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U.S. Nuclear Regulatory Commission  
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Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION**  
**10CFR50.59 SUMMARY REPORT – 1998/2001**  
**PLA-5370**

**Docket Nos. 50-387**  
**and 50-388**

Pursuant to 10CFR50.59(d)(2), enclosed is a summary report of the safety evaluations approved during the period from October 30, 1998 to April 1, 2001 for both Susquehanna Units 1 and 2.

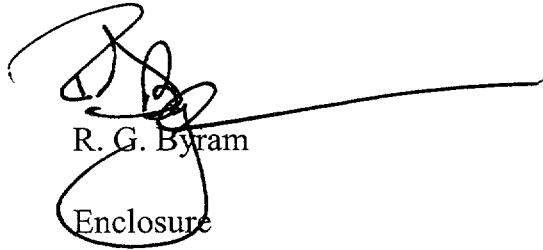
The format of the report is as follows:

<b><i>SER No.:</i></b>	Unique number for each safety evaluation.
<b><i>Cross Reference:</i></b>	Reference to the document for which the safety evaluation was prepared.
<b><i>Description of Change:</i></b>	A brief description of the change made to procedures, equipment or tests.
<b><i>Summary:</i></b>	A summary of PPL Susquehanna LLC's review of the requirements for determining an unreviewed safety question as defined beginning in 10CFR50.59(c)(2).

IE47

If you have any questions, please contact Mr. Terry L. Harpster at (610) 774-7504.

Sincerely,



R. G. Byram

Enclosure

Copy: NRC Region I

Mr. S. L. Hansell, NRC Sr. Resident Inspector

Mr. R. G. Schaaf, NRC - Project Manager

**SER NO: 01-001**

**CROSS REFERENCE: NL-98-105, Unit 2**

**DESCRIPTION OF CHANGE:** This modification lowers the setpoints for pressure switches PSL-20183A1 and PSL-20183B1 from 109/104 psig to 102/92 psig for the Unit 2 stator cooling system to preserve auto-start of the reserve pump.

**SUMMARY:**

- I. No. the probability or consequences of this action do not affect the accident evaluations as described in the SAR, specifically the FSAR section 15.2 (Increase in Reactor Pressure). In this accident analysis the Turbine Trips are evaluated as moderate frequency and turbine trips as a by-product of other transients (loss of Stator Cooling is assumed to be an example) are included in defining the frequency. The turbine trip frequency associated with the loss of Stator Cooling, although not specifically evaluated, will not be changed due to the proposed action. Since the reserve pump will maintain their low pressure auto-start capabilities, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR will not be increased.
- II. No. The Turbine Trip frequency is evaluated as part of the Reactor High Pressure accident analysis. This action maintains the same station components and interaction of these components to the Turbine-Generator. Since the reserve pump logic to auto-start on low pressure will be maintained this action does not create a possibility for an accident or malfunction of a different type than previously evaluated in the SAR.
- III. No. The stator cooling system is not the basis for any Technical Specification, nor is any change required to any Technical Specification due to this action.

**SER NO: 01-002**

**CROSS REFERENCE: DCP 96-9118/96-9119, Units 1, 2.**

**DESCRIPTION OF CHANGE:**

This modification eliminates the automatic and remote operated drain functions of the Reactor Building Zone I & II cooling coils and the remote drain function of the Zone III cooling coils in order to reduce nuisance alarms.

**SUMMARY:**

- I. No. The elimination of the automatic and manual drain functions of the Reactor Building Unit 1 Zone I cooling coils and the Unit 2 Zone II cooling coils and elimination of the manual drain functions of the Reactor Building Unit 1 Zone III cooling, coils and Unit 2 Zone III cooling coils does not-affect any of-the postulated initiating events identified in current licensing documents. The installation of the new manual ball valves does not affect the Reactor Building Chilled Water System logic or operation. The function of the Reactor Building HVAC and Chilled Water Systems will remain unchanged. The performance of these modifications does not reduce the barriers (physical or administrative) between a radioactive system and a release point and does not create a new release path. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. The function of the Reactor Building Chilled Water System is to provide cooling water to various components located in the Reactor and Radwaste Buildings. The Reactor Building HVAC System provides a means of maintaining and controlling the release of airborne radioactivity during normal operation or following a postulated fuel handling accident. Since these basic functions will not change as a result of these modifications, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action eliminates the automatic and manual drain functions of the Reactor Building Unit 1 Zone I cooling coils and the Unit 2 Zone II cooling coils and eliminates the manual drain functions of the Reactor Building Unit 1 Zone III cooling coils and Unit 2 Zone III cooling coils. This proposed action is not governed by any Unit 1/Unit 2 Technical Specifications or Unit 1/Unit 2 Technical Requirements. In addition, it does not create a new condition which should be governed by additional Technical Specification requirements. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-003**

**CROSS REFERENCE: DCP 98-9019, Unit 2**

**DESCRIPTION OF CHANGE:**

The modification installs keylock switches and indicator lights in the Main Turbine Electro-Hydraulic Control (EHC) panel 2C663. This modification opens the trip circuit during routine monthly testing of the power load unbalance/backup overspeed trip logic and prevents inadvertent turbine trips. It also provides light indication to the plant operator so the operational mode during and after testing is clearly evident.

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. The proposed modification maintains the Main Turbine System design basis by eliminating inadvertent trips. The proposed action maintains the commitment to provide meaningful Main Turbine protection to ensure safe operation of the unit. There is no change in the probability of an increase in a Main Turbine event, since the modification involves no changes to equipment or logic in which failures could initiate the transients discussed in Sections 15.2 and 15.3 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. Since this basic function will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. Changing respective test control circuits does not have any adverse effect on the operability and surveillance requirements as defined in the basis for any existing Technical Specification applicable to the Main Turbine System or the Electric Power System. This occurs because the proposed action does not degrade, in any way, the Main Turbine Control System scheme, performance, or indication logic. In addition, no adverse impact to the Electric Power System occurs. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-004**

**CROSS REFERENCE: DCP 96-9040, Rev. 2, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification will relocate the Reactor Core Isolation Cooling (RCIC) steam trap (associated piping and valves) so that it will operate to control steam line drain fluid at an acceptable level and also replace the steam piping drain level switch (LSH-E51-2NO10) with one of an advanced design. This level switch functions to open and close the steam trap bypass valve (F054) which also is being replaced.

