor Coolant Pump (RCP) is not required in Modes 5,6, or defueled. The restoration of the power circuitry will be tested to ensure all requirements are met prior to required operation. Therefore, the equipment was operated in accordance with the original design upon restoration.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the activity precluded any other accidents by verifying acceptable performance through testing prior to the equipment operability. Therefore, no unanalyzed conditions were created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this activity maintained the requirements of Technical Specifications throughout performance. Therefore, the margin of safety is unaffected.

Byron Station
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6G-98-0059
SPP 98-032

DESCRIPTION:

This proposed activity is a special test procedure (SPP) that will install a mechanical jumper between 1CV068 and 1SI011 to direct flow from the Chemical and Volume Control (CV) system through valve 1SI8956B, "Accumulator Discharge Check Valve" for the purposes of stroking 1SI8956B to verify proper valve setting. The proposed activity will occur while Unit 1 is in Mode 5 for B1R08.

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 both Residual Heat Removal (RH) trains and emergency boration will be available during the proposed 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 local manual or remote manual isolation of failures is provided as a contingency.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity does not change Technical Specification Bases parameters.

Byron Station
10 CFR 50.59 Report
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6G-98-0235
SPP 98-077

DESCRIPTION:

This activity functionally tested the Diesel Generator Starting Air System Dryers after replacement by modification. This procedure satisfied the testing requirements of the modification.

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 activity does not change the ability of the diesel generator to function. The air dryer removes moisture and contaminants from the air prior to sending it to the starting air system. This allows the starting air system to perform better. The starting air was always available to start the diesel from one of the two air receivers during performance of the testing. No functions were changed and all analyses of accidents and malfunctions remain valid per the safety analysis report.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the test involved no physical plant changes, which would challenge the diesel generator, or any of its support equipment. No new failure modes are created by the test. This activity ensured sufficient starting air is available to maintain operability.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the air dryers are not used in the emergency mode of operation. A separate train of starting air is verified operable prior to the testing. The diesel generator is maintained operable per the requirement of Technical Specifications during the testing. No new failure modes were introduced.

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10 CFR 50.59 Report
For Calendar Year 2000

6G-98-0295
SPP 98-103 for Circulating Water Blowdown Dye Time Testing

DESCRIPTION:

This activity injected a dye into the circulating water flume at the normal chlorination injection point. A fluorometer was installed at the blowdown sample point to measure the concentration of the dye. This information established the transit time down the line. This travel time is needed to ensure sampling was performed at the proper time when chlorination was in progress. Sampling is required by the NPDES Permit.

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 circulating water system was operated in accordance with the safety evaluation. The small amount of dye has no impact on plant or river chemistry. A limitation did not allow performance of the test if a condenser tube leak was present. Therefore, no increased probabilities of an accident, malfunction, or consequences were possible. Additionally, the condenser and circulating water systems are not required for safe shutdown.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because a small amount of dye is used in a system not required for safe shutdown. System blowdown systems remain operating per the analysis. No new failures were introduced to the system as evaluated. Therefore, no new accidents or malfunctions can occur. Additionally, the condenser and circulating water systems are not required for safe shutdown.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because all Technical Specifications remained fully met prior to, during, and after the testing. The condenser and circulating water systems are not required for safe shutdown. Therefore, there was no impact on the margin of safety.

Byron Station
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6G-99-0069
SPP 99-022

DESCRIPTION:

The purpose of the Special Procedure is to isolate and drain the Stator Cooling Water System (GC). The system is then pressurized with Instrument Air and Helium to check for leaks.

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 GC is not assumed to function during or after an accident or transient and is not required to be operable in the current plant configuration. GC is a non-radioactive system, so the dose to the public is not affected by the system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because GC is isolated during the test and the main generator is out of service. Instrument Air supplies pressurized air as designed. If a leak were to occur on the temporary line supplying GC, the leak would either be detected by the SPP Lead or the main control room. The main control room will then respond using the appropriate procedure.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because GC is not safety related and is not assumed in the Bases for any Technical Specification.

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6G-00-0056
SPP 00-006

DESCRIPTION:

Special Test Procedure SPP 00-006, Byron Unit 1 Power Uprate Pre-Installation MWE Output Test Procedure.

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 no activity in SPP 00-006 testing affects any initial condition, assumptions, or status of equipment and systems described in UFSAR, Table 15.0-7 "Plant Systems and Equipment Available for Transients and Accident Conditions". Therefore, Power Uprate Pre-Installation MWE Output Test will not alter radioactive consequences described in UFSAR Chapter 15, and the probability of occurrence of an accident or transient is not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because during the performance of this activity, the plant can be operated in a safe manner consistent with Technical Specifications with some secondary plant systems temporarily deviating from UFSAR descriptions. However, the impacts are within the design basis, and do not impact the plant safety analysis. As a result, operations and alterations performed under this activity will not create the possibility of an accident or transient of a different type other than previously evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because during the performance of this activity, the plant can be operated in a safe manner consistent with Technical Specifications with some secondary plant systems temporarily deviating from UFSAR descriptions. The impacts are within the design basis, and do not impact the plant safety analysis. As a result, operations and alterations performed under this activity will not reduce the margin of safety.

Byron Station
10 CFR 50.59 Report
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6G-00-0087
SPP 00-014, Rev. 0

DESCRIPTION:

Drain and Fill of the Unit 1 Reactor Coolant System during the use of the Temporary Reactor Vessel Cover.

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 procedure will be performed while the reactor vessel is defueled. Because of this condition, no decay heat from the fuel will need to be removed. Additionally, since the vessel is defueled, reactivity concerns are non-existent. All accident analyses that encompass the affected systems assume initial conditions based upon a specific condition of a fueled reactor vessel. The design of the ECCS subsystems incorporates the maximum credible requirements for decay heat removal and boration capability. These requirements do not exist in the defueled mode of operation.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the possibility of an accident is not created because the reactor will be in a defueled mode during the performance of this procedure. Since the reactor vessel, RCS and ECCS components are not required to function as designed during a defueled condition, equipment failures will not impact the safety of the plant.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specification Limiting Condition for Operation will be exceeded during the performance of this procedure. A verification step is included in the procedure to ensure that the RCS Chemistry LCO has been entered due to the fact that the RCS water will not be able to be sampled. However, the Action Requirements for this LCO will already have been entered for other activities in progress prior to the performance of this SPP.

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10 CFR 50.59 Report
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6G-00-0161
SPP 00-017

DESCRIPTION:

The proposed activity increases Chemical and Volume Control System (CVCS) letdown flow up to a maximum of 150 gpm for RCS radioactive material cleanup following a plant shutdown. The activity includes; throttling Residual Heat Removal (RH) pump discharge flow to increase Residual Heat Removal System (RHRS) pressure at the branch to CVCS letdown, throttling flow through valves 1/2CV128; parallel flow through letdown heat exchangers 1/2CV04AA and 1/2CV04AB; parallel flow through control valves 1/2CV131 and associated bypass valves 1/2CV8409; flow of up to 150 gpm through mixed bed demineralizers 1/2CV01DA or 1/2CV01DB; flow of up to 150 gpm through the reactor coolant filters 1/2CV03F; and flow of up to 150 gpm through Volume Control Tanks (VCTs) 1/2CV01T. VCT pressure is reduced to 5 psig to provide for the increased letdown flow rate. The RCS is drained down to the reactor vessel flange by partially diverting increased letdown flow with the 1/2CV112A valves, to the Recycle Hold Up Tanks (HUTs) 0AB01TA and 0AB01TB.

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 Low Temperature Overpressure Transient is not increased because the proposed activity will not cause or increase the potential for an inadvertent mass input events or heat input events. The activity does not affect the safety injection system, the pressurizer heaters, or Reactor Coolant Pumps (RCPs). RH cooling capability is not adversely affected. The probability of charging/letdown flow mismatch is not increased because CVCS controls and the potential for inadvertent letdown valve isolation are unchanged.

The probability of a Loss of the RHRS is not increased because the RHRS is designed to provide for letdown flow in Modes 5 and 6, and because the RHRS is fully capable of supplying the CVCS with 150 gpm of letdown flow. Both RHR trains will be operable and RH flow will be controlled to maintain desired RCS temperatures.

The probability of an Inadvertent Boron Dilution is not increased because the proposed activity will not affect the primary water makeup control function of the CVCS.

The probability of a CVCS line failure outside containment is not increased because letdown line and VCT relief valves are of sufficient size to protect the CVCS. Letdown line higher flow velocities do not increase the probability of a line or component failure because stainless steel piping is non-susceptible to flow-accelerated corrosion at letdown fluid temperatures less than 200°F, and because letdown line components were evaluated under ER 9915625 and determined to be fully capable of operating at the higher flow rate.

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6G-00-0161
SPP 00-017
(Cont'd.)

The consequences of a Low Temperature Overpressure Transient are not increased because the proposed activity will not increase RCS pressure or heat input during the transient. The RHRS will be on line and the RHRS suction relief valves are capable of mitigating any potential overpressure resulting from the operation of one charging pump.

The consequences of a Loss of the RHRS are not increased because the second redundant RH train is available to remove reactor core decay heat and sensible heat from the RCS.

The consequences of an Inadvertent Boron Dilution are not increased because the proposed activity will not increase RCS dilution rate above the previously analyzed dilution rate of 205 gpm.

The consequences of a CVCS Line Failure outside containment are not increased because letdown flow is increased after the RCS is cooled down and depressurized. The previously analyzed line failures assume the RCS is heated up and pressurized, enveloping a line failure with the RCS cooled down and depressurized.

The CVCS and RHRS equipment is fully capable of operating at the higher letdown flow rate of 150 gpm. The Recycle Hold Up Tanks are capable of accepting the higher anticipated letdown flow during RCS drain down to the reactor vessel flange. Parallel flow through the letdown heat exchangers will not adversely effect the Component Cooling System (CCS) because the amount of heat removed from the RCS and transferred to the CCS is not increased. Since the letdown water temperature is less than 140°F, the potential for equipment damage due to cavitation or flashing is not created.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because increasing CVCS letdown flow rate during Modes 5 and 6 from a maximum 120 gpm to 150 gpm will not create a new type of accident or transient because potential failure modes of CVCS and RHRS have been previously evaluated. No new failure modes are created by this change. The increased flow in the letdown line may cause a high letdown flow alarm in the Control Room. However, this is acceptable because the purpose of the alarm is based on preventing high Auxiliary Building radiation levels from N-16 gamma. Auxiliary Building radiation levels are not affected because N-16 gamma radiation is not a concern during shutdown operation in Modes 5 and 6.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety for any Technical Specification is not reduced because no Technical Specifications are affected as a result of this activity.

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6H-00-0090
SPP 00-007

DESCRIPTION:

SPP 00-007 satisfies the modification testing requirements specified in Design Change Package (DCP) 9600047 for replacing the 2B Diesel Generator Starting System Air Dryer 2DG01SB-D.

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 no design basis accidents are affected by the diesel generator starting air system air dryers. The starting air system air dryers are not safety related and not required in emergency mode operation.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this test functionally verifies the operation of the replacement air dryer installed under DCP 9600047 while maintaining operability of the affected diesel generator. The test does not introduce any new operational limitations for the affected diesel generator nor does it challenge the availability of the diesel generators.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the SPP does not affect any parameters upon which the Technical Specifications are based.

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6H-00-0100
SPP 00-006, Rev. 1

DESCRIPTION:

Special Test Procedure (SPP) 00-006, Revision 1, "Byron Unit 1 Power Uprate Pre-Installation MWE Output Test Procedure".

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 no activity in SPP 00-006, Revision 1 testing affects any initial condition, assumptions, or status of equipment and systems described in UFSAR, Table 15.0-7 "Plant Systems and Equipment Available for Transients and Accident Conditions". Therefore, Power Uprate Pre-Installation MWE Output Test will not alter radioactive consequences described in UFSAR Chapter 15, and the probability or occurrence of an accident or transient is not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because during the performance of this activity, the plant can be operated in a safe manner consistent with Technical Specifications with some secondary plant systems temporarily deviating from UFSAR descriptions. However, the impacts are within the design basis, and do not impact the plant safety analysis. As a result, operations and alterations performed under this activity will not create the possibility of an accident or transient of a different type other than previously evaluated.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because during the performance of this activity, the plant can be operated in a safe manner consistent with Technical Specifications with some secondary plant systems temporarily deviating from UFSAR descriptions. The impacts are within the design basis, and do not impact the plant safety analysis. As a result, operations and alterations performed under this activity will not reduce the margin of safety.

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6H-00-0122
SPP 00-009

DESCRIPTION:

The proposed activity is a special test procedure that will quantify leakage rates from the 2A steam generator blowdown valves, 2SD005A, 2SD002A and 2SD002B.

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 Section 1 of the SPP is considered to be Station approved IST leak test. Thus, the performance of Section 1 would not increase the probability of any accident or malfunction scenarios.

Sections 2, 3 and 4 of the proposed activity temporarily secures steam generator blowdown to Unit 2 to quantify leakage rates from 2A steam generator blowdown valves (2SD002A/B). These sections close the blowdown containment isolation valves. Therefore, the containment isolation function is satisfied. This SPP does not cause a degradation of these safety functions nor result in an increased challenge of these functions. The SPP does not introduce any new failure modes.

Temporarily securing Unit 2 steam generator blowdown will not cause steam generator chemistry to go beyond specified limits. The blowdown flow path will not be secured long enough to cause chemistry to go beyond specified limits. If specified chemistry limits are approached, the proposed activity will restore the normal blowdown flow path.

The increased S/G SD leakage rates of 8 gpm will not exceed the current containment and Chapter 15 analyses.

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 SPP does not create any new equipment failures or malfunctions because the safety functions of containment isolation are still satisfied. The proposed activity will verify steam generator Chemistry is within specified limits prior to securing blowdown during the performance of Sections 2,3 and 4. The proposed activity has provisions to restore steam generator blowdown in the event that chemistry limits are approached.

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SPP 00-009
(Cont'd.)

The increased leakage rates of 8 gpm for each steam generator would not exceed the current containment and Chapter 15 analyses.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the steam generator blowdown system containment isolation valves remain operable during the proposed activity. Therefore, the Technical Specifications acceptance limit is still satisfied. There is no reduction in margin of safety and no increase in consequence.

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6H-00-0152
SPP 00-018, Rev. 1

DESCRIPTION:

The proposed activity is to isolate and drain the Stator Water cooling system and then pressurize the system with Instrument Air and/or Helium to verify its leak tightness.

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 activity is performed on the stator water system, which will be shutdown, drained, and out of service. The stator water cooling system is not required for the safe shutdown of the reactor in any mode of operation; therefore, the proposed activity does not impact the UFSAR analysis.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity is a leak test of a secondary plant system, which does not impact those systems which are important to the safe shutdown capability of the reactor. The reactor will be in Mode 5 or 6 during the performance of this test, which provides additional safety margin to the proposed activity. Therefore, the possibility of an accident/malfunction of a different type other than originally evaluated by the UFSAR is not increased.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity has no impact on the Technical Specifications; therefore, the margin of safety is unaffected.

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<u>TEMPORARY MODIFICATIONS (Tmod)</u>	
1.	6G-00-0024
2.	6G-00-0034, Rev. 2
3.	6G-00-0064
4.	6G-00-0067
5.	6G-00-0107
6.	6G-00-0111
7.	6G-00-0133
8.	6G-00-0140
9.	6G-00-0156
10.	6G-00-0163
11.	6H-00-0162
12.	6H-00-0185

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6G-00-0024
Temporary Modification (Tmod) DCP 9900398

DESCRIPTION:

This temporary modification will remove a short section of non-safety related vent piping to allow room for installation a threaded pipe cap. The change will have no effect on the operation of the plant since the vent line is normally isolated by closed valves. The cap can be removed if the vent is needed. Currently, there is leakage of Essential Service Water (SX) past either the 2CC021A or 2CC21C valves. The leakage flows through the open end of the vent pipe to the Auxiliary Building Floor Drain System. It is not desirable to allow SX water to leak from the system. The temporary cap will preserve SX inventory by stopping the leakage until the isolation valve(s) can be repaired.

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 installation of a threaded cap on the tube vent for heat exchanger 2CC01A will have no impact on the RCS pressure boundary. Therefore the probability of a decrease in reactor coolant system inventory is not increased. The cap will also have no impact on the operation of the plant or the possibility of a dual unit trip since it is a passive component not directly related to plant operation. Installation of the threaded cap will provide an additional barrier against leakage of essential service water and does not affect the flow of essential service water. This will enhance the ability of the essential service water system to perform its design function. Therefore, there will be no increase in accident consequences. The cap is installed on the class D, non-safety related portion of the system. It will have no impact on the ASME/safety related piping or on the Component Cooling (CC) heat exchanger since it meets the seismic design criteria as described above. The cap is not an active component and is not sensitive to a seismic event. Therefore, there is no increase in the probability or consequences of a malfunction.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the threaded cap will not change the function of any system such that a different accident or transient occurs. The heat exchanger tube vent is normally isolated and will remain so after installation of the cap. SX flow through the heat exchanger is not impacted. The vent cap provides a passive function and provides additional isolation to the SX system since the current design does not include isolation downstream of the normally closed valves, 2CC021A/C. The adherence to approved seismic span criteria ensures that malfunctions will not result.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because there are no changes to the basis of any Technical Specification. Therefore, the margin of safety is not reduced.

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For Calendar Year 2000

6G-00-0034, Rev. 2
Temporary Modification (Tmod) DCP 9900416

DESCRIPTION:

The purpose of this design change was to install air jumpers from the Unit 2 Station Air Compressor, (2SA01C) to temporary air receiver tank(s). The air jumpers consisted of 3" diameter high-pressure air hoses, and associated fittings. The hose connection points were downstream of valve 2SA001A and upstream of valve 2SA002. A check valve was installed upstream of valve 2SA002 to ensure system integrity. The sensing line for 2PSL-SA004 & the carbon monoxide analyzer was rerouted to one of the temporary air receivers. To maintain the connection to the external air compressor a "T" connection with an isolation valve was installed between a service air drop and one of the air receivers in order to maintain system pressure upstream of the temporary check valve.

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 was not increased because the effects on the system as a result of the temporary air receiver was evaluated and determined to not constitute an unreviewed safety question. The engineering review of the Tmod determined that the Service Air system would not change the function of system. The Service Air or Instrument Air systems did not impair the safe shutdown of the plant upon loss of system integrity. The Service and Instrument Air systems are non-safety related and did not prevent safety-related components from performing their safety functions.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report was not created because the proposed activities do not affect the existing failure modes of the Service Air system. A failure of this system, did not prevent safety-related components from performing as required under accident conditions. All air-operated equipment is designed for a fail-safe mode on loss of Service Air or Instrument Air and does not require a continuous air supply under emergency or abnormal conditions. The Service Air and Instrument Air systems are not necessary for achieving safe reactor shutdown or for accident prevention or mitigation.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Tmod will be installed while the component/system is OOS. The Tmod will remain in service and does not affect any parameters upon which Technical Specifications are based.

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6G-00-0064
Temporary Modification (Tmod) DCP 9900419

DESCRIPTION:

This Tmod diverts the Unit 1 Primary Sample system's reactor coolant liquid sample drip pan and splash box drain from the normal 1/4" diameter drain line through the sample panel to the accumulator tank and instead routes it via a 1/2" tygon drain line to the floor drain immediately below the drain sink. (This is the same floor drain that this water would flow to if the sample drip pan and splash box were to overflow for some reason). The tygon will be pushed through the loop seal in the drain so that any gases are kept in the drain system. The effect of this Tmod will be to route the sample fluid flow to the Auxiliary Building floor drain tank via the plant floor drain system and the Unit 1 Auxiliary Building floor drain sump, rather than via the accumulator tank to the HRSS waste drain tank to the chemical drain tank to the Auxiliary Building floor drain tank.

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 Primary Sample System is not in initiator of any accident or transient described in the SAR. For post-accident sampling, the modified portion of the Primary Sample System is not used. Use of the modified drain system during normal operations does not cause any increase in off-site doses. All drain water ultimately ends up in the Auxiliary Building floor drain tank. Limiting the use of the Tmod to less than 0.1% failed fuel ensures that should an accident or transient occur at up to 0.1% failed fuel, that operators can continue to access emergency equipment in order to respond to the accident. Therefore, this Tmod and procedure change will not increase the probability or consequences of an accident or transient.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the Primary Sample System cannot, in itself, cause an accident or transient. Routing the sample drain to the floor drain does not change the basic way in which the system operates. Samples can continue to be taken as usual. The drain water will not adversely affect the ability of the operators to access the 1B Auxiliary Feedwater pump room. The tygon hose will be pushed through the drains loop seal so any gases evolved from the water will not enter the HRSS room, but be kept in the drain system.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because there are no Technical Specifications associated with the Primary Sample System or the Auxiliary Building drain system; therefore, there is no reduction in the margin of safety defined in any Technical Specification.

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6G-00-0067
Temporary Modification (Tmod) DCP 9900467

DESCRIPTION:

Installation of valve block on the 1A Residual Heat Removal Heat Exchanger Flow Control valve to lock the valve disk in its closed position. The 1A train of Residual Heat Removal (RHR) will not be able to perform its design functions during this activity as that train's pump and heat exchanger will not be functional. As a result, LCO 3.5.2 will be entered while this temp mod is installed.

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 each train of the Unit's Residual Heat Removal System is designed to provide 100% design capability to provide safe shutdown of the plant. The function of the RHR system is to remove heat energy from the RCS during plant cooldown and refueling, and this activity does not impact accident probability (this activity is not an accident initiator). Plant Technical Specifications require the operability of both trains of RHR. Because this requirement is not met by temporarily installing this valve block, LCO 3.5.2 will be entered while this activity is taking place. The failure modes and effects of the Residual Heat Removal System are not impacted by this activity.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because since the RHR system is required for normal and post-accident heat removal, it is designed to meet the single active or passive failure criteria. In addition, the RHR system is designed to give the operator flexibility in aligning the desired pumps and heat exchangers. The required system functions and operating requirements as defined in the Technical Specifications do not change.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the action statement for loss of one train of Residual Heat Removal has been reviewed and approved by the NRC, and ensures that the remaining train of Residual Heat Removal is available and adequate to support the unit's requirements. The redundant system remains unaffected and available. Therefore, the margin of safety is not reduced beyond what has already been reviewed and approved by the NRC.

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6G-00-0107
Temporary Modification (Tmod) DCP 9900605

DESCRIPTION:

This Temporary Modification (Tmod) will disable the supervisory switch for valve 0FP214 (50K/125K Fuel Oil Storage Tanks Fire Protection Deluge Isolation Valve), the tamper switch for valve 0FP793A (125K Fuel Oil Storage Tank 0Do03T Fire Protection Deluge Isolation Valve) and the tamper switch for valve 0FP794A (50K Fuel Oil Storage Tank 0D012T Fire Protection Deluge Isolation Valve). This will be accomplished by lifting leads from these devices at terminal blocks within the 0FP06J panel and installing 6.2 K Ω resistors across the terminal blocks. The effect of this modification will be that indication that these valves are closed will not be available in the Main Control Room (MCR). The foam fire protection system for the outside diesel oil storage tanks is expected to be abandoned in place. In the interim, this Tmod will eliminate the operator distraction in the MCR by removing the alarming inputs due to the present OOSs on valves 0FP214, 0FP793A, and 0FP794A.

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 no transients or accidents were identified. This Tmod does not interact with any equipment important to safety. The valves that the supervisory/tamper switches are monitoring will be OOS for the duration of this Tmod. The alarm circuitry modified serves no mitigation functions. This alarm is not assumed or credited to reduce offsite dose (i.e., consequences) during normal operation or following any design basis accident or transient. Therefore, the consequences of equipment malfunctions are unaffected by this change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the fire protection system is not an initiator of any accident or transient. No additional credible accidents can occur due to the installation of the resistors at panel 0FP06J. The installation of the resistors in place of the supervisory/tamper switches does not allow operation of the fire protection system in a manner that would create a new equipment malfunction. The affected portion of this system is OOS and will remain so for the duration of this Tmod. Therefore, the possibility of a different type of malfunction of equipment important to safety is not created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the function of the equipment affected by this Tmod is not associated with any Technical Specifications. Therefore, the margin of safety is not reduced.

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6G-00-0111
Temporary Modification (Tmod) DCP 9900607

DESCRIPTION:

Install temporary blocking device on the Spent Fuel Pool Heat Exchanger Return Header Butterfly Valve 0FC8754 to lock the valve in its throttled position. The common return header for the Spent Fuel Pool Cooling System will remain functional during this activity and each train's pump and heat exchanger will continue to remove decay heat from the spent fuel pool water. Upon completion of this maintenance activity, the actuator will be re-installed and the blocking device removed. This temporary modification will be in place for approximately one to two days, at which time the blocking device will be removed and valve operation will be re-established.

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 equipment malfunctions in the FC system does not increase over the original design basis values as a result of locking the 0FC8754 valve in its throttled position. No adverse conditions that will increase the probability of equipment malfunction occur as a result of this activity. Due to the relatively small mass associated with the blocking device, the overall weight of the system piping is not significantly changed. The 0FC8754 valve is located in the Fuel Handling Building, which is a Seismic Category I structure. The addition of the valve block will not affect the seismic qualification of either the FC system or the Fuel Handling Building structure. The temporary equipment used for this Tmod will be securely restrained and will not impact other equipment during a seismic event.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because by temporarily blocking the 0FC8754 valve in its throttled position, the potential for a new type of accident or malfunction is not created. The unlikely failure of the valve blocking device would result in the possibility of the valve completely closing, the consequences of which are the same as a loss of the FC system return line as evaluated in the SAR. The required system functions and operating requirements as defined in the Byron SAR do not change. Therefore, this proposed change does not create the possibility of an accident or malfunction of a type different from those evaluated in the SAR.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications are affected by this proposed change. Therefore, the margin of safety as described in the Bases for any Technical Specifications is not affected.