**SUMMARY:**

- I. No. Based upon a review of the FSAR (Sections 3.5.1, 5.4.6, 3.9.3, 15, 15A), the SSES Fire Protection Review Report (FPRR, Sections 3. 1), and FPRR Deviation Request #6, the probability of applicable accidents is not increased since neither the piping, or instrumentation associated with the pipe break initiating event or a compartment fire are affected. The existing interfaces for the RCIC steam drain system are not adversely affected since there is no change in function. There are two new interfaces created by this modification, the dependency of the RCIC Level switch on a Class I E 120V AC system and the interface between a Class I E power supply (I 20V Instrument AQ and a non-Class I E circuit (alarm circuit). Neither of these interfaces adversely affect safety related components since the F054 valve does not perform a safety function and electrical separation is provided for. Based upon a review of the FSAR (Section 12.2) and the Offsite Dose Calculation Manual (ODCM), this modification does not reduce the barriers between a radioactive system and release point and does not create the potential for a release path to the environment. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The possible failure modes of the modified and newly added RCIC components and piping (including the review of the three existing interfaces & two new interfaces) were evaluated for new impacts upon plant equipment important to safety and previously evaluated initiating events (evaluated in the SAR). None were identified. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the RCIC system design parameters, the only one affected is the setpoint at which the level switch will function to open the F054. Although this setpoint does not serve as the basis for any margin of safety as presented in the SSES Technical Specifications (or Technical Requirements Manual), it does ensure that the design requirement, that the RCIC turbine steam supply line be maintained in a hot pressurized condition during system standby operation with condensation drained, is satisfied. This setpoint has been calculated to ensure that during the hot-standby conditions, in the event of degraded steam trap operation, the F054 will function in a time frame as to prevent the accumulation of condensate to the point where it may enter the RCIC turbine upon system initiation. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-005**

**CROSS REFERENCE: DCP 98-3021 C/D, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification replaces the actuator motor for valves HV251 F016A/B. The existing motor for each valve is rated at 25 ft-lb (1.6 hp) and the replacement motor is rated at 40 ft-lb (2.6 hp). No modification of the cabling to the valves will be required since the cabling is adequately sized for the larger motor. The existing thermal overloads will be replaced to accommodate the larger motor, and the HFB-M magnetic circuit breakers will be reset.

**SUMMARY:**

- I. No. Valves HV-251FO16A/B are the Drywell Spray Header Containment Isolation valves. The modification meets all applicable design, material and construction requirements and does not change the performance or operation of the Residual Heat Removal System. The valve's active safety function is to open during accident conditions, providing a flow of suppression pool water to the drywell spray header, and to close following a Containment isolation signal. The valves operate (close) to limit the consequences of accidents that initiate a Containment isolation signal. The replacement of the actuator motor will not increase the consequences of any accident requiring Containment isolation.

Since the valves serve a mitigating function following an accident, and the modification provides greater assurance of valve closure, it is concluded that the modification does not increase the consequences of an accident previously evaluated in the SAR. FSAR Sections 3.9.3.2b.2, 5.4.7, 6.2.4, and Chapter 15 have been reviewed in making this determination.

- II. No. The modification to replace the actuator motor, thermal overload heaters, and reset the magnetic only breakers will not create any new accidents or malfunctions not previously evaluated in the SAR. The failure mode of the valve (fail-as is) will not be altered by the replacement of the motor. The active safety function of the valve, which is to close following an isolation signal, is not involved with any credible accident initiators. The functional performance of the valve will not be adversely impacted, since all design requirements have been satisfied. The new thermal overload heaters are identical in design and manufacture to those being replaced except for their larger capacity. Therefore, the possibility of a different type of accident or malfunction will not be created. FSAR Sections 3.9.3.2b.2, 5.4.7, 6.2.1.1.4, 6.2.4, 8.3.1, and Chapter 15 have been reviewed in making this determination.
- III. No. The modification will not change the margin of safety established to prevent the release of radioactive materials from containment. The integrity of the valve pressure boundary and the valve seat leakage rate will not be affected by the replacement motor. The modification will not alter any of the valve actuation circuitry. The valve stroke time will remain within the specified time required to maintain valve operability. The new breaker magnetic trip setting specified for the modification is in accordance with current design standards and will not alter the ability to perform periodic testing of representative

samples to confirm breaker reliability. Since the modification will not adversely impact Containment isolation capability and overcurrent protection of Containment penetrations, the margin of safety as defined in the Technical Specification bases will not be reduced. The Technical Specifications (ITS) Bases Sections B3.6.1.3, "Primary Containment Isolation Valves", B3.6.1.1, "Primary Containment", B3.3.6.1, "Primary Containment Isolation Instrumentation", and Technical Requirements Manual section 3.8.2.1, "MOV Thermal Overload Protection - Continuous" were reviewed in making this determination.

**SER NO: 01-006**

**CROSS REFERENCE: NL-98-096, Unit 1, 2**

**DESCRIPTION OF CHANGE:** This safety evaluation discusses the impact of coating the interior bottom surfaces of Diesel Fuel Oil Storage Tanks OT527A, B, & D with a different material than described in the FSAR. This evaluation also addresses a proposed change to FSAR Section 9.5.4 which deletes the trade name (Carbomastic 14) of the specific material used to coat the interior bottom of the fuel oil storage tanks. The fuel oil storage tanks are common to both Unit 1 and Unit 2.

**SUMMARY:**

- I. No. The fuel system provides onsite storage and delivery of fuel oil to the diesel generators for at least seven days of post-accident operation. The diesel generators provide a source of standby power for Engineered Safety Features, in the FSAR Chapter 15 accident sequences that include a loss of offsite power.

The specific design and operating parameter addressed in this safety evaluation is protection of the interior bottom of the fuel oil storage tanks from corrosion due to water accumulation. Corrosion protection of the fuel oil storage tanks is required because of the commitment to ANSI Standard N195 (FSAR Section 9.5.4.1 and NRC Safety Evaluation Report, Section 9.6.3.2). During construction, the purchase specification translated this general requirement into more specific terms by specifying that the tank interior bottom be coated with Carbomastic-14. Subsequently, since the specific coating material was known, the use of Carbomastic-14 was incorporated into the FSAR. Clearly, the intent of the statement in the FSAR was to demonstrate that adequate corrosion protection was provided, not to specify what material should be used.

Coating degradation was discovered during the initial ten year tank cleanings. The coating was replaced with a material different than that specified in the FSAR. The processes used to specify, procure and install the new material were appropriate for the safety significance of the work being performed. In addition, the diesel generator and fuel oil systems are subjected to surveillances to ensure operability. This combination of engineering controls and surveillances provides reasonable assurance that no common cause failures will result from the change in coating materials. Since corrosion protection has been maintained to date, and adequate controls exist for the future, the past change in coating material and the deletion of the coating trade name from the FSAR does not increase the probability of a malfunction different than that previously evaluated in the SAR.

- II. No. The proposed action does not change the operation of the diesel generators, or any of the design assumptions. Single failure of one diesel generator and unavailability of its associated safety related load group is already assumed in the design basis of the plant (FSAR Section 8.3.1.4). One possible cause of failure of a diesel generator is corrosion of the fuel oil storage tank. This failure mode was recognized in the original design of the plant, and the requirement for corrosion protection of the tanks was included in the design basis. As indicated above, adequate corrosion protection has been maintained to

date, and will be in the future. Therefore, the proposed action does not introduce a malfunction of a different type.