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6G-00-0133
Temporary Modification (Tmod) DCP 9900823

DESCRIPTION:

Cut line 0SXG3AC-1/2" at the reducer (upstream of valve 0SX248C) and install tapered plug with a holding device to provide a positive force on the plug. This Tmod will isolate line 0SXG3AC-1/2" from the 0SX14MC sulfuric acid pump.

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 installing a tapered plug with holding device on line 0SXG3AC-1/2" will allow the remaining three sulfuric acid pumps to operate normally to provide long-term corrosion/organic control chemicals to the Essential Service Water (SX) cooling tower basin. This system is non-safety related. The sulfuric acid system is not relied upon to support the SX system during accidents or transients. The chemical feed system is not a precursor to any accidents or transients; therefore, installation of this plug will not increase the probability or consequences of any accidents or transients.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because installing a tapered plug and holding device on 0SXG3AC-1/2" will not create the possibility of an accident or transient of a different type. The sulfuric acid system is a non-safety-related system used for long term corrosion/organic control of SX piping. Installation of the plug will allow normal operation of the remaining three pumps, thereby maintaining proper chemical addition to the SX water. The entire system may be shutdown for several days before the SX water chemistry parameters are adversely affected.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the acid system is not required by any Technical Specification, and is not relied upon to support the Bases of any Technical Specification.

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6G-00-0140
Temporary Modification (Tmod) DCP 9900847

DESCRIPTION:

This Tmod will install a valve block on valve 1SA033. The valve block will ensure the valve is kept in the open position. This activity will be performed when Unit 1 is in Modes 5, 6 or defueled. The solenoid for valve 1SA033 requires repair. Since the valve is a fail-closed valve, a valve block will provide a means for the valve to be open in order to allow use of Service Air (SA) inside containment.

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 Unit 1 will be in Modes 5, 6 or defueled. Valve 1SA033 is a containment isolation and is not required to be closed during Modes 5, 6 or defueled. Also, the valve block was evaluated, and determined to be acceptable. The small increase in weight of the blocking device will not impact the seismic analysis. The Tmod evaluation has determined that the blocking device will not adversely affect any SSC during this activity. The SA system is non-safety related and only provides oil-free compressed air for general plant and maintenance use in containment. Therefore, a failure of a blocking device will not increase the probability of occurrence of an accident or malfunction.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this activity will be performed when Unit 1 is in Modes 5, 6 or defueled. This activity will not impact containment isolation since containment isolation LCO 3.6.3 is only applicable in Modes 1, 2, 3, or 4. Should containment closure be required, valve 1SA032 can be closed. Therefore, the possibility of an accident or malfunction of a different type will not be created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because this activity will be done while Unit 1 is in Modes 5, 6 or defueled. Therefore, Technical Specification 3.6.3 will not be impacted.

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6G-00-0156
Temporary Modification (Tmod) DCP 9900864

DESCRIPTION:

It is proposed that the air actuator for Essential Service Water (SX) 2A Containment Refrigeration Unit Outlet Isolation valve 2SX114A be temporarily removed for repair. The air operator is to be removed from the valve while an engineered blocking device is mounted on the valve body, effectively locking the valve stem in place. The actuator is to be removed while the valve is in its fully closed position, thus locking the valve closed by virtue of the blocking device.

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 ability of the essential service water system to mitigate the consequences of any accident is not changed by locking the 2SX114A valve in its closed position. Two independent trains of containment cooling are still operable to mitigate all accident scenarios; therefore, the consequences of any accident are not changed. By removing the air operator from the valve, the potential for a new type of accident or malfunction is not created because this proposed activity places the fail-closed 2SX114A valve in its fail-safe position, consistent with SX system design. There are no UFSAR sections or Technical Specifications that require this valve to achieve an open position.
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 by removing the valve actuator and locking the 2SX114A valve in the closed position, the potential for a new type of accident or malfunction is not created because this valve is required to achieve a fully closed position to support post-accident operation of that train of RCFCs. The required system functions and operating requirements as defined in the Byron Technical Specifications do not change.
3. The margin of safety, as defined in the Bases for an Technical Specification, is not reduced because the function of the Reactor Containment Fan Cooler (RCFC) System is to cool and dehumidify containment under normal and accident conditions. The RCFC system consists of two redundant trains each powered from a separate ESF bus. During normal operation, the containment refrigeration unit inlet and outlet valves are open, and the bypass valve functions as a modulating valve. In emergency conditions, the inlet and outlet valves close, and the bypass valve moves to the full open position. As this Tmod essentially results in the placement of the 2SX114A valve in its fail-safe position, the margin of safety as described in the Technical Specification basis is not affected. In addition, the associated train of SX is not impacted because all safety related heat loads which are required to be supplied with cooling flow are not affected. The 100% capacity opposite train of SX will still be operable and available to remove core decay heat following a DBA.

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6G-00-0163
Temporary Modification (Tmod) DCP 9900853

DESCRIPTION:

The proposed activity is a temporary change to the Instrument Air (IA) system supplying containment. The change reroutes IA into containment through the equipment hatch via temporary hoses, valves, and connections attached to permanent IA system piping. The effect of the change is that IA will be supplied to the Unit 1 Containment at a reduced capacity due to the size of piping, connections, and hoses. The Tmod provides IA into the Unit 1 Containment during the B1R10 refueling outage for operation of the refueling machine, with the normal IA flow path into containment isolated for repair work on IA system flanges.

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 on loss of IA to the refueling machine, the gripper fails as-is. Compressed air is required to release a fuel assembly. In addition, other interlocks are provided to prevent the inadvertent release of a fuel assembly suspended from the gripper. The non-safety related IA system could not cause a refueling machine malfunction that can result in a fuel handling accident. The IA system is not relied upon to mitigate the consequences of a malfunction of equipment important to safety. The IA system is designed such that a loss of IA will not prevent safety related components, equipment, or systems from mitigating the consequences of any design-basis accident or performing as intended under emergency conditions. Individual components are designed such that they fail to their safe position on loss of air. Therefore, the temporary change will not increase the probability of a Fuel Handling Accident (FHA) inside containment or the consequences of a malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because failure of the existing IA system cannot cause a new type of accident. The temporary change install components and hoses, which meet the pressure requirements of the IA system. No Seismic II over I concerns exist in the area of the temporary hose. Therefore, failure of the IA system or the temporary components and hoses will not create the possibility of an accident or transient of a different type other than previously evaluated.

The proposed temporary change is a passive extension of the IA system. A break or breach in the pressure boundary of the temporary configuration does not represent a new failure mode for the IA system. In addition, design considerations and operating restrictions prevent adversely impacting interfacing safety related equipment.

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

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6H-00-0162
Temporary Modification (Tmod) DCP 9900853, Rev. 1

DESCRIPTION:

The temporary freeze seal will be placed on line 0SX79AB-6" upstream of valve 0SX161B. The freeze seal will form an isolation boundary for maintenance work on valve 0SX161B. The freeze seal will not affect SX system operation since this portion of the system will not be required to be operational during the period that the freeze seal is installed.

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 freeze seal will be installed per procedure BMP 3300-7, "Application of Freeze Seal To Aid Piping," and the freeze seal has been evaluated and determined to be an acceptable isolation boundary. The freeze seal is considered equivalent to a closed valve. Also, contingency plans have been provided in the work package should the freeze seal fail. Therefore, a failure of a freeze seal will not adversely affect the system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the freeze seal will be forming an isolation boundary. The freeze seal will prevent any uncontrolled leakage from the valve 0SX161B while the bonnet is removed for the maintenance activity. The system will continue to perform per design and contingency plan(s) will be in place in case of a freeze seal failure.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specifications will be impacted by this activity.

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6H-00-0185
Temporary Modification (Tmod) DCP 9900858

DESCRIPTION:

It is proposed that the air actuator for Essential Service Water (SX) 2A Containment Refrigeration Unit Outlet Isolation valve 2SX112A be temporarily removed for repair. The air operator is to be removed from the valve while an engineered blocking device is mounted on the valve body, effectively locking the valve stem in place. The actuator is to be removed while the valve is in its fully closed position, thus locking the valve closed by virtue of the blocking device.

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 ability of the essential service water system to mitigate the consequences of any accident is not changed by locking the 2SX112A valve in its closed position. Two independent trains of containment cooling are still operable to mitigate all accident scenarios; therefore, the consequences of any accident are not changed. By removing the air operator from the valve, the potential for a new type of accident or malfunction is not created because this proposed activity places the fail-closed 2SX112A valve in its fail-safe position, consistent with SX system design. There are no UFSAR sections or Technical Specifications that require this valve to achieve an open position. The required system functions and operating requirements as defined in the Byron Technical Specifications do not change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because by removing the valve actuator and locking the 2SX112A valve in the closed position, the potential for a new type of accident or malfunction is not created because this valve is required to achieve a fully closed position to support post-accident operation of that train of RCFCs.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the function of the Reactor Containment Fan Cooler (RCFC) System is to cool and dehumidify containment under normal and accident conditions. The RCFC system consists of two redundant trains each powered from a separate ESF bus. During normal operation, the containment refrigeration unit inlet and outlet valves are open, and the bypass valve functions as a modulating valve. In emergency conditions, the inlet and outlet valves close, and the bypass valve moves to the full open position. As this Tmod essentially results in the placement of the 2SX112A valve in its fail-safe position, the margin of safety as described in the Technical Specification basis is not affected. In addition, the associated train of SX is not impacted because all safety related heat loads which are required to be supplied with cooling flow are not affected. The 100% capacity opposite train of SX will still be operable and available to remove core decay heat following a DBA.

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<u>TECHNICAL REQUIREMENTS MANUAL (TRM) AND TECHNICAL SPECIFICATION (TS)</u>	
1.	6G-00-0002
2.	6G-00-0003
3.	6G-00-0018
4.	6G-00-0046
5.	6G-00-0047
6.	6G-00-0104
7.	6G-00-0137
8.	6H-00-0010
9.	6H-00-0020
10.	6H-00-0057
11.	6H-00-0059
12.	6H-00-0062
13.	6H-00-0075
14.	6H-00-0097
15.	6H-00-0166

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6G-00-0002
Various T.S. Bases & BOLs

DESCRIPTION:

The proposed change consistently applies two explanatory exceptions to the required action of suspending positive reactivity changes throughout the Technical Specification Bases. These two explanatory exceptions are:

"The Required Action to suspend positive reactivity additions does not preclude actions to maintain or increase reactor vessel inventory provided the required SDM is maintained."

and

"Suspension of ... positive reactivity additions shall not preclude [normal] heatup/cooldown of the coolant volume for the purpose of system temperature control [within established procedures]."

Equivalent text will be added to the Bases for each LCO required action of suspending positive reactivity additions that is applicable.

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 no changes to the facility are made, therefore the unchanged facility cannot increase the probability of occurrence or consequences of any malfunction, accident, or transient. The change is the ability for operators to use those systems to maintain RCS inventory and temperature within normal procedurally directed bands with the restriction that SDM be maintained. Since this change does not constitute a change in the initial reactivity conditions of the core (SDM is satisfied) and neither does it constitute a change in method for operation of these systems, this procedure change cannot increase the probability of occurrence or consequences of any malfunction, accident, or transient.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the plant will be maintained in normally controlled conditions of RCS inventory and temperature, with no change in any facility systems. Therefore, this change cannot create the possibility of a malfunction, accident, or transient of a different type other than previously evaluated.

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6G-00-0002
Various T.S. Bases & BOLs
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because all of these Technical Specification sections have a common action, namely, the suspension of positive reactivity additions. The common aspect of these LCO conditions is that there is degradation of a particular monitoring or mitigation system that would be required to function during a postulated event. Because of this degradation in these systems, the required action is to place the plant in a condition such that the probability of the postulated event is minimized. The suspension of positive reactivity additions places the plant in a condition where the probability of reactor criticality is minimized. The ability to control RCS inventory and temperature, during this suspension of positive reactivity additions, is acceptable provided SDM is maintained. The allowance for the control of RCS inventory and temperature likewise minimized the challenges to the plant whereby the degraded equipment would be required to function.

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10 CFR 50.59 Report
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6G-00-0003
TRM 3.10.f

DESCRIPTION:

The proposed change is an editorial revision to the TRM in Tables 3.10.f-1 (Unit 1) and 3.10.f-2 (Unit 2) in TRM 3.10.f (Revision 1) that simply combines the two tables into one common table. The final resultant table (i.e., Table 3.10.f-1 [Revision 3]) does not modify any of the data contained within the individual tables.

(Note: Revision 2 to the TRM was associated with a different section of the TRM and has no bearing on this 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 no accidents were identified in Section 10 that were affected by the proposed editorial change. Therefore the probability of occurrence nor the consequences of an accident or malfunction of equipment for any accident or transient are not changed by this change.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed change is an editorial revision to the Tables 3.10.f-1 (Unit 1) and 3.10.f-2 (Unit 2) in TRM 3.10.f (Revision 1) that simply combines the two tables into one common table. The final resultant table does not modify any of the data contained within the individual tables. Therefore, the possibility of a different accident or transient created does not exist.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed changes are not a component of Technical Specifications. The proposed changes are editorial changes to the fire protection section of the TRM.