- III. No. Tech Spec 3.8.3, 'Diesel Fuel Oil, Lube Oil, and Starting Air', is the only technical specification directly applicable to the fuel oil storage system. LCO 3.8.3 states, "The stored diesel fuel oil, lube oil, and starting air subsystems shall be within limits for each required diesel generator (DG)." The 'limits' in LCO 3.8.3 applicable to this discussion are fuel oil level and fuel oil properties. The Diesel Fuel Oil Testing Program establishes the critical fuel oil properties to be monitored to ensure diesel generator operability. The proposed action does not change the required minimum fuel oil level or the fuel oil properties being monitored in accordance with the Diesel Fuel Oil Testing Program. Therefore, the proposed action does not reduce the margin of safety defined in the Tech Spec bases.

**SER NO: 01-007**

**CROSS REFERENCE: NL-98-012, Unit 1, 2, C**

**DESCRIPTION OF CHANGE:**

This safety evaluation addresses discrepancies related to the Standby Liquid Control (SLC) System as described in Section 9.3.5 and Tables 9.3-11 of the FSAR.

**SUMMARY:**

- I. No. The proposed activity does not alter the function or design basis of the SLC System, nor degrade the ability of the SLC System to perform its designed function. The proposed activity does not alter any assumptions or conditions previously considered in evaluating the radiological consequences of an accident or equipment malfunction nor adversely affect any system, structure or component that is required to mitigate the consequences of an accident or equipment malfunction. Therefore, the proposed activity does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The proposed activity does not involve a physical change to the plant nor alter the function or design basis of the SLC System. The proposed activity does not create any new system interactions or introduce a different type of failure than previously credible. Therefore, the proposed activity does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed activity does not alter the function or design basis of the SLC System nor degrade the ability of the SLC System to perform its designed function. The proposed activity does not reduce the degree of availability or capability of the SLC System that is considered in the basis of Technical Specification Section 3.1.7. Therefore, the proposed activity does not reduce the margin of safety as defined in the bases for any Technical Specification.

**SER NO: 01-008**

**CROSS REFERENCE: NL-98-010, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

The purpose of this safety evaluation is to evaluate changes to the FSAR. The changes include:

1. Changes in the instrument air dryer desiccant and preventive maintenance activity described in Section 9.3.1.1.4.
2. Corrections and clarifications to Table 9.3-2 entries that have been wrong since original issuance.
3. Add the reactor building to the 'location' column of Table 3.2-1 - for compressed air and containment instrument gas(CIG) systems.
4. Event 8, Loss of Instrument Air will be updated to reflect the immediate operator action to manually scram the reactor if header pressure gets below 65 psig.

**SUMMARY:**

- I. No. The identified changes to the Instrument Air System have been evaluated and do not adversely affect the safety functions of any components or systems and do not impact any existing plant procedures or training. The changes to system design, operation and maintenance have been to improve reliability and performance. The identified dampers that are being deleted were never part of SSES design. The likelihood of a plant transient caused by the loss of the Instrument Air System has been reduced based on the design changes made. The other technical changes are minor in nature to correct FSAR discrepancies that existed since its original issuance. Therefore, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR is not increased.
- II. No. The Instrument Air System has no safety-related function. Loss of the Instrument Air System is defined as Event 8, Loss of Instrument Air in Chapter 15.A of the FSAR. This event will be updated to reflect the immediate operator action to manually scram the reactor if header pressure gets below 65 psig. This immediate operator action was established to prevent a partial scram due to the Scram Discharge Volume(SDV) becoming partially filled on closure of the SDV vent and drain valves on loss of instrument air. The changes to the design, operation and maintenance of the Instrument Air System do not create a possibility for an accident or malfunction of a different type than already described in the SAR and do not bring about a malfunction of a different type than evaluated in the SAR.
- III. No. The Instrument Air System does not adversely affect the safety functions of any components or systems as defined in the basis for any Technical Specification. Therefore, the proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-009**

**CROSS REFERENCE: OP-068-003, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

Spent Resin Transfer Pump OP320 Discharge Rupture Disc Failure PSH-06275A1 is not functional and falsely outputting a rupture disc failure condition without actual failure. The purpose of the switch is to trip the pump in the event of a disc failure. The purpose of this evaluation is to allow operating Spent Resin Transfer Pump OP320 with the switch not functional, until repair of the switch is complete, by eliminating the disc failure signal. Operation will be allowed for decant only, not resin transfer to the mobile area.

**SUMMARY:**

- I. No. The FSAR chapter 15 analysis for radwaste tank rupture and subsequent release involves the tank with the highest level of radioactivity in the radwaste building, the Reactor water Cleanup (RWCU) phase separators. Failure of the spent resin tank or associated piping as a result of this change is therefore bounded by the existing analysis. This change can not increase the probability of occurrence or the consequences of rupture of the RWCU phase separators or associated piping.
- II. No. Operating the spent resin pump without Spent Resin Transfer Pump OP320 Discharge Rupture Disc Failure PSH06275A 1 functional could result in failure of the disc without pump trip. Disc failure without pump trip is unlikely because redundant Spent Resin Transfer Pump OP320 Discharge Rupture Disc Failure PSH-06275A2 will trip the pump on high pressure downstream of a burst disc. In addition, procedure control will require an operator stationed at the drain from the rupture disc during decant in this fashion. The pump can be stopped manually in this way on indication of a disc failure. The system is designed for a disc rupture and discharge of material to the provided radwaste drain. Failure of the pump to trip on disc rupture could occur now without the proposed change. For these reasons, the proposed change does not create a possibility for an accident or malfunction of a different type than any evaluated previously.
- III. No. There are no Technical Specifications that involve the solid radwaste system. Technical Specifications relating to effluent release and monitoring are not affected by the proposed change. The proposed change to the spent resin system does not involve a change to an effluent monitoring system or effluent release rates. For these reasons, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-010**

**CROSS REFERENCE: DCP 97-9069, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification repositions the upper limit switches of the nine 16" and 26" Extraction Steam Bleeder Trip Valves (BTVs) and remounts them in such a way that the position indication is taken from the vertical movement of the air cylinder piston rod rather than from the movement of the disc arm attached to the disc shaft.

**SUMMARY:**

- I. No. Based upon a review of the FSAR (Sections 10.2, 10.4, 15.2.3, Nuclear Question 423.20), Fire Protection Review Report and SSES Safety Evaluation Report, no accidents analyzed will have their probability increased as a result of this modification because the function of the BTVs are not adversely affected. This modification meets all design requirements for these existing systems, there is no adverse effect to the function or operation of these systems or components, nor do they create any system or component interface. The proposed activity will not degrade any radiological release path. Therefore, the proposed activity does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR.
- II. No. This modification does not add to, eliminate, or alter the design basis or design basis function of the Extraction Steam or Turbine Generator systems as described in the FSAR Section 10.2 and 10.4, nor does it adversely impact any component served by Extraction Steam or Turbine Generator systems. The enhancement of the position indication for these valves will not affect their function. Turbine overspeed protection due to flashing steam flowing back into the turbine (in the event of a turbine trip) will still be prevented. The prevention of water induction into the turbine (in the event of heater tube failure) will also be prevented and the valves will still close on flow reversal and will open and remain open to provide their required steam flow to the Feedwater Pump Turbines as before. Therefore, the proposed activity does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the system parameters potentially affected by this modification, none serve as the basis for any margin of safety as presented in the Technical Specifications or their bases and no system or component important to safety is adversely affected by this modification. Therefore, the proposed activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-011**

**CROSS REFERENCE: DCP 96-9105, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification disconnects the bonnet vent piping between existing steam seal pressure relief valves PSV20706A/B, PSV-20746, & PSV-20725A-F and Condenser 2E108A and allows the bonnets to be vented to the Turbine Building atmosphere. This will eliminate unnecessary valve actuations, and conforms with design requirements.