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10 CFR 50.59 Report
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6G-00-0018
TRM Requirements Relocated to Procedures

DESCRIPTION:

The proposed activity is to relocate requirements originally designated to be a component of the Technical Requirements Manual (TRM) during implementation of the Improved Technical Specifications (ITS) to station procedures.

During the conversion from the prior Technical Specifications (i.e., Customized Technical Specifications [CTS]) to the ITS many CTS specifications were relocated as TRM requirements. The proposed activity for this safety evaluation is to now relocate TRM requirements to plant procedures. These relocations are administrative and make no changes, either actual or interpretational, to the requirements. Additionally, each relocated requirement will have an associated commitment number. That commitment number (i.e., 454-130-97-ITSIMP98-XXX) will require a 50.59 review prior to any revision to that requirement. This is the same level of review currently mandated for changes to requirements in the TRM and allowed by the SER for Amendment 106 that implemented ITS.

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 no physical changes are made to plant systems, structures, or components or in the manner of how they are operated. The proposed activity is an administrative relocation of a plant requirement from the TRM to a procedure with the equivalent control mechanism for subsequent changes as currently exists in the TRM. Therefore, there is no impact on equipment failures or malfunctions. Additionally, there are no new failure modes introduced by the relocation of the requirements.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because systems or functions are not impacted so as to create the possibility of an accident or malfunction of a type different from those previously evaluated in the SAR.

No technical changes (either actual or interpretational) were made in transferring the relocated items to procedures. In addition, the method of controlling subsequent changes to these miscellaneous requirements is equivalent. Relocation of these miscellaneous requirements does not involve any physical changes to plant systems, structures, or components (SSC), nor decrease the level of safety to which these SSCs are operated and maintained.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because each of the relocated TRM requirements was previously removed from the Technical Specifications during the conversion to ITS. Therefore, no Technical Specification Bases are impacted.

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For Calendar Year 2000

6G-00-0046
BY1C10 Expanded COLR

DESCRIPTION:

The Expanded Core Operating Limits Report (COLR) License Amendment revised Technical Specification Sections 2.1.1, 3.4.1, Table 3.3.1-1, and 5.6.5 to relocate cycle-specific RCS related parameter limits to the Core Operating Limits Reports (COLR) for both Units 1&2 shown below:

- SL 2.1.1 Reactor Core Safety Limits (SLs)
- LCO 3.3.1 Reactor Trip System (RTS) Instrumentation
- LCO 3.4.1 Reactor Coolant System (RCS) DNB Parameters

The sections listed above were directly transferred to the COLR with no changes to the values contained in each section. The updates to the COLRs are merely administrative in nature to comply with the License Amendment approved by the NRC.

An additional change not related to the Expanded COLR License Amendment implemented with this COLR update is the All Rods Out (ARO) Rod Insertion Limits (RIL) for the Shutdown and Control Banks. The ARO RIL is changing from the current ARO positions of 225 and 231 steps withdrawn for Unit 1 Cycle 10 and Unit 2 Cycle 9, respectively, to 224 steps withdrawn for both Unit 1 and Unit 2. This change affects Sections 2.4 and 2.5 of the COLR and Figure 2.5.1. The actual park position will remain unchanged at 225 steps withdrawn and 231 steps withdrawn for Byron Unit 1 Cycle 10 and Byron Unit 2 Cycle 9, respectively.

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 made to the Byron 1 Cycle 10 COLR are merely administrative in nature and do not change in any manner the operation, design, nor safety analysis of the Byron 1 Cycle 10 reactor core as originally documented in Safety Evaluation 6G-99-0060. The change in the definition of "fully withdrawn" does not change the prescribed park position, nor does it affect the core power distribution, core neutronics, or shutdown margin as originally analyzed for the Byron 1 Cycle 10 core design as documented in the safety evaluation references.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the changes made to the Byron 1 Cycle 10 COLR are merely administrative in nature and do not change in any manner the operation, design, nor safety analysis of the Byron 1 Cycle 10 reactor core as originally documented in Safety Evaluation 6G-99-0060.

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6G-00-0046
BY1C10 Expanded COLR
(Cont'd.)

The change in the definition of "fully withdrawn" does not change the prescribed park position, nor does it affect any accident analyzed in the SAR as documented in the safety evaluation references.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the core reload design process safety analysis was performed in accordance with NRC approved methodologies and indicates that BY1C10 operates within acceptable limits and margin is maintained. This COLR update does not change any of the analyses or conclusions previously performed for the Byron 1 Cycle 10 core design.

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10 CFR 50.59 Report
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6G-00-0047
BY2C9 Expanded COLR

DESCRIPTION:

The Expanded Core Operating Limits Report (COLR) License Amendment revised Technical Specification Sections 2.1.1, 3.4.1, Tables 3.3.1-1, and 5.6.5 to relocate cycle-specific RCS related parameter limits to the COLR for both Units 1 & 2 shown below:

- SL 2.1.1 Reactor Core Safety Limits (SLs)
- LCO 3.3.1 Reactor Trip System (RTS) Instrumentation
- LCO 3.4.1 Reactor Coolant System (RCS) DNB Parameters

The sections listed above were directly transferred to the COLR with no changes to the values contained in each section. The updates to the COLRs are merely administrative in nature to comply with the License Amendment approved by the NRC.

An additional change not related to the Expanded COLR License Amendment implemented with this COLR update is the All Rods Out (ARO) Rod Insertion Limits (RIL) for the Shutdown and Control Banks. The ARO RIL is changing from the current ARO positions of 225 and 231 steps withdrawn for Unit 1 Cycle 10 and Unit 2 Cycle 9, respectively, to 224 steps withdrawn for both Unit 1 and Unit 2. This change affects Sections 2.4 and 2.5 of the COLR and Figure 2.5.1. The actual park position will remain unchanged at 225 steps withdrawn and 231 steps withdrawn for Byron Unit 1 Cycle 10 and Byron Unit 2 Cycle 9, respectively.

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 made to the Byron 2 Cycle 9 COLR are merely administrative in nature and do not change in any manner the operation, design, nor safety analysis of the Byron 2 Cycle 9 reactor core as originally documented in Safety Evaluation 6G-99-0197. The change in the definition of "fully withdrawn" does not change the prescribed park position, nor does it affect the core power distribution, core neutronics, or shutdown margin as originally analyzed for the Byron 2 Cycle 9 core design as documented in the Safety Evaluation references.
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 being made to the Byron 2 Cycle 9 COLR are merely administrative in nature and do not change in any manner the operation, design, nor safety analysis of the Byron 2 Cycle 9 reactor core as originally documented in Safety Evaluation 6G-99-197. The change in the definition of "fully withdrawn" does not change the prescribed park position, nor does it affect any accident analyzed in the SAR as documented in the Safety Evaluation references.

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6G-00-0047
BY2C9 Expanded COLR
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the core reload design process safety analysis was performed in accordance with NRC approved methodologies and indicates that BY2C9 operates within acceptable limits and margin is maintained. This COLR update does not change any of the analyses or conclusions previously performed for the Byron 2 Cycle 9 core design.

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6G-00-0104
TRM 3.10.D & 3.10.E Revisions

DESCRIPTION:

The proposed activity revises TRM Surveillance Requirements TSR 3.10.d.5 "Verify flow from each nozzle during a Puff Test" and TSR 3.10.e.4 "Perform a flow test through each header and nozzle" to a new surveillance requirement that states, "Visually verify each nozzle for integrity and discharge path unobstructed."

Selected station CO2 and Halon suppression system surveillance procedures were revised to make two basic changes. The first change replaces cardox and nitrogen with air in various fire protection system (FP) functionality tests and the second changes the methodology for performing the Cardox puff and halon full flow tests described in the Technical Requirements Manual.

Selected station Fire Protection Detection System surveillance procedures were deleted and the steps from the original procedure were incorporated into the suppression system surveillance procedure for that zone. Therefore, there is a single surveillance procedure that performs the required tests for the zone's suppression and detection systems.

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 to the TRM and FP detection and suppression surveillance procedures do not change the occupancy or increase the fire hazards in any plant fire zone, and do not remove, degrade, or alter any fire protection system. The proposed changes to the TRM and the fire protection system surveillance procedures are only implemented during surveillance testing of the systems and do not impact how equipment is operated or their function. The changes do not impact equipment important to safety that are relied upon to achieve safe shutdown following a fire. Therefore, the proposed changes and the consequences of a design basis fire do not affect the conclusions of the Safe Shutdown Analysis (SSA) in FPR Section 2.4.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed changes to the TRM and the fire protection system surveillance procedures do not physically add fire protection systems to any areas of the plant or make any changes to how these systems operate. Individual components of the FP systems are only affected during the performance of scheduled surveillance testing.

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6G-00-0104
TRM 3.10.D & 3.10.E Revisions
(Cont'd.)

The proposed changes during fire protection system surveillance testing does not affect the operation of other plant systems or equipment or introduce new failure modes. Therefore, the proposed changes do not create the possibility of a malfunction of equipment or accident of a different type other than previously evaluated.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced. The proposed changes do not alter the implementation of the approved Fire Protection Program as described in Technical Specification 5.4.1. However, some changes in the details of procedures performed during surveillance testing will be made. These changes do not affect any margin associated with the approved Fire Protection Program.

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6G-00-0137

Technical Specification Bases Change Request 00-015
Technical Requirements Manual Change Request 00-017

DESCRIPTION:

Revise Byron and Braidwood TRM Section 3.9.1, including Action Condition A and Surveillance Requirement TSR 3.9.a.1 to change the required In Core Decay Time (ICDT) from ≥ 100 hrs to ≥ 80 hrs for outage B1R10 and ≥ 87 hours for outage A2R08 respectively. Also, this change removes the ICDT requirement of ≥ 90 hours for A1R08. For Byron only, a new Condition B and TSR 3.9.a.2 is added to ensure coastdown requirements are met. Byron and Braidwood Technical Specification Basis 3.9.4, "Containment Penetrations," will also be similarly revised to reference the new required decay times. Byron and Braidwood Technical Specification Basis 3.9.7, "Refueling Cavity Water Level," will be revised to delete Reference 5 on pages B3.9.7-1 and B3.9.7-3, and add Reference 2 to the end of the second paragraph. A new sentence will be added describing that a cycle-specific analysis supports the lower ICDT values for B1R10 and A2R08.

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 decrease in ICDT does not impact the equipment or procedures used to move fuel. The decrease in ICDT has been evaluated and the dose rates from a postulated Fuel Handling Accident (FHA) will remain less than the current design basis values in Table 15.0-11 for Byron and Table 15.0-12 for Braidwood. The increased heat load in the Spent Fuel Pool has been evaluated and found to be acceptable.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDT. The FHB rad monitors are qualified for the radiation field associated with an ICDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDT to ≥ 80 hours does not impact reactivity. The proposed change does not involve a physical alteration of the plant. No new equipment is introduced, and no installed equipment is operated in a new or different manner. The proposed change does not affect the capability of the fuel handling equipment. Thus, it is concluded that the proposed change does not create a new or different kind of accident.

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6G-00-0137

Technical Specification Bases Change Request 00-015
Technical Requirements Manual Change Request 00-017
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Fuel Handling Building (FHB) Ventilation System is not impacted by reduced ICDT. The FHB rad monitors are qualified for the radiation field associated with and ICDT of 50 hours. Spent Fuel Pool (SFP) water level is unchanged and the dose consequences of dropping an 80 hour ICDT fuel assembly are still acceptable as discussed above. SFP Boron concentration has been evaluated and reducing ICDT to ≥ 80 hours does not impact reactivity.

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6H-00-0010
TRM Sections 3.1.a, 3.1.c, 3.1.e

DESCRIPTION:

The purpose of the proposed change is to eliminate Mode 6 from the applicability statement of TRMs 3.1.a "Boration Flow Path – Shutdown", 3.1.c "Charging Pump – Shutdown", and 3.1.e "Borated Water Source – Shutdown".

The effect will be to transfer the function of maintaining boration capability in Mode 6 to the Shutdown Safety Management Program (SSMP), and distributing the function between the Centrifugal Charging pumps and Safety Injection (SI) Pumps. For compliance with Technical Specification 3.4.12, using an SI pump for the boration capability function will be restricted to those times when the reactor head is removed.

The SSMP monitors the availability of both SI and Centrifugal Charging pumps for boration in the "Reactivity Control" key safety functional area, for borated inventory addition in the "Inventory Control" key safety functional area, and for feed and bleed capability in the "Decay Heat Removal" key safety functional area. OU-AP-104, "Shutdown Safety Management Program Byron/Braidwood Annex" will require several minor modifications to explicitly state Refueling Water Storage Tank (RWST) boron and temperature requirements, emergency power requirements for SI pumps, and the Mode 6 Reactivity Control Safety Function Analysis Trees prior to implementation of the proposed activity. The directions for usage of the monitored components will continue to be BOA PRI-2, "Emergency Boration," which will be revised to provide usage instructions for all monitored components prior to implementation of the proposed activity.

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. The dilution accident is not credible in Mode 6 with the implementation of controls pursuant to Technical Specification 3.9.2 as discussed in UFSAR Section 15.4.6.3.
 - b. The function of Boration will be maintained with control transferred from the TRM to the SSMP.
 - c. Affected components are mitigation components, not involved in event initiation.