**SUMMARY:**

- I. No. FSAR Chapter 10.4.3 - "Steam Seal System", 10.4.1 - "Main Condenser", and Chapter 15 - "Accident Analysis" have been reviewed. There are no engineered safety features or accident scenarios described in the SAR that would be impacted by the actions taken per this modification. The actions taken by this modification will have no adverse implications on the operation or function of the Steam Seal System as described in the FSAR. Based on the above, the actions taken in this modification will not increase the probability of occurrence of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. This modification does not adversely affect any safety-related systems, nor does it change the design basis for any system or structure. All alterations proposed by this modification will be designed and installed in accordance with all manufacturer's instructions and the ANSI B31.1 Code to ensure their design and construction integrity. Therefore, this modification will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the Unit 2 Technical Specifications, Tech. Spec. Basis, and Technical Requirements Manual, no parameters, which serve as the basis for any Technical Specification, are affected by this modification. Therefore, the actions taken by this modification will not reduce any margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-012**

**CROSS REFERENCE: DCP 97-9075/6, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

For the Unit 1/2 Core Spray/Residual Heat Removal (RHR)/Low Pressure Coolant Injection (LPCI) Reactor Low Pressure Permissive pressure switches, DCP 97-9075/6 replaces PS-B21-1/2NO21A & C with Barton pressure indicating switches, relabels them as "PIS-B21-1/2NO21A & C", provides a Tech Specs change with new Upper and Lower Allowable Values, and changes the process setpoint for switches PIS-B21-1/2NO21A – D.

**SUMMARY:**

- I. No. This modification does not change the required logic or functions of the Core Spray and LPCI systems. The new allowable values were selected to lie within the Upper and Lower Analytical Limits. The replacement Barton pressure indicating switches were chosen for their improved accuracy and lower drift and the fact that they match the existing pressure indicating switches PIS-B21-1/2NO21B&D. Therefore, the change in allowable values and setpoint and the replacement of the pressure switches do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The replacement Barton pressure indicating switches are seismically and environmentally qualified and functionally equivalent to the Barksdale pressure switches being replaced. The replacement Bartons and the new setpoint and allowable values will not change any existing or introduce any new logic functions nor will they change any plant systems or structures. Therefore, the new allowable values, setpoint, and pressure indicating switches do not create the possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The replacement Barton pressure indicating switches do not change any functions or logic or eliminate diversity requirements but provide improved performance through reduced inaccuracy and drift. The new setpoint and allowable values maintain the margin requirements for the Core Spray and LPCI injection functions as defined in Functions 1.c, 1.d, 2.c, and 2.d of Table 3.3.5.1-1 of the Technical Specifications Bases. Therefore, the new pressure indicating switches, setpoint, and allowable values do not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-013**

**CROSS REFERENCE: DCP 97-9080/97-9081, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

The installed Reactor Recirculation pump motor watt transducer is a 5% tolerance instrument. Recently, the watt transducer calibration instrumentation has been upgraded to an accuracy of 1%. The last two calibrations have found the transducer drift to be greater than the 5% range in the non-conservative direction. The proposed action replaces the existing self powered Reactor Recirculation pump watt transducers with units that have a 2% accuracy rating. It also installs new fusing and test switches to maintain design requirements and facilitate testing,

**SUMMARY:**

- I. No. The core and fuel design basis for steady state operation as delineated in FSAR Section 4.4.1.3, have been defined to provide margin between the steady-state operating conditions and any fuel damage condition to accommodate uncertainties and to assure that that no fuel damage results even during the worst anticipated transient condition at any time in life. In reviewing reactivity safety limits included in FSAR Section 15.0.3.3, Core and System Performance, the proposed action has no direct effect on reactivity. The output from the recirculation pump watt transducer only provides a heat input for calculations that track the condition of the fuel. There is no change in the probability of an increase in a fuel failure since the modification involves no changes to equipment or logic in which failures could initiate the transients discussed in Sections 4.4 and 15.0.3.3 of the FSAR. There are no new safety concerns or conditions not already evaluated or discussed in Sections 4, 6, and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. Since this basic function will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. The available watt transducer at the time of plant construction was limited by the existing technology to a 5% accuracy rating. By improving the accuracy of this device and by improving the accuracy of a heat input to the core heat balance calculation, the existing safety margin cannot be reduced but only enhances its true calculated value.

The proposed action offers improvements that reduce the non-conservative drift to the core thermal calculation. This in effect maintains the licensing commitment to provide core stability during all operating modes/conditions and ensures the health and safety of the public. Based on the above, the proposed action does not create any new failure modes and maintains the margin of safety as delineated in the Technical Specifications above.

**SER NO: 01-014**

**CROSS REFERENCE: DCP 96-3001/2A, C & D, Unit 1,2**

**DESCRIPTION OF CHANGE:** The Hydrogen Water Chemistry System (HWCS) modifications install the hydrogen and oxygen supply pipes, the control panels, the Offgas recombiner hydrogen and oxygen analyzer panels, hydrogen area monitors and reactor recirculation sample line hydrogen monitors, and removes the Offgas Hi-Hi hydrogen trip.

**SUMMARY:**

- I. No. FSAR Section 15.7.1.1.1.1 was reviewed for the deletion of the Hi-Hi hydrogen trip on the Offgas Recombiner system. Deletion of the Hi-Hi hydrogen trip could increase the probability of occurrence of a hydrogen explosion in the Offgas system, which is a previously evaluated accident. A request to change the design basis of the Offgas System was submitted to the USNRC in PLA-4822 and PLA-4840. The USNRC's concurrence was requested to consider the Offgas System detonation resistant. USNRC concurrence is necessary prior to removing the Offgas Recombiner Hi-Hi hydrogen trip. PP&L has received authorization by the USNRC to change the Offgas System design basis to a detonation resistant design. The authorization is documented in Amendment No. 179 to Facility Operating License No. NPF-14, and Amendment No. 152 to Facility Operating License No. NPF-22.

The modifications do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety. The HWC injection equipment being installed at the SSES is not classified as safety-related and does not have any direct interface with any safety-related structure, system, or component. The injection of hydrogen into the Feedwater System and Oxygen into the Offgas System does not change an automatic operation of a safety-related system to a manual operation; does not violate reactor water conductivity limits; does not change the performance of any support system; does not change testing intervals or requirements; does not change the loads on safety-related items; and does not change equipment protection features. Any increases in normal operational radiation exposures to safety-related equipment resulting from N-16 has been evaluated on a device- by-device basis and appropriate actions have been taken to assure the proper functions of such devices during both normal operation and under accident conditions.

FSAR Sections reviewed to develop this basis include Sections 3.1, 3.8, 3.9, 3.11, 6.3, 9.5.1, 11.3.2, 12 and Chapter 15 as well as SSES responses to NRC Questions No. 121, 281, 312, 313, 321, and 331.

- II. No. The injection of hydrogen to the reactor coolant does not adversely affect the reactor operating conditions. In fact, the addition of hydrogen will reduce the potential for corrosion of stainless steel and nickel based alloys, and thus reduce the probability of equipment or component failure or malfunction due to corrosion. The potential for increased erosion/corrosion of carbon steel piping as a result of reduced oxygen concentrations under HWC has been evaluated and will be monitored by the existing erosion/corrosion program. The modification to allow HWC operation does not create a new fission product release path, does not result in a new barrier failure mode, and does

not create a new sequence of events that might result in fuel cladding failures. FSAR Sections reviewed to develop this basis include Sections 3.1, 3.11, 6.3, 9.5.1, 11.3.2 and Chapter 15 as well as SSES responses to NRC Questions No. 121, 281, 312, 313, 321, and 331. The DCPs do not create a possibility of an action or malfunction of a different type than any evaluated previously in the SAR.

- III. No. This conclusion is based upon a review of the Technical Specification Basis B 3.7.5. Main Condenser Offgas. This basis addresses the need to restrict the gross radioactivity rate of noble gases from the main condenser to assure that the total body exposure to an individual at the exclusion area boundary will not exceed a small fraction of the limits of 10 CFR Part 100. The HWC program at the SSES does not change the content of the noble gases from the main condenser. Therefore, the proposed action does not reduce margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-015**

**CROSS REFERENCE: DCP 97-9021/97-9022, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

Replace the existing Unit One and Unit Two offgas pretreatment subtrain flow sensors, FE-17125A&B and FE-27125A&B with instruments capable of accurately measuring low offgas flow.

**SUMMARY:**

- I. No. This change does not increase the probability of a failure of the offgas system because there are no changes that affect the functional operation of offgas to process noncondensable gases from the main condenser effluent. Furthermore, physical integrity of the system boundary is maintained by assuring that the new pipe section and instrument will have structural strength and detonation resistance equal to the existing line. The new pipe section will be installed in accordance with the requirements of ANSI B3 1. 1. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR, -(Reference FSAR Sections 11.3.2 and 15.7. 1).
- II. No. The modification does not create a new failure mode, including common mode failure. The modification does not create a new or potentially limiting operating transient. It does not create a new radioactive waste component or system failure, nor the possibility of a radiological release above applicable fraction of 10CFR100 or 10CFR20 limits. It does not create a new component or system interaction and is not associated with procedures or testing changes that would result in component/system performance outside the design range. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.. (Reference FSAR Sections 11.3.2 and 15.7.1).
- III. No. The gaseous waste systems are designed to limit offsite doses from routine station releases to doses significantly less than the limits specified in 10CFR20, and to operate within the dose objectives established in 10CFR50, Appendix I Replacement of the offgas flow instrument does not change the content of the noble gases from the main condenser. The new instrument improves the ability to more accurately calculate the release rate and to more accurately monitor small changes in the offgas flow rate. Therefore, the proposed action does not reduce margin of safety as defined in basis for any Technical Specification. (Reference Technical Specification Basis B 3.7.5)



**SER NO: 01-016**

**CROSS REFERENCE: NL-98-109, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation provides justification for allowing Control Structure (CS) HVAC fan plenum access panels to be opened to perform maintenance. When the plenum access panel must be removed for maintenance we will use administratively controlled manual actions will be used to restore system integrity in the event of a Control Room Emergency Outside Air Supply System (CREOASS) initiation. Following maintenance activities or in case of a CREOASS initiation, personnel will evacuate the fan plenum and reinstall the plenum access panel to assure CREOASS operability.

**SUMMARY:**

- I. No. Implementation of the proposed action, which allows maintenance to be performed on CS HVAC fans, does not directly or indirectly reduce the capability of any safety systems to perform their design basis functions to mitigate the effects of any accident previously evaluated in the SAR. The implementation of the proposed action does not change, degrade or prevent the response, of any existing plant system required to mitigate the radiological consequences of any accident previously evaluated. Therefore, the proposed addition does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed action, to allow opening fan plenum access panels to permit CS HVAC fan maintenance, does not change the operation or function of the Control Structure HVAC system. No new failure modes are introduced that would create the possibility of a new accident. The safety function of CREOASS is to provide filtered outside air to the Control Structure and to maintain the Control Structure at a positive 1/8"WG pressure post accident. CREOASS has a post accident function, but is not an accident initiator. Therefore, this action does not create the possibility of an accident of a different type than any previously postulated in the SAR.
- III. No. The proposed action to allow maintenance to be performed on CS HVAC fans will have no adverse effect on the Filtration mode of CREOASS. In addition, this action will not increase post DBA Control Room Operator Dose. Therefore, implementation of this action does not reduce the margin of safety implied in the basis for TS 3.7.3 or any other Technical Specification.

**SER NO: 01-017**

**CROSS REFERENCE: DCP 98-3013B, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Area R-2B and R-2A-2B.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 2-4A-N, 2-4B or 2-4A-W. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 2-4A-N, 2-4B or 2-4A-W.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual (Section 3.7.3.7) is not reduced by the proposed action.

**SER NO: 01-018**

**CROSS REFERENCE: DCP 98-9011, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification removes the Unit 2 system, which provided temporary instrumentation to monitor the exterior surface differential temperature across the feedwater nozzle safe ends, in order to determine bypass leakage flow.

**SUMMARY:**

- I. No. Chapters 6 and 15 of the FSAR were reviewed to determine whether any accidents are applicable to the equipment affected by this modification. A previous modification installed the temporary system that consisted of sensors, cooling and a multiplexer. The temporary system was tied to the Transient Monitoring System. The Transient Monitoring System is described in FSAR Section 7.7.1.9. Removing this system would not increase the probability of an accident with the Feedwater System since it does not directly interface with it. FSAR Section 3.9.5.1.8, Section 6.2.3.2.3. 1, and Section 7.7.2.4 were reviewed yielding no applicability. There are no engineered safety features or accident scenarios that would be impacted by this modification. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Removal of the non-safety-related temperature detectors and their associated cables, mounting hardware and flex conduit do not create a safety impact hazard. The original installation of the feedwater Nozzle Surveillance Instrumentation System did not interface directly with any safety or power generation system. It interfaced indirectly with the feedwater system by virtue of the temperature detector mounting. Removal of this system will not alter the function or operation of any safety-related or power generation system or structure. Therefore, the proposed action does not create the possibility for an accident or malfunction of a different type than any evaluated in the SAR
- III. No. This modification simply removes a temporary monitoring system that is inoperable and has no impact on Technical Specifications. A passive monitoring system is being removed that has no interface with the operation of the feedwater system or any safety-related system. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-019**

**CROSS REFERENCE: NL-98-108, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This safety evaluation supports adding the following statement to the TS Bases Section B3.3.3.1:

Based on analysis performed by Nuclear Engineering, H202 Analyzers can be considered OPERABLE for accident monitoring (Tech Spec 3.3.3.1) for up to 100 days with their heat tracing INOPERABLE.