Since dilution is not credible in the specified mode and since the change is an administrative control function that does not alter the actual plant and since the affected components have no effect on event initiation, the probability of occurrence remains unaltered as a result of the proposed activity.

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6H-00-0010
TRM Sections 3.1.a, 3.1.c, 3.1.e
(Cont'd.)

The consequence of a dilution accident is a loss of shutdown margin that could ultimately lead to inadvertent criticality. The conclusions of UFSAR Section 15.4.6.3 indicate in all modes of operation the consequences of a boron dilution accident are either precluded, responded to by automatic functions or manual operations in a manner so that the required shutdown margin can be restored. For Mode 6, operation controls pursuant to Technical Specification 3.9.2 are credited for precluding the transient and these controls will remain unaltered as a result of the proposed activity. Since the transient is precluded both prior to and after the implementation of the proposed activity the consequences of the transient remain unaltered.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change is essentially a change in boration capability function control from the TRM to the SSMP in Mode 6. As a result all components will be operated in a manner consistent with the current practice. For compliance with Technical Specification 3.4.12, using an SI pump for the boration capability function will be restricted to those times when the reactor head is removed. All pumps and flow paths, both Chemical and Volume Control (CV) and SI systems, employed for the boration capability function are routinely surveilled with the plant in this configuration pursuant to various Technical Specification and ISI surveillance requirements. Since all components will be operated in a manner consistent with the current practice the existing safety evaluations remain valid for the spectrum of possible accidents and transients.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed changes do not impact any Technical Specifications (TS) or the Bases for any Technical Specification. Therefore, the margin of safety is not impacted.

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6H-00-0020
Technical Specification Bases Change (006-00) to Section 3.9.2

DESCRIPTION:

The proposed Bases change provides clarification of potential dilution source flowpaths. The change includes a description of when the Refueling Water Storage Tank (RWST) is considered a potential dilution source and the necessary actions to be taken in the unlikely event the RWST becomes a dilution source. The proposed Bases change clarifies that the RWST is only a potential dilution source if its boron concentration is below the refueling boron concentration specified in the Core Operating Limits Report (COLR).

In addition, discussion of when the Boric Acid Storage Tank (BAST) would be considered a potential dilution source and the necessary action to be taken in the unlikely event the BAST becomes a potential dilution source is added for consistency and clarity.

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 described in the UFSAR, the probability or the consequences of a boron dilution event during refueling is precluded by administrative controls which isolate unborated water sources. Technical Specification LCO 3.9.2, "Unborated Water Source Isolation Valves," precludes the possibility of an uncontrolled boron dilution event occurring during Mode 6 refueling operations by requiring that potential dilution sources be isolated. The proposed Bases change ensures all dilution flowpaths are isolated in the unlikely event that the RWST becomes a dilution source. The proposed Bases change clarifies that the RWST is only a potential dilution source if its boron concentration is below the refueling boron concentration specified in the COLR. Technical Specification LCO 3.9.1, "Boron Concentration," requires that the RCS, refueling canal, and the refueling cavity boron concentrations be above the limit specified in the COLR during refueling operations. Thus, if the RWST boron concentration is above the refueling boron concentration specified in the COLR, there is no credible means by which the RWST can dilute the RCS below the minimum required refueling boron concentration. The proposed change is consistent with the UFSAR and Section 15.4.6, "Chemical and Volume Control System Malfunction that Results in a Decrease in Boron Concentration in the Reactor Coolant," remains valid.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because revising the Bases to clarify when the RWST is considered a potential dilution source and identifying all potential dilution source flowpaths does not involve a physical alteration of the plant.

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6H-00-0020
Technical Specification Bases Change (006-00) to Section 3.9.2
(Cont'd.)

No new equipment is introduced, and installed SSCs are not operated in a new or different manner. UFSAR Section 15.4.6, "Chemical and Volume Control System Malfunction that Results in a Decrease in Boron Concentration in the Reactor Coolant," remains valid in that the proposed Bases change ensures that all potential dilution source flowpaths from the RWST are identified. Administrative control of these valves will be required in accordance with SR 3.9.2.1. Therefore, an uncontrolled dilution of the RCS to a value below the minimum required boron concentration for refueling as defined in the requirements of LCO 3.9.1, "Boron Concentration," is not credible. There is no change made to process parameters within which the plant is operated. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is assumed to be initiated in accident analysis nor will the function demands on credited equipment be changed. No alteration in the procedures which ensure the plant remains within analyzed limits is proposed, and no change is made to the procedures relied upon to respond to an off-normal event. As such no new failure modes are introduced. These changes do not alter assumptions made in the safety analysis. Therefore, the proposed change will not create the possibility of an accident or transient of a different type other than has been previously evaluated.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed Bases change simply provides clarification of the requirements to ensure that all unborated water sources are isolated thus precluding an uncontrolled dilution. The margin of safety remains unchanged by these administrative enhancements.

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For Calendar Year 2000

6H-00-0057
Various Procedures

DESCRIPTION:

This change is the revision to various procedures so that they represent the requirements of the newly revised TRM Sections 3.1.a, 3.1.c, and 3.1.e, Rev. 5. Since these procedures merely mimic the previously evaluated change and do not introduce any different changes, the original summary remains applicable. The original evaluation follows:

The purpose of the proposed change is to eliminate Mode 6 from the applicability statement of TRMs 3.1.a "Boration Flow Path – Shutdown", 3.1.c "Charging Pump – Shutdown", and 3.1.e "Borated Water Source – Shutdown".

The effect will be to transfer the function of maintaining boration capability in Mode 6 to the Shutdown Safety Management Program (SSMP) and distributing the function between the Centrifugal Charging pumps and Safety Injection (SI) Pumps. For compliance with Technical Specification 3.4.12, using a SI pump for the boration capability function will be restricted to those times when the reactor head is removed.

The SSMP monitors the availability of both SI and Centrifugal Charging pumps for boration in the "Reactivity Control" key safety functional area, for borated inventory addition in the "Inventory Control" key safety functional area, and for feed and bleed capability in the "Decay Heat Removal" key safety functional area. OU-AU-104, "Shutdown Safety Management Program Byron/Braidwood Annex", will require several minor modifications to explicitly state Refueling Water Storage Tank (RWST) boron and temperature requirements, emergency power requirements for SI pumps, and the Mode 6 Reactivity Control Safety Function Analysis Trees prior to implementation of the proposed activity. The directions for usage of the monitored components will continue to be _BOA PRI-2, "Emergency Boration" which will be revised to provide usage instructions for all monitored components prior to implementation of the proposed activity.

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. The dilution accident is not credible in Mode 6 with the implementation of controls pursuant to Technical Specification 3.9.2 as discussed in UFSAR Section 15.4.6.3.
 - b. The function of Boration will be maintained with control transferred from the TRM to the SSMP.
 - c. Affected components are mitigation components, not involved in event initiation.

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6H-00-0057
Various Procedures
(Cont'd.)

Since dilution is not credible in the specified mode and since the change is an administrative control function that does not alter the actual plant and since the affected components have no effect on event initiation, the probability of occurrence remains unaltered as a result of the proposed activity.

The consequence of a dilution accident is a loss of shutdown margin that could ultimately lead to inadvertent criticality. The conclusion of UFSAR Section 15.4.6.3 indicate in all modes of operation the consequences of a boron dilution accident are either precluded, responded to by automatic functions or manual operations in a manner so that the required shutdown margin can be restored. For Mode 6, operation controls pursuant to Technical Specification 3.9.2 are credited for precluding the transient and these controls will remain unaltered as a result of the proposed activity. Since the transient is precluded both prior to and after the implementation of the proposed activity, the consequences of the transient remain unaltered.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the change is essentially a change in boration capability function control from the TRM to the SSMP in Mode 6. As a result, all components will be operated in a manner consistent with the current practice. For compliance with Technical Specification 3.4.12, using a SI pump for the boration capability function will be restricted to those times when the reactor head is removed. All pumps and flowpaths, both Chemical and Volume Control (CV) and SI systems, employed for the boration capability function are routinely surveilled with the plant in this configuration pursuant to various Technical Specification and ISI surveillance requirements. Since all components will be operated in a manner consistent with the current practice the existing safety evaluations remain valid and continue to envelop the spectrum of possible accidents and transients.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed changes do not impact any Technical Specifications (TS) or the Bases for any Technical Specification. Therefore, the margin of safety is not impacted.

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10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0059
Bases Change 00-010

DESCRIPTION:

The proposed activity is to revise the current guidance in the Technical Specifications (TS) Bases Table B 3.6.3-1 for the actions required in the event a containment isolation valve or valves fail in Penetration 11 or 47. The two penetrations (P-11 and P-47) have been modified in recent outages to install a relief valve inside containment (RE022 and RF055 respectively) and the current guidance in the Technical Specification Bases Table fails to address the condition of both containment isolation valves inside containment becoming inoperable simultaneously. The proposed activity is to provide the needed guidance.

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 of any accident or transient is defined by the initiators of that event. Revising the Bases to reflect the installation of containment isolation valves and modifying the actions accordingly will not affect the initiators of any event. Therefore, the probability of occurrence is not increased.

Revising the Bases to reflect the installation of containment isolation valves and modifying the actions accordingly ensures that potential paths to the environment through containment isolation valves are minimized. Therefore, the consequences of any accident or transient are not increased.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because revising the Bases to reflect the installation of containment isolation valves and modifying the actions accordingly ensure the containment function is maintained. The systems associated with the affected containment penetration flowpaths (i.e., Reactor Equipment Drains (RE) and Reactor Floor Drains (RF)) will continue to function as designed. There is no change made to process parameters within which the plant is operated. There are no setpoints, at which protective or mitigative actions are initiated, affected by this Bases change. This change will not alter the manner in which equipment operation is assumed to be initiated in accident analysis nor will the function demands on credited equipment be changed. No alteration in the procedures which ensure the plant remains within analyzed limits is proposed, and no change is made to the procedures relied upon to respond to an off-normal event. As such no new failure modes are introduced. These changes provide assurance that the containment function assumed in the safety analysis will be satisfied. Therefore, the proposed Bases change will not create the possibility of an accident or transient of a different type other than previously evaluated.

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6H-00-0059
Bases Change 00-010
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed activity revises the Bases to reflect the installation of new containment isolation valves and modifies the actions accordingly to ensure the containment function is maintained. The actions proposed are in agreement with the existing actions for similar containment isolation valves.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0062
Bases Change 00-0012

DESCRIPTION:

The proposed activity is to revise the Technical Specification (TS) Bases pages (B 3.6.5-2 and B 3.6.6-5) to reflect the revised maximum containment air temperature of 333°F. This revision is the result of a core reload analysis, completed as part of the Steam Generator Replacement Project. Then analyses of the Main Steam Line Break (MSLB) resulted in a new peak temperature for inside containment of 333°F.

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 temperature increase does not change any initiating conditions defined in the design basis. The change is the result of an existing design basis accident; therefore, the probability or the consequences of an accident previously evaluated in the SAR is not increased. Furthermore, the off-site dose analysis is not increased by the change in the peak containment temperature inside containment during a MSLB. The containment and containment systems that function to prevent or control the release of radioactive fission products are not adversely impacted by the increase in peak temperature because the structure is within the design temperature and the equipment remains qualified. Temperatures above the current limit of 320°F occur for less than one minute.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because no new accidents, scenarios or malfunctions different from those evaluated in the SAR are created by increasing the containment peak air temperature. The increase in the peak temperature is a transient response and not in initiator of an accident.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no Technical Specification or parameters for which they are based are impacted by this proposed change.

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6H-00-0075
TRM Change of TSR 3.10.f.5
Procedure Changes for 0/1/2BMSR 3.10.f.4-5

DESCRIPTION:

The proposed change revises the Technical Requirements Manual, Section 3.10.f, Fire Hose Stations surveillance requirements, TSR 3.10.f.5. The existing requirement is to hydrostatically test each fire hose a three-year interval. The proposed change revises the surveillance requirement frequency for TSR 3.10.f.5 to read "5 years after new hose installation, and every 3 years thereafter."

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 change has no effect on any equipment important to safety. The effectiveness of mitigating a designed basis fire is not changed by the proposed activity; therefore, the consequence of a design fire is not increased.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed change does not effect fire development or the manner in which it is extinguished. Therefore, the proposed activity does not create an accident or transient of a different type from that currently considered in the Fire Hazards Analysis.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because Technical Specifications are not impacted by the proposed change.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0097

1/2BOSR 0.1-6 & Technical Specification Bases 3.9.2
Unit 1/2 Mode 6 Shiftly and Daily Operating Surveillance

DESCRIPTION:

This change is the implementation of procedures to match the revisions to TRMs 3.1.a, 3.1.c and 3.1.e. This change merely causes the procedures to reflect the requirements of the TRM sections.

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 is the revision to various procedures so that they represent the requirements of the newly revised TRM Sections 3.1.a, 3.1.c, and 3.1.e, Rev. 5. Since these procedures merely mimic the previously evaluated change and do not introduce any different changes, the original summary remains applicable. The original evaluation follows:

The purpose of the proposed change is to eliminate Mode 6 from the applicability statements of TRMs 3.1a "Boration Flow Path – Shutdown", 3.1.c "Charging Pump – Shutdown", and 3.1.e "Borated Water Source – Shutdown".