**SUMMARY:**

- I. No. The proposed clarification on H202 Analyzer Operability does not directly or indirectly reduce the capability of any safety systems to perform their design basis functions to mitigate the effects of any accident previously evaluated in the SAR. This addition does not change, degrade or prevent the response of any existing plant system required to mitigate the radiological consequences of any accident previously evaluated. Therefore, the proposed addition does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The heat trace is a non-Q component and is not required post-accident. The proposed addition does not create any additional failure modes for equipment that is important to safety. Therefore, the addition does not create the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.
- III. No. Tech Spec 3.3.3.1 - Post Accident Monitoring (PAM) Instrumentation requires that two H202 Analyzer channels be OPERABLE when in Modes 1 or 2. This is based on ensuring that there is sufficient information available on selected plant parameters to monitor and assess plant status and behavior following an accident. The heat trace circuit is not required post-accident and has been shown to have no affect on H202 Analyzer Operability for 100 days during normal power operation, therefore the proposed action will not reduce the margin of safety of any Technical Specification basis.

**SER NO: 01-020**

**CROSS REFERENCE: NL-98-001, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses acceptance of the fact that the Containment Instrument Gas (CIG) backup nitrogen storage bottles for both Unit 1 and Unit 2 are not designed to seismic Category I requirements, which is different than the configuration documented as the design and licensing basis for the system. Additionally, this evaluation addresses licensing document changes needed to support disposition of CR 97-4058.

**SUMMARY:**

- I. No. The proposed action consists of the documentation and acceptance of the plant configuration, with nitrogen storage bottles designed to Department of Transportation standards (as opposed to seismic Category I requirements), identified by CR 97-4058. The CIG backup nitrogen storage system provides an emergency source of compressed gas to the actuators of the six Main Steam Safety Relief Valves (SRVs) with Automatic Depressurization System (ADS) function to support long term post LOCA operation of the ADS valves. Failure of the CIG backup nitrogen storage system can not initiate an accident as defined in the SAR (Reference FSAR Chapters 6 and 15, Appendix 15A and SSES SER Section 9.3.1). The proposed action does not alter the function, reliability, or capability of the affected systems or components. The proposed action does not alter any conditions or assumptions previously considered in evaluating the radiological consequences of an accident or equipment malfunction as discussed in the SAR (Reference Chapters 6 and 15 and Appendix 15A). The proposed action does not adversely affect any system, structure or component that is required to mitigate the consequences of an accident or equipment malfunction. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The proposed action does not alter the function or operational logic of the CIG backup nitrogen storage system or ADS. The evaluation provided in support of the proposed disposition has shown that the seismic capability of the CIG nitrogen storage system is not degraded by this action thus, ensuring the reliability of the CIG backup nitrogen storage system and ADS. The proposed action does not create any new system interactions or introduce a different type of failure than previously credible (FSAR Chapter 6 and 15 and Appendix 15A). Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The evaluation provided in support of the proposed action has shown that the seismic capability of the CIG nitrogen storage system is not degraded. The proposed action does not reduce the degree of availability or the performance capability of the CIG backup nitrogen storage system or ADS that is considered in the basis for Technical Specification Section 3.5.1 Emergency Core Cooling System Operating. ADS is not required by Technical Specification 3.5.2 Emergency Core Cooling System

Shutdown. Therefore, the proposed activity will not reduce the margin of safety as defined in the bases for any Technical Specification.

**SER NO: 01-021**

**CROSS REFERENCE: DCP 98-3013B, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Area R2B and R-2A-213.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 2-4A-N, 2-413 or 2-4A-W. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 2-4A-N, 2-4B or 2-4A-W.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-022**

**CROSS REFERENCE: DCP 98-3007, DCP 98-3010, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to declare the protective fire barrier material inactive on selected raceways in Fire Areas R-1A, R-1A-1B, R-1B, R-2A, R-2A-2-B, R-2B and R-2D.

Cable tray covers will be installed to bring the raceways into compliance with electrical separation requirements.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action do not change. Appendix R safe shutdown can be achieved and maintained for postulated fires in respective Fire Areas covered within the scope of this modification.
- II. No. The proposed actions do not identify a postulated initiating event which would create the possibility of an accident of a different type. The interfacing system evaluations preclude the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by the Technical Specifications. The margin of safety as defined in the basis of the Technical Specifications is not reduced by the proposed action.



**SER NO: 01-023**

**CROSS REFERENCE: DCP 98-3029, Unit Common**

**DESCRIPTION OF CHANGE:**

This change will install a 30 KVA transformer downstream of the fused disconnect and a 3 $\phi$  208/120vac lighting panel in the I&C calibration lab to provide power for air conditioning evaporators in the Tool Room Facility. A receptacle, powered from the new lighting panel, will also be installed in the I&C calibration lab for a test pump.

**SUMMARY:**

- I. No. FSAR Sections 3, 6, 8, 9, 11, 12 and 15, FPRR and NUREG 0776 were reviewed and there are no analyzed accidents, transients, or equipment malfunctions that are affected by this modification.

Neither Electrical Load Center 2B170 nor its new loads perform any safety function. Adequate non IE power is available from the Load Center to accommodate the 30 KVA transformer load and it's associated lighting panel.

The addition of condensate heater pans for air conditioners in the non-safety related tool room facility will not impact the accidents, analyzed in the above documents since the tool room facility is non-safety related and operation, function, performance and availability of the Turbine Building (TB) HVAC is not affected by the condensate heater pans. Additionally, FSAR Section 9.4.4.1 states that the design objective of the TBHVAC is to maintain a slightly negative pressure to minimize exfiltration to the outside atmosphere.

- II. No. The Lighting Panel and TBHVAC do not perform a safety function and they do not interface with any safety related systems. The additional 30 KVA load on Load Center 2B170 or the additional load on the TBHVAC system **will** not adversely impact the operation of the Load Center or the TBHVAC for any mode of operation. A review of FSAR Chapter 6, 11, 12 and 15 was conducted to determine the impact of the proposed modification on the accidents presented in these chapters. No credit for the system is taken under accident conditions; thus the proposed action will not cause an accident or malfunction of a different type than previously evaluated in the FSAR.
- III. No. The following section of Unit 2 Technical Specification was reviewed for Load Center 2B170: 3.8 Electrical Power Systems: Load Center 2B170 (Non-IE) is not listed in table 3.8.7-1 for 480V Load Centers. The following section of the Unit 2 TRM was reviewed for the TBHVAC.

3.11.2.5 - Ventilation Exhaust Treatment System

TRO 3.11.2.5 requires that the Ventilation Exhaust Treatment System be available for use whenever gaseous effluents require treatment prior to release to the environment. This modification does not affect any aspect of this program.