The effect will be to transfer the function of maintaining boration capability in Mode 6 to the Shutdown Safety Management Program (SSMP) and distributing the function between the Centrifugal Charging pumps and Safety Injection (SI) Pumps. For compliance with Technical Specification 3.4.12, using a SI pump for the boration capability function will be restricted to those items when the reactor head is removed.

The SSMP monitors the availability of both SI and CV pumps for boration in the "Reactivity Control" key safety functional area, for borated inventory addition in the "Inventory Control" key safety functional area, and for feed and bleed capability in the "Decay Heat Removal" key safety functional area. OU-AU-104 "Shutdown Safety Management Byron/Braidwood Annex", will require several minor modifications to explicitly state Refueling Water Storage Tank (RWST) boron and temperature requirements, emergency power requirements for SI pumps, and the Mode 6 Reactivity Control Safety Function Analysis Trees prior to implementation of the proposed activity. The directions for usage of the monitored components will continue to be _BOA PRI-2, "Emergency Boration" which will be revised to provide usage instructions for all.

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6H-00-0097

1/2BOSR 0.1-6 & Technical Specification Bases 3.9.2
Unit 1/2 Mode 6 Shiftly and Daily Operating Surveillance
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because:
 - a. The dilution accident is not credible in Mode 6 with the implementation of controls pursuant to Technical Specification 3.9.2 as discussed in UFSAR Section 15.4.6.3.
 - b. The function of Boration will be maintained with control transferred from the TRM to the SSMP.
 - c. Affected components are mitigation components, not involved in event initiation.

Since dilution is not credible in the specified mode and since the change is an administrative control function that does not alter the actual plant and since the affected components have no effect on event initiation, the probability of occurrence remains unaltered as a result of the proposed activity.

The consequence of a dilution accident is a loss of shutdown margin that could ultimately lead to inadvertent criticality. The conclusions of UFSAR Section 15.4.6.3 indicate in all modes of operation the consequences of a boron dilution accident are either precluded, responded to by automatic functions or manual operations in a manner so that the required shutdown margin can be restored. For Mode 6, operation controls pursuant to Technical Specification 3.9.2 are credited for precluding the transient and these controls will remain unaltered as a result of the proposed activity. Since the transient is precluded both prior to and after the implementation of the proposed activity, the consequence of the transient remain unaltered.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the proposed changes do not impact any Technical Specifications (TS) or the Bases for any Technical Specification. Therefore, the margin of safety is not impacted.

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10 CFR 50.59 Report
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6H-00-0166
TRM Revision to Requirements 3.1.g & 3.1.k

DESCRIPTION:

Revise the Actions of TRM Limiting Conditions of Operation (TLCO) 3.1.g, "Position Indication System – Shutdown," and TLCO 3.1.k, "Position Indication System – Shutdown (Special Test Exception)." The proposed changes include:

1. Providing a restoration time of 15 minutes when the required Digital Rod Position Indication (UFSAR DRPI) is inoperable in Modes 3, 4, 5.
2. Providing comparable alternate Actions in lieu of opening the Reactor Trip Breakers (RTBs) and Reactor Trip Bypass Breakers (RTBBs), i.e., initiate action to fully insert all rods or initiate boration to restore the RCS boron concentration to within the limits specified in the Core Operating Limits Report (COLR).

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 Position Indication System requirements in Modes 3, 4, and 5 does not meet the criteria for inclusion specified in 10 CFR 50.36, "Technical Specifications". In Mode 3, 4 and 5, failure to provide proper rod position indication has the potential to affect the mode required reactivity margin-to-critical conditions, but this effect can be compensated for by an increase in the boron concentration of the RCS or an insertion of control rods. The boron concentration specified in the COLR has been conservatively calculated and ensures that the Shutdown Margin (SDM) requirements of Technical Specification LCO 3.1.1 continue to be met.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed change does not involve a physical alteration to the plant. No new equipment is introduced and no installed equipment is operated in a new or different manner. Safe plant operation will not be affected by this change since the restoration time is appropriate and the proposed alternate actions comparable.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the boron concentration limits specified in the COLR have been conservatively calculated and ensure that the SDM requirements of Technical Specification LCO 3.1.1 continue to be met.

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<u>MISCELLANEOUS</u>	
1.	6G-00-0010
2.	6G-00-0021
3.	6G-00-0055
4.	6G-00-0079, Rev. 1
5.	6G-00-0080
6.	6G-00-0086
7.	6G-00-0089
8.	6G-00-0093
9.	6G-00-0119
10.	6G-00-0124
11.	6G-00-0136
12.	6G-00-0150
13.	6G-00-0166
14.	6H-00-0027
15.	6H-00-0029
16.	6H-00-0030
17.	6H-00-0033
18.	6H-00-0041 & 6H-00-0051
19.	6H-00-0061
20.	6H-00-0154
21.	6H-00-0184

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0010
SAAD 2000-0021

DESCRIPTION:

The output to the Safety Parameter Display System (SPDS) was changed by averaging the input from transmitter 2LI-PC002 only. This allows the SPDS to display the true sump level while transmitter 2LIPC003 is awaiting repairs.

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 activity will lock-out an already inoperable 2LI-PC003 from SPDS. Level instrument 2LI-PC003 provides added indication for the operator during accident situations. The operator has an array of other indicators available to validate the output of level instrument 2LI-PC002. Level instrument 2LI-PC003 has not been physically changed in the plant, only its electronic input to the SPDS is removed. Therefore, this activity will not increase the probability of occurrence of a malfunction of equipment important to safety.

The Emergency Operating Procedures (EOP) do not require the operator to utilize the 2LI-PC002 or 2LI-PC003 level loops, although they may be used for supplemental information. In addition, the Emergency Action Levels (EAL) do not require the use of these level loops to support GSEP declarations, although TSC or EOF personnel can use them to monitor sump levels. The SPDS will indicate to the operator when the value is not within specification and he then knows to validate and verify the information by checking the other available indications.

In effect, the level indicators (2LI-PC002 and 2LI-PC003) do not provide an implicit safety function, as evidenced by their removal from the Improved Technical Specifications (ITS) and relocation to the Technical Requirements Manual (TRM). Therefore, this activity will not increase the consequences of a malfunction of equipment important to safety.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity removes 2LI-PC003 as an input into SPDS. Level instrument 2LI-PC003 provides added indication for the operator during accident situations. The operator has an array of other indicators available to validate the output of level instrument 2LI-PC002. Because the input from level instrument 2LI-PC003 only provides indication, there is no possibility of a different type of malfunction of equipment important to safety.

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For Calendar Year 2000

6G-00-0010
SAAD 2000-0021
(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the SPDS will indicate to the operator when the value is not within specification and he then knows to validate and verify the information by checking the other available indications. In effect, the level indicators (2LI-PC002 and 2LI-PC003) do not provide an implicit safety function, as evidenced by their removal from the Improved Technical Specifications (ITS) and relocation to the Technical Requirements Manual (TRM). Removing the SPDS input from level instrument 2LI-PC003 would actually improve indication to the operator, by removing the potentially "false" indication currently displayed. Therefore, this activity does not reduce the margin of safety as described in the Technical Specifications.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0021

Byron Station, Second 10 Year In Service Inspection Program Plan (ISIPP), Rev. 2

DESCRIPTION:

Revision 2 of the In Service Inspection Program Plan (ISIPP) was initiated to standardize the ISI plans among the Unicom five nuclear stations to ensure that technical content, interpretations, and standard industry practices were incorporated as required.

Revision 2 changes include:

1. New format.
2. Expanded sections on Diagram Process and Installation descriptions.
3. Ensured examination boundaries are consistent with current code requirements.
4. Changes to components selected for examination to be consistent with current code requirements.
5. Additional requests for relief from code requirements have been identified as drafted and to be submitted at a later date (no change to program plan).

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. The continued performance of non-destructive examinations as directed by the ISIPP will ensure that any defects or previously noted indications that have been dispositioned as acceptable will/are monitored and corrected before any failure or malfunction would occur.

The revised ISIPP pertains to the component population determination, selection and scheduling of code and regulatory required non-destructive examinations. These changes are administrative in nature and do not affect operation nor make any physical changes. It will ensure that continued compliance with Code of Federal Regulations, Title 10, Part 50, Section 55a, (10 CFR 50.55a), and compliance with the 1989 Edition, no addenda, of the ASME Boiler and Pressure Vessel Code, Section XI, Division 1, Subsection IWA is maintained.

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6G-00-0021

Byron Station, Second 10 Year In Service Inspection Program Plan (ISIPP), Rev. 2
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because since the ISIPP determines examination populations and does not physically change the existing design or configuration of the plant. No new malfunctions are created and therefore no change in the probability of malfunction is created. The ISIPP is an administrative document, which implements non-destructive examination activities. In addition, there are no affects to operations or physical plant changes associated with this revision. Examinations performed in accordance with the ISIPP, ensure accident assumptions and mitigating functions are not changed, therefore no new malfunction types are created. Examinations performed in accordance with the ISIPP, ensure accident probability of occurrence are not changed.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because since the ISIPP, determines examination populations and does not physically change the existing design or configuration of the plant. The ISIPP is an administrative document, which implements non-destructive examination activities. Examinations performed in accordance with the ISIPP, ensure accident probability of occurrence are not changed.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0055
REMP Sample Location Change

DESCRIPTION:

The proposed activity is to change the Radiological Environmental Monitoring Program, REMP, milk sample control location from 2311 South Hoisington Road, Winnebago, IL, 1.2 miles East to 12284 Cunningham Road, Winnebago, IL.

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 of equipment important to safety previously evaluated in the safety analysis report is not increased because the activity has no interaction with any system, structure or component.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the activity has no interaction with any system, structure or component.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety is not reduced because no limit for reporting is changing and no sampling frequency is reduced. This activity adheres to the requirements listed in ODCM, Chapter 12, Table 12.5-1, for milk sample control location.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0079, Rev. 1
Installation of AMAG™ Flow Measuring Device

DESCRIPTION:

The proposed activity is undertaken to correct overly conservative reactor thermal power calculations, which result from the Feedwater flow venturi readings that are biased because of fouling and other venturi induced measurement inaccuracies that are associated with the Feedwater venturis. Correction factors will be developed based on Feedwater flow measurements obtained using ultrasonic instruments. The ultrasonic flow measuring devices have a higher degree of accuracy than do the venturis and are not affected by fouling and other venturi induced measurement inaccuracies. Therefore, these measurements can be used to correct the venturi readings (application of correction factors) to obtain more accurate calorimetric reactor thermal power calculations and operate the plant closer to the licensed rating.

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 activity does not increase the probability of any accidents/transients identified. The use of ultrasonic flow measurements to more accurately determine reactor power by correcting for Feedwater venturi fouling and other venturi induced flow measurement uncertainties will not increase the probability of occurrence of any accident or transient. The ultrasonic flow measurements will be taken periodically; correction factors will be manually input to the plant computer and used in the calorimetric calculations to determine reactor power. There are no control functions or control setpoint features associated with the collection of data, development of the correction factor or use of this factor in the calculation of reactor thermal power. The use of these correction factors does not reduce the reliability of the Feedwater venturis or the plant computer and hence will not result in the probability of occurrence of an accident or transient. Actually, this correction factor will allow the plant to operate closer to the 100% rated thermal power.

The ultrasonic flow measurement system has no direct interface with the plant. The data collection of the ultrasonic flow measurements uses dedicated separate equipment, which has no interface (except 120V AC power temporarily during data gathering) with any plant system, or equipment. The correction factor is manually input and has no control function. Guidance in the form of an operator aid and operating procedure is provided to operations personnel to ensure that the factor to correct for fouling of the Feedwater venturi is not used in the event a potentially defouling transient occurs. Cessation of the use of the correction factor, the lack of interface with plants systems, equipment or components and the benign nature of the physical installation ensure that this proposed activity will not increase the probability of a malfunction of equipment important to safety.

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6G-00-0079, Rev. 1
Installation of AMAG Flow Measuring Device
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the defouling is not a new accident or transient. After a defouling event, calorimetric reactor power indication is reduced. Operator action would be required based on the single indication of reactor power (calorimetric) to increase reactor power above its previous value. As with other defouling events, the reactor operator would halt the use of the ultrasonic Feedwater flow measurement correction factor until such time as the ultrasonic flow measurement data could be recollected and a new correction factor developed.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because as evaluated in safety evaluation, the implementation of AMAG™ instrumentation to correct feedwater flow measurement will not affect the function, operation or margin of safety for any SSCs required by the Technical Specifications. The modification does not involve changes to any parameters upon which the Technical Specifications are based.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0080
Nuclear Design Information Transmittal (NDIT) BYR-2000-005

DESCRIPTION:

The proposed activity provides storage of a hoist on the containment polar crane bridge platform for use during refueling outages. This hoist and associated equipment will be stored between refueling outages inside a steel container, secured to the polar crane structure such that it will have no potential impact on the operation of the plant during normal operating conditions as well as accident conditions.