#### 3.11.2.6 - Radioactive Gaseous Effluent Monitoring Instrumentation

TRO 3.11.2.6 requires that the radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.11.2.6-1 (for the Turbine Building Ventilation Monitoring System) shall be operable with their setpoints established in accordance with the ODCM to ensure that the limits of Requirements 3.11.2.1 are not exceeded. This modification does not affect any aspect of this program.

Therefore, this modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-024**

**CROSS REFERENCE: DCP 98-9006/98-9009, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action installs a new keylock switch to disable/enable the high speed function of the Main Turbine Turning Gear. In addition, indication lights will provide information regarding the disable/enable position of the switch and subsequent operating status of the high speed winding.

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. The proposed modification maintains the design basis of the Turning Gear. There is no increase in the probability of an accident since the modification involves no changes to equipment or logic in which failures could initiate the transients discussed in Chapter 15. There are no new safety concerns or conditions not already evaluated or discussed in Chapters 6 and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed action will not affect any structure, system, or component in performing its safety function. Since the basic function of the Main Turbine and Electric Power Systems will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- III. No. The proposed action does not have any effect on the operability and surveillance requirements as defined in the basis for any existing Technical Specification applicable to the Main Turbine and Electric Power System. Technical Specification 3.3.2.2, Feedwater Main Turbine High Water Level Trip Instrumentation, and Technical Specification 3.7.6, Main Turbine Bypass System, are related to the Main Turbine System. The proposed action has no impact to these Technical Specifications because no related physical or electrical logic changes occur. The overall performance of the Main Turbine remains the same as the original design and has no effect on the margin of safety required by any associated Main Turbine Technical Specifications. The non-1 E electrical system supplies the power to the new electrical components with additional loading being minimal. No Technical Specification related power systems are involved with this modification. No degradation to any station power distribution network occurs. Based on the above, the proposed action does not create any new failure modes and maintains the margin of safety as delineated in the Technical Specifications.

**SER NO: 01-025**

**CROSS REFERENCE: DCP 98-3021B, Unit 2**

**DESCRIPTION OF CHANGE:**

HV-251F008 is the Shutdown Cooling Suction Outboard Containment Isolation Valve. The valve is a 20" Anchor/Darling gate valve and uses a Limitorque SMB-3 actuator with a 150 ftlb motor. A modification will be implemented to replace the actuator motor pinion and worm shaft gear.

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The gearset replacement will not affect the pressure retaining boundary of the valve or adversely affect the active safety function for HV-251F008, its hydraulic characteristics, or its seat leakage characteristics.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effects of the modification are to decrease the inertial forces after torque switch trip and to increase the motor capability margin. Neither of these effects create the possibility of a new accident or malfunction. The active safety function, which valve is to close under Shutdown Cooling System isolation logic signals, is not adversely impacted by the modification. This valve does not have an active safety function to open.
- III. No. The modification will not reduce the margin of safety as defined in the basis for any Improved Technical Specifications. The integrity of the valve pressure boundary, hydraulic characteristics, and valve seat leakage rate will not be adversely affected by the actuator gearset replacement.

**SER NO: 01-026**

**CROSS REFERENCE: NL-98-111, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action revises portions of FSAR Section 6.1.2 and Tables 6.1-1b, 6.1-2 and 6.1-3 to incorporate current Engineered Safety Features Materials and Containment/component coatings. This review included validating the correct current application and listing of the materials used. This Evaluation revises the FSAR Section 6.1.2, Tables 6.1-1b, 6.1-2 and 6.1-3 to meet RG 1.70 requirements.

**SUMMARY:**

- I. No. Section 6.1.2 of the FSAR discusses the quantities, types, and quality classification of coating installed in the SSES containment. It also describes the potential impact of containment coatings on Emergency Core Cooling System (ECCS) safety functions following a DBA. Containment coatings do not impact the initiation of a DBA or increase the probability of the occurrence on an accident.

Likewise, Section 6.1.1 of the FSAR discusses the insulation requirements with respect to the High Energy Line Break (HELB) Criteria. In no way does insulation impact the initiation of a DBA or increase the probability of the occurrence on an accident. Its impact on ECCS system safety functions following a DBA could result in some suction strainer blockage, similar to the coating debris discussed above. However, the effects of insulation, on ECCS pump suction strainer blockage has been evaluated to not be a safety problem.

The potential affect on safety functions of gaskets and valve gland packing materials is to present a leak path to containment in event of their failure. Their impact on ECCS system safety functions does not increase the probability of initiation of a DBA or increase the probability of the occurrence of an accident.

- II. No. Section 6.1.1 of the FSAR discusses the insulation requirements with respect to the HELB Criteria. Insulation can contribute to post-LOCA debris and some suction strainer blockage however, it does not cause any of the accidents or malfunction not already evaluated in the FSAR. The effects of Min-K insulation, on ECCS pump suction strainer blockage has been evaluated and results show that it is not a safety problem. The proposed change to FSAR Table 6.1-1b involves the inclusion of Min-K insulation. This insulation is currently in use in SSES Units 1 and 2 and has been approved and qualified for nuclear applications however, has not been referenced in the FSAR. These proposed changes support the requirements of the current licensing basis. Therefore, the proposed change to the FSAR does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR?

- III. No. The Technical Specifications do not discuss containment coatings, insulation, gaskets and valve gland packing material or their impact on the consequences of accidents or ECCS system operability specifically. These materials however, contribute

(directly or indirectly) to events, which are described in the Technical Specifications. For example, coatings and insulation influence the operability of ECCS Systems and the Suppression Pool as defined in Technical Specification Sections 3.5.1 through 3.5.3 and 3.6.2.1 through 3.6.2.4. Likewise, gaskets and valve gland packing materials influence the operability of Reactor Coolant System (Technical Specification Section 3.4.4) and ECCS Systems (Technical Specification Section 3.4.4).

The effects of coating materials and Min-K insulation, on ECCS pump suction blockage has been evaluated and results show that it not a safety problem.

The potential affect on safety functions of gaskets and valve gland packing materials is to present a Leak path to containment in event of their failure. This event (accident) possibility falls in the category for non-recirculation line breaks. NEDC-32071P, Rev. 1 (SSES Units 1 and 2 SAFER/GESTR-LOCA Loss of Coolant Accident Analysis, July 1993) presents analyses of this category of accidents (small breaks) and the results clearly demonstrate that these postulated breaks are significantly less limiting than the postulated recirculation line breaks, and therefore, is bounded by those breaks. (Limiting Break, Appendix K Basis).

Therefore, the proposed changes to the FSAR do not reduce the margin of safety as defined in the basis for any Technical Specification and evaluated previously in the SAR.

**SER NO: 01-027**

**CROSS REFERENCE: NL-98-117, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action revises the equipment nameplate as-built capacities for the following non-class 1E and class 1E equipment: The 13.8 kV buses 11A, 11B, 12A, and 12B are non-class 1E equipment that supply auxiliary power; The 13.8 kV buses 10 and 20 are non-class 1E equipment that supply offsite power to class 1E 4.16kV buses; The non-essential 480 Volt load centers supply power to the non-class 1E 480 volt motor control centers which in turn supply individual equipment loads; The class 1E 208/120 instrument ac buses supply power to instrument and control systems.