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 storing of a hoist in the Unit 1 and 2 Containments will not increase the probability of any accident or transient, or malfunction of equipment and will not increase or affect off-site dose since materials will be stored in an enclosure which is secured to prevent any interaction with safety-related components. In addition, the stored materials do not interface with any plant systems. No potential of sump blockage or seismic interaction will occur. No additional potential for generation of combustible gas exists. Also, the effect on passive heat sinks in containment can cause an increase in peak clad temperatures. This increase was determined to be negligible for storage of this item. In addition, the polar crane does not perform any mitigating function with respect to mitigation of the effects of accidents or equipment malfunctions.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the storing of a hoist on the polar crane will not create an accident or malfunction of a different type other than previously evaluated since the requirements provided by NDIT BYR-2000-005 provide the necessary controls to prevent introduction of materials that can adversely affect the containment environment. These materials will be located in an area that does not contain safety related equipment and does not change the design function of any systems or components.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the reduction in free containment volume is negligible. Also, the effect of the increase in passive heat sinks is negligible.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6G-00-0086
Byron 1 Cycle 11 Reload Design

DESCRIPTION:

This safety evaluation was performed for the Byron Unit 1 Cycle 11 (BY1C11) core reload design. The change evaluated encompasses the composite effects of the following changes:

1. Fuel loading pattern.
2. Fuel mechanical design changes:
 - a. Lengthen guide tubes and instrument tubes by 0.2 inches.
 - b. Lengthen fuel rod by 0.32 inches.
 - c. Shorten endplug by 0.12 inches (previously used design).
 - d. Change from P+ to Zirc-4 spring pack with new variable pitch.
 - e. Raise bottom Inconel grid 0.7 inches.
 - f. Lower first Zircaloy mid-grid 0.3 inches.
 - g. Integral Fuel Burnable Absorber loading of 1.5X with 100 psig backfill pressure.
 - h. Lengthen Axial Blankets from 6" to 8".
 - i. Use of Bead Blasted Inconel 600 Top Nozzle Spring Screws.
3. Relocate Secondary Sources into C-8 and N-8.
4. Rod Control Cluster Assembly (RCCA) park position of 228 steps with the exception of Shutdown Bank A (SBA), which will be parked at 231 steps. Change Rod Insertion Limit (RIL) to correspond to new park positions.
5. Use of 20 Wet Annular Burnable Absorbers for a second cycle.
6. Elimination of Thimble Plugs for fuel assemblies with no other insert.
7. Installation of 27 new RCCAs as a "like-for-like" replacement.
8. Change Axial Flux Difference (AFD) target bands from (+3, -12) to (+5, -10) in the Core Operating Limits Report (COLR).

The changes were incorporated into many implementing procedures, including the Byron Curve Book, the Reload Design Key Parameter Checklist, COLR, and UFSAR Draft Revision Package 9-017.

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 fuel construction meets all design criteria. The core fuel loading pattern and changes in operating characteristics do not produce any mechanisms by which any of the evaluated accidents, such as LOCAs or HELBs, etc., can be initiated. The consequences of previously evaluated accidents are not increased because the reload design process confirmed all design parameters satisfy the accident analysis limits and assumptions as documented in the UFSAR or other appropriate evaluations. The analyses included mechanical, nuclear, thermal-hydraulic and transient analyses, which concluded that all core parameter criteria, such as DNB, PCT, and fuel temperature, were met.

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6G-00-0086
Byron 1 Cycle 11 Reload Design
(Cont'd.)

In addition, the analyses showed that all system performance criteria, such as containment pressure and no water through pressurizer safeties were met.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because this core reload's fuel mechanical features introduce no new failure modes. The reload key parameters and assumptions meet all standards and criteria. The core operates within pertinent design basis operating limits. Therefore, the cycle specific changes in these parameters introduce no new failure modes.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the core reload design process safety analysis was performed in accordance with NRC approved methodologies and indicates that BY1C11 operates within acceptable limits and margin is maintained.

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6G-00-0089
Design Information Transmittal (DIT) BYR-2000-074

DESCRIPTION:

The proposed activity stores a stainless steel filter/vacuum housing (Tri-Nuc UFV-260) in the refueling (reactor) cavity during plant operation.

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 storing of the filter housing in the Unit 1 & 2 Containments during operation will not increase the probability of any accident or transient, or malfunction of equipment and will not increase or affect off-site dose since the filter will be located to prevent any interaction with safety-related equipment. In addition, the filter housing does not interface with any plant systems. No potential of sump blockage or seismic interaction will occur. No potential for generation of combustible gas exists. Also, the effect on passive heat sinks in containment can cause an increase in peak clad temperatures. This increase was evaluated and is considered bound by current analyses.
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 storing the filter housing in the Unit 1 & 2 Containments will not create an accident or malfunction of a different type than previously evaluated since the requirements in the DIT provide the necessary controls to prevent introduction of materials that can adversely affect the containment environment. This housing will be located in an area that does not contain safety related equipment. Also, this item does not change the design function of any systems or components.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the reduction in free containment volume has been determined to be negligible. Also, the effect of the increase in passive heat sinks is bound by the current analysis.

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6G-00-0093

Activities Associated with the Lead Test Assembly (LTA) Inspection Project

DESCRIPTION:

Perform activities associated with the Byron Lead Test Assembly (LTA) inspection project. The work scope includes fuel assembly length measurements and assembly bow TV examination. These inspections are performed while the fuel assembly is suspended from the spent fuel pool handling tool with a wire rope held secure to the fuel assembly. Direct view and side view assembly bow data is obtained by measuring the distance between the wire rope and an outer grid slot and the edge of the grid, respectively. Other activities include fuel reconstitution of one LTA, fuel reconstitution of the high burnup donor assembly, crud scraping, cell size measurements, peripheral rod corrosion exam, individual rod exam (rod cleaning, gamma scan, profilometry, and single rod oxide exam) grid oxide, grid width, thimble tube oxide and grid vane removal.

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 previously evaluated in the SAR are not increased during the proposed activities. The current fuel handling accident analysis bounds any event that could arise during the proposed activity. The equipment important to safety for the fuel handling accident outside containment is the Fuel Handling Building exhaust filtration system. Since the filters and associated equipment are not affected, the consequences evaluated in the SAR for fuel handling accident will not increase due to malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity does not alter any operational or postulated accident condition loadings or change any postulated accident initiating or mitigating conditions. The utilization of these procedures does not create any new limiting single failures.

The possibility of fuel failures resulting from equipment catastrophic failures or misuse are not new modes of failure and are bound under the current safety analysis assumptions. All original design criteria continue to be met such that the ability of any safety related equipment to perform their intended safety function is not affected.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the reconstitution, grid vane removal and characterization of the LTAs does not affect any parameters upon which Technical Specifications are based.

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6G-00-0119
CISIPP, Rev. 1

DESCRIPTION:

This 50.59 evaluation is to document the review of Byron Station Units 1 and 2 Containment Inservice Inspection Program Plan (CISIPP), Revision 1.

SAFETY EVALUATION SUMMARY:

The development and implementation of the CISIPP does not alter, change or otherwise impact any system, structure or component. The methods of examination and the scheduling of the non-destructive examinations on various containment components are included and specified in the CISIPP; however, these methods will not physically alter the systems subject to these examinations. The CISIPP establishes required non-destructive examination and testing requirements for the containment, as described in the SAR documents, to insure the integrity of the containment and its component parts.

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 since the CISIPP determines examination populations and does not physically change the existing design or configuration of the plant, no new malfunctions are created and therefore, no change in the probability of malfunction is created. The CISIPP is an administrative document which implements non-destructive examination activities. Examinations performed in accordance with the CISIPP ensure accident probability of occurrence is not changed.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because since the CISIPP determines examination populations and does not physically change the existing design or configuration of the plant, no possibility of new or different type of malfunction is created. The CISIPP is an administrative document which implements non-destructive examination activities. In addition, there are no affects to operations or physical plant changes associated with this revision. Examinations performed in accordance with the CISIPP ensure accident assumptions and mitigating function are not changed therefore no possibility of an accident or new malfunction types are created.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because no physical changes in any system, structure, or component is performed as a result of the implementation of the CISIPP. The Technical Specification requirements and basis remain unchanged. The Technical Specification surveillance requirements to insure containment integrity and operability remain unchanged.

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6G-00-0124
Design Information Transmittal (DIT) BYR-2000-057

DESCRIPTION:

The proposed activity stages miscellaneous outage tools and equipment (not including scaffolding and lead shielding) inside containment prior to refueling outage (B1R10).

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 staging of outage materials in the Unit 1 Containment prior to Mode 5 will not increase the probability of any accident or transient, or malfunction of equipment and will not increase or affect off-site dose since materials will be located or secured to prevent any interaction with safety-related equipment. In addition, the staged materials do not interface with any plant systems. No potential of sump blockage or seismic interaction will occur. Additional potential for generation of combustible gas due to reactive materials will not increase concentrations above permissible levels. Also, the effect on passive heat sinks in containment can cause an increase in peak clad temperatures. This increase was evaluated and is considered bound by current analysis.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the staging of outage materials in the Unit 1 Containment prior to Mode 5 will not create an accident or malfunction of a different type other than previously evaluated since the requirements in DIT BYR-2000-057 provide the necessary controls to prevent introduction of materials that can adversely affect the containment environment. These materials will be located in an area that does not contain safety-related equipment or will be secured to prevent interaction with this equipment. Also, these items do not change the design function of any systems or components.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the reduction in free containment volume has been determined to be negligible. Also, the effect of the increase in passive heat sinks is bound by the current analysis.

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6G-00-0136
Design Information Transmittal (DIT) BYR-2000-032, Rev. 0

DESCRIPTION:

Provide guidelines for staging temporary lead shielding blankets inside the Unit 1 Containment during Mode 1 prior to refueling outage B1R10.

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 lead blankets will be of sufficient distance from any safety-related equipment, and stacked in a manner that would prevent them from damaging equipment important to safety. The increase of chlorides (chemical breakdown of the blanket material) was determined to be insignificant. The covering material used to protect the lead shielding has been evaluated and determined to be acceptable and will be tied down in such a way that will prevent it from interacting with any plant equipment.

The only area of concern is primary water or containment spray coming in direct contact with the lead. This could result in hydrogen generation and lead/chloride interaction. The lead blankets were tested for hydrogen generation and lead/chloride interaction. For hydrogen generation, no significant amount of combustible gases would be released during a LOCA. The release of chloride/lead is driven by the amount of water coming in contact with the blanket and time. The blankets will be placed above the flood level of 75 inches and covered with a material that will shield the blankets from any water spray. Therefore, chloride and lead released into containment during an accident is considered insignificant. The staging of temporary lead blankets in containment will not increase or affect offsite dose. Therefore, this activity does not increase the consequences of an accident or transient. The covering has also been evaluated and it was determined that it is unaffected by exposure to LOCA conditions.

The staging of covered temporary lead blankets will not degrade the performance of any safety-related system nor challenge the safety-related functions of any system. The covered lead blankets will be staged in an area that will be of sufficient distance from any safety-related systems or components. Also, since the lead blankets and cover will be located above the 75 inch flood height and away from high energy lines, the blanket material or covering will not break apart and cause blockage to the containment recirculation sump. The addition of lead blankets (passive heat sinks) in containment can cause an increase in peak clad temperatures. This increase was evaluated and is considered insignificant for temporary storage of lead blankets.

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6G-00-0136
Design Information Transmittal (DIT) BYR-2000-032, Rev. 0
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the additional weight of the lead shielding and cover has been evaluated and determined to be acceptable by calculations that verified an acceptable margin was available for the affected beams. The material used to cover the lead blanketing has also been evaluated and determined to be acceptable. The material is staged such that it will not interact with equipment important to safety. Due to this, the lead shielding and cover are not considered to be an initiator of an event, nor do they have the potential to create a new failure not previously evaluated.

The staging of temporary lead blankets on elevations 401' and 412' will not create the possibility of a different type of malfunction of equipment important to safety because this material does not interface with nor does it have the possibility to interfere with any equipment important to safety.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the function of the equipment affected by this change is not associated with any Technical Specification acceptance limit or margin of safety. The addition of the lead blankets does not impact containment integrity, containment pressure, or containment air temperature. Therefore, the margin of safety is not reduced.

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6G-00-0150
Diagram Revision M-48-5B, Rev. AL & UFSAR Figure 11.02-06, Sheet 2

DESCRIPTION:

The proposed activity is to revise Diagrams M-48 Sheet 5B, and UFSAR Figure 11.02-06 Sheet 02 to match as-built configuration. Solenoids were installed on the Unit 2 Steam Generator blowdown valves (2SD054/D/F/H) during initial construction. However, the affected diagrams were not revised.

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 change is to revise the diagrams only to reflect the as-built configuration of the Unit 2 Steam Generator blowdown. Thus, the change will not impact the plant operation or the design of the steam generator blow down system.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the function of the Unit 2 steam generator blowdown system will not be affected by this change. The blowdown system is to maintain the steam generator chemistry within specified limits. The change is to reflect the as-built configuration of the blowdown valves. The change will not affect the plant operation or the design of the blowdown systems.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety will not be reduced because the proposed change will not affect the plant operation or the function of the blowdown systems. The change is to revise the diagrams to reflect the as-built configuration.

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6G-00-0166
Westinghouse Procedure MRS-SSP-1121 Rev. 0,
"Rod Control Cluster Assemblies (RCCA) Examination for 17X17 Arrays
at Byron 1 & 2 and Braidwood 1 & 2,"
including FC01, 02, and 03

DESCRIPTION:

The scope of work is to perform Eddy Current inspections of specific RCCAs in the Spent Fuel Pool (SFP). These inspections will be performed in the SFP by handling the RCCA with the Portable RCC Handling Tool to and from the RCCA Eddy Current Inspection Fixture.

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 are not increased during the proposed RCCA inspections activity. The single dropped fuel assembly accident (UFSAR Section 15.7.4) is still the limiting accidents and bounds the dropping of an RCCA and handling tool onto the spent fuel pool storage racks. The equipment important to safety for the single dropped fuel assembly accident outside of containment is the Fuel Handling Building exhaust filtration/ventilation system. Since the filtration/ventilation systems are not affected by the RCCA inspection activity, there is no change to the consequence of the single dropped fuel assembly accident as evaluated in the UFSAR (UFSAR Section 15.7.4).
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed RCCA Inspections do not create or change any assumptions for the single dropped fuel assembly accident condition or assumptions. Since the RCCAs will be handled as they would be during normal refueling moves, there are no malfunctions of a different type other than those previously analyzed.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the RCCA inspections do not affect any parameters upon which Technical Specifications are based.

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6H-00-0027
HPP-80944-11, Rev. 3
Rack Installation & Removal Procedure

DESCRIPTION:

This revision of the procedure adds Exhibit 6.11.1, Rigging of Rack for Additional East Travel and Exhibit 6.11.2, Rigging of Installation of Lift Rig in Existing Racks for Additional East Travel. Notes were added following steps 6.6.11, 6.7.3, and 6.7.5 that provide direction on use of the two new exhibits.

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged. The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

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Rack Installation & Removal Procedure
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident.

The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this rerecking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulics, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage, the proposed changes do not involve a reduction in the margin of safety.

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6H-00-0029
HPP-80944-11, Field Change Number 1
Rack Installation & Removal Procedure

DESCRIPTION:

This revision of the procedure adds changes to address the following concerns:

1. Inadequate room in the Fuel Handling Building (FHB) trackway to allow the rack to be set down without first pulling the truck and trailer out of the trackway and then moving the upender into position under the suspended rack.
2. Minor changes were made to the heavy load paths in Exhibit 6.5.4 in order to navigate around interferences.
3. HQP-19.2 has been replaced by HSP-35.
4. Sling lengths have been added to the bill of material listing.

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged.

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Rack Installation & Removal Procedure
(Cont.d)

The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident. The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this reracking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulics, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage, the proposed changes do not involve a reduction in the margin of safety.

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6H-00-0030
HPP-80944-11, Field Change Number 2
Rack Installation & Removal Procedure

DESCRIPTION:

This revision of the procedure adds changes to address the following concerns:

Therefore, to allow a change to the order of the installation/removal of the racks, but maintain documentation of the change, the Note prior to step 6.6.5 is revised to allow documentation of installation/removal order with an inter-office memo, signed by the Holtec Project Manager and Exelon, instead of a Field Change Notice (FCN).

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged. The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

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6H-00-0030
HPP-80944-11, Field Change Number 2
Rack Installation & Removal Procedure
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident.

The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this reracking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulics, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage, the proposed changes do not involve a reduction in the margin of safety.

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6H-00-0033
HPP-80944-14, Rev. 1 Field Change Number 1
Site Cell Rework Procedure

DESCRIPTION:

This revision of the procedure revises the Note on page 3 of 3 from the words "using a rubber mallet" to the words "suitable mechanical means" and also revises Exhibit 6.4.1 to provide additional data Material & Test Equipment, row and column numbers, etc.).

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 accidents were considered for:

- a) Spent fuel assembly dropped onto the spent fuel pool floor,
- b) Spent fuel assembly dropped between racks,
- c) Spent fuel assembly dropped between a rack and the spent fuel pool wall,
- d) Spent fuel assembly loaded contrary to placement restrictions,
- e) Spent fuel assembly dropped onto a rack,
- f) Spent fuel cask drop,
- g) Change in spent fuel pool water temperature,
- h) Loss of spent fuel pool cooling,
- i) Loss of spent fuel pool water level,
- j) Water quality of spent fuel pool.

Spent fuel handling tools and procedures are unchanged. Maximum assembly drop distance is unchanged. Spacing between racks and between racks and the Spent Fuel Pool wall are not appreciably changed. The new rack layout is a two region layout similar to the current layout. Radiological consequences of a dropped rod are bounded by the current analysis. There are no changes to the spent fuel cask handling equipment. With respect to water temperature changes impacting reactivity, the racks are analyzed at the most conservative temperature of 39 °F. There is no change to the spent fuel pool cooling system or its operation. The spent fuel pool leak detection system is not changed or affected, and the shielding depth is unchanged. The racks are manufactured entirely of non-organic materials that have proved use in spent fuel pool environments, therefore water quality is unaffected. The racks have been analyzed to support the loads allowed by this procedure.

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6H-00-0033
HPP-80944-14, Rev. 1 Field Change Number 1
Site Cell Rework Procedure
(Cont'd.)

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because operability of the cranes will be checked prior to use. Lift equipment and rigging will also be inspected prior to use. Operators of lift equipment and cranes will be trained prior to use. Safe load paths will be followed and Byron Stations' commitments to the provisions of NUREG-0612 will be implemented by use of written procedures that have been utilized for numerous other similar rack installation projects. The Technical Requirements Manual requires that Fuel Handling Building Crane loads be limited to 2000 pounds when traveling over fuel assemblies. A component drop would present limited structural damage to the spent fuel pool slab on grade, due to the slab founded on rock and soil. Local concrete crushing and possible liner puncture could occur. Failure of the liner would not result in a significant loss of water and no safety related equipment would be affected by the leakage. Adequate make up water is available from three separate sources. A component drop, therefore, does not create the possibility of creating a new or different kind of accident.

The additional heat load resulting from the additional storage capacity of 114 cells (i.e., approximately 4%) has been evaluated. The existing spent fuel pool cooling system has been shown to be capable of removing the decay heat generated by the additional spent fuel assemblies utilizing the standard Byron Station operating procedures. The possibility of a different type of accident occurring is not created since the new racks meet or exceed the requirements applicable to the existing racks.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety defined in the Bases for the Technical Specifications is not reduced; however, it was identified that Technical Specification changes are required. A Technical Specification change request was submitted via letter from R. Krich to NRC, dated 3/24/99 and was approved by NRC on 3/1/00. The Holtec Licensing Report has analyzed the consequences of this racking project by area. In each area, (i.e., criticality, seismic, structural, thermal hydraulics, and radiological exposure), design basis margins of safety will be maintained. Since all aspects of the design change have been demonstrated to be within the existing design basis for Byron Station and the NRC requirements applicable to spent fuel storage; the proposed changes do not involve a reduction in the margin of safety.

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10 CFR 50.59 Report
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6H-00-0041 & 6H-00-0051
Various Procedures Associated with DCPs 9700433 & 9700434

DESCRIPTION:

Various operating procedures to be revised to reflect the new equipment. The procedures affected are listed on attachment E of Design Change Packages (DCPs) 9700433 and 9700434. The operating procedures are changed to reflect the new equipment in 1(2)PA44J. The function of the system has not changed and thus the affect on the operating procedures is limited to the manipulation of the control cabinet's new 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 the loose parts monitoring system is passive external system used to detect metallic parts in the RCS. The loose parts monitoring system as described in the SAR has no accident or anticipated transient initiation potential, and no accident requires the LPMS to function or requires the LPMS to prevent an accident.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the possibility of an equipment malfunction of a different type is unchanged since a failure of the existing LPMS results in the same consequences as a failure of the proposed LPMS. The LPMS in containment is unchanged. The change to the LPMS is mainly located in the Auxiliary electrical equipment room and consists of the addition of an electronics package. The basic function of the LPMS is unchanged. The operation or failure of the LPMS can not lead to an accident that is unanalyzed. The LPMS is not explicitly or implicitly assumed to function before, during or after accidents. Therefore, the consequences of the accident are unchanged.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the LPMS modification is an enhancement to the current system with no function change related to Technical Specifications and does not affect any parameters upon which Technical Specifications are based.

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6H-00-0061
Various Procedures Associated with DCP 9900334

DESCRIPTION:

Operating procedures are changed to reflect copper ion generator skids 0CW13SA and 0CW13SB and their associated equipment installed at the river screen house. The function of the system is to add copper to the Circulating Water Make-Up System for zebra mussel control.

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 low concentration of copper, the existing Technical Specification surveillance criteria and the secondary chemistry control program identify that the probability of a steam generator tube rupture is not increased.

The affect of the piping/skid/support loads to the Seismic 1 river screen house structure has been analyzed and found to be acceptable with no new failure modes. The revisions to these affected procedures do not change or alter any previously identified conditions.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the only possibility of an equipment malfunction of a different type would be material degradation due to copper and aluminum concentrations, which are not anticipated. The operation of the copper ion generators is the responsibility of the Chemistry Department and not affected by the implementation of these procedure revisions. Therefore, a new possibility for an equipment malfunction different than previously evaluated is not created as a result of these procedure changes.
3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the Copper Ion Generator modification is an enhancement to the current system as a preventive measure to stop infestation before zebra mussel colonies are formed in the system. Therefore, the margin of safety based on these changes is not reduced.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0154

Review of potential debris in the SI system of Byron Units 1 & 2

DESCRIPTION:

This evaluation addresses operation of Byron Unit 1 & 2 following the discovery of potential drilling debris in the Safety Injection (SI) 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 drilling debris will not adversely affect the primary side components relative to their structural integrity and their safety functions. The drilling debris will not adversely affect the functioning of any ECCS equipment. The drilling debris will not adversely affect the nuclear fuel from a flow blockage, DNB or PCT standpoint. The potential for drilling debris to adversely affect Rod Control Cluster Assembly (RCCA) operation is negligible. Moreover, the drilling debris does not act as the initiator for any accidents previously evaluated in the UFSAR.

The drilling debris does not impact the accident analyses or plant accident scenarios. The response of the plant safety systems, when subjected to accident conditions, will not be affected so as to prevent the mitigation of accidents previously evaluated in the UFSAR. Also, there is no increase in assumed fuel damage nor any increase in offsite doses due to drilling debris. Furthermore, analyses have shown that the reactor can be safely shut down with the highest worth rod stuck in the fully withdrawn position. The drilling debris will not affect safety system performance and therefore will not increase the consequences of an accident previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the possible migration of the drilling debris in the RCS piping has been evaluated. None of the scenarios result in an increase in the probability of an accident, including any accidents that may be different than those already evaluated in the UFSAR. No new single failures have been identified.

The impact of the drilling debris on the primary side components in the cold leg piping is not expected to affect pressure boundary integrity. The presence of the drilling debris does not cause the initiation of any accident nor create any new credible limiting single failure beyond those already evaluated. The condition does not result in any event previously deemed incredible made credible. In addition, the safety functions of safety related systems and components, which are related to accident mitigation, have not been altered. As such, the drilling debris does not create the possibility of an equipment malfunction different than any evaluated in the UFSAR.

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6H-00-0154

Review of potential debris in the SI system of Byron Units 1 & 2

(Cont'd.)

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the margin of safety with respect to plant safety is provided, in part, by the safety factors included in the ASME Code and by the conservatisms inherent in the accident analysis acceptance criteria. The margin of safety is not reduced, since the drilling debris does not create any condition more limiting than that assumed in the plant safety analyses.

Byron Station
10 CFR 50.59 Report
For Calendar Year 2000

6H-00-0184

MRS-SSP-1111-CAE-LTA, Rev. 0; Byron Fuel Inspection Field Procedure – Field Change 02
MRS-GEN-1052, Rev. 0; Automated Fuel Rod Crud Scraping System Procedure

DESCRIPTION:

Perform activities associated with the Byron Lead Test Assembly (LTA) inspection project. The field change provides the steps and sequence when to perform the automated fuel rod crud scraping during the LTA project. The procedure provides the set up and instructions for these inspections.

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 current fuel handling accident analysis bounds any event that could arise during the proposed activity. The equipment important to safety for the fuel handling accident outside containment is the Fuel Handling Building exhaust filtration system. Since the filters and associated equipment are not affected, the consequences evaluated in the SAR for fuel handling accident will not increase due to malfunction of equipment important to safety.
2. The possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report is not created because the proposed activity does not alter any operational or postulated accident condition loadings or change any postulated accident initiating or mitigating conditions. The utilization of these procedures does not create any new limiting single failures.

The possibility of fuel failures resulting from equipment catastrophic failures or misuse are not new modes of failure and are bound under the current safety analysis assumptions.

All original design criteria continue to be met such that the ability of any safety related equipment to perform their intended safety function is not affected.

3. The margin of safety, as defined in the Bases for any Technical Specification, is not reduced because the inspection activities of the LTAs or related assemblies do not affect any parameters upon which Technical Specifications are based.