**SUMMARY:**

1. No. The proposed change revises the published MVA bracing and ampere symmetrical interrupting rating for the above components. The non-class 1E 13.8 kV switchgear ratings are increased from 750 to 1,000 MVA bracing and the symmetrical interrupting rating is increased from 28,000 to 37,000 amperes. The non class 1E 480 volt load center bus bracing is revised from 1000/1500 to 1000/1333 kVA. The class 1E 208/120 V ac bus sym interrupting rating was increased from 10,000 to 42,000 A. The change reflects the as installed equipment. The rating reflects the components ability to function and sustain operation in the event of receiving unusually high fault current characteristics.

FSAR chapter 15 describes accidents initiated by the loss of auxiliary power and is applicable to 13.8 kV buses 11A, 11B, 12A, and 12B. Chapter 15 also describes a LOCA and a Station Blackout scenario that is applicable to loss of offsite power and the 13.8 kV buses 10 and 20. Even though these accidents are applicable, they are less likely as a result of the increased component ratings.

- II. No. The proposed action does not create the possibility for an accident or malfunction of a different type from that previously evaluated in the SAR. The change identifies the capability for the components to sustain operation. The proposed action does not change the overall design and normal or abnormal operating strategies of the components. The increased component ratings decrease the possibility for an accident or malfunction to occur.
- III. No. Electrical power systems are described in section 3.8 of the Technical Specification and Bases.

Technical Specification LCO 3.8.1 requires two qualified power circuits between the offsite transmission network and the onsite class 1E AC electrical power distribution system. The 13.8 kV startup buses 10 and 20 are part of these circuits. Technical Specification LCO 3.8.7 requires two buses in two divisions of 208/120 class 1E instrument ac. The non-class 1E 13.8kV and the class 1E instrument ac circuits are as required by Technical Specifications. The proposed change reflects increased interrupting and/or bus bracing electrical ratings for the 13.8kV components. The

capability for the equipment to withstand an electrical fault is greater than that presently indicated. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for the Technical Specification.

The non-class 1E 480 V load centers are not required by Technical Specifications.



**SER NO: 01-028**

**CROSS REFERENCE: NL-98-113, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed change to HP-TP-441, Attachment A will allow raising the field setpoint for plant Area Radiation Monitors (ARMs) that will be affected by area dose rate increases as a result of implementing Hydrogen Water Chemistry (HWC) to a level which will not cause ARM alarms under normal plant operations.

**SUMMARY:**

- I. No. The ARM system performs no safety or operational function other than alarm and indication and does not directly interface with any other system other than its power source. As such this system does not contribute to the probability of occurrence of an accident. The consequences of an accident are not changed by the proposed field setpoint change because it has no direct effect on any other equipment.
- II. No. The proposed field setpoint change does not affect the ability of the ARM or any other equipment to function and does not affect potential malfunctions within the ARM system. The ARM system does not directly interface with any equipment important to safety. The ARM system does not perform an active function other than alarm and indication. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR.
- III. No. The only ARMs covered in Technical Specifications are criticality monitors. The ARMs affected by the proposed field setpoint change are not criticality monitors. As a result, this change does not affect the margin of safety, as defined in the basis of any Technical Specification.

**SER NO: 01-029**

**CROSS REFERENCE: NL-98-116, Units 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed changes update the Shielding and Radiation Zoning Maps to reflect changes in actual plant conditions.

**SUMMARY:**

- I. No. The proposed zoning changes do not impact/effect/manipulate any equipment or process which effects/impacts the offsite dose to the public. Additionally, no- accidents (as described in the SAR) could be precipitated or impacted by these changes, therefore no increase in the probability of occurrence of the consequences of an accident or malfunction of equipment important to safety can occur.
- II. No. This change does not impact, manipulate or effect any plant equipment, either physically or administratively, therefore there is no possibility for an accident or malfunction of any type to occur as a result of the proposed action.
- III. No. The proposed changes do not effect any physical parameters, instruments, response times, redundancy or independence of components. Therefore, no margin of safety is reduced as defined in the basis for any Technical Specification.

**SER NO: 01-030**

**CROSS REFERENCE: TRAR 98-12-17A, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This change revises TRM 3.3.4, "TRM Post Monitoring Instrumentation" to allow continued operation at power with failed acoustic monitor channels providing alternative methods are available to provide control room operators with information as to the Safety Relief Valve (SRV) position. These alternate methods provide reasonable diversity and reliability to ensure that appropriate operator response occurs to an open SRV event.

**SUMMARY:**

- I. No. This change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The acoustic monitors do not affect the operation of the safety/relief valves. The SRV safety-valve function (ITS 3.4.3), safety-related ADS function (six selected valves-ITS 3.5.1) and non-safety related automatic and manual relief functions are independent of the acoustic monitoring function. No failure or mis-operation of the acoustic monitoring system can affect the ability of these valves to perform their design functions.

Operation without the SRV acoustic monitor will not affect the plant response to the stuck open relief valve at power or hot shutdown conditions. The stuck open SRV transient as analyzed in the Design Assessment Report (DAR) indicates that the maximum pool transient temperature (185°F) does not approach the NUREG 0783 accepted limit (208°F bulk pool temperature).

The probability of a Stuck Open SRV Event is not affected by the lack of position indication for the SRV. The ability to detect the stuck open SRV condition is adequately covered by the tail pipe temperature indication and secondary reactor vessel and steam cycle parameter indications, and will not result in an increase in the probability or consequences of an accident previously evaluated.

- II. No. This proposal does not create the possibility of a new or different type of accident from any previously evaluated. The SRV Acoustic Monitor performs no control or active protective function other than indication. Failure or misoperation of this device will not cause an unanalyzed failure or misoperation of an engineering safety feature. Because of the diverse and redundant indication system described above, misoperation of this system will not cause the operator to take unanalyzed actions, nor will it cause the operator to commit errors of commission or omission, and as such will not create the possibility of a new or different type of accident.
- III. No. This change does not involve a significant reduction in a margin of safety as defined in the basis for any Technical Specifications. Operating without an SRV position indication does not reduce the design or operating basis margin to safety. Primary Containment controls are in place that can effectively deal with the operating condition. In the unlikely event that the SRV should cycle open and fail to fully close,

sufficient indication would be available to identify and mitigate the occurrence. Thus, the proposed change does not involve a significant reduction in a margin of safety.

**SER NO: 01-031**

**CROSS REFERENCE:** DCPs 96-3018, 96-3019, 96-3020, 96-3021A, 96-3021B, 96-3021C, 96-3021D, Unit N/A

**DESCRIPTION OF CHANGE:**

Improved Technical Specification 3.8.3.3 and 3.8.3.5 changes the requirements for determining the suitability of the Diesel Generator fuel oil storage in the underground Diesel Generator Fuel Oil Storage Tanks (OT-527A, B, C, D, and E).

**These modifications will:**

- Provide one pumping station for Diesel fuel oil storage tanks (a, B, C, D) and one pumping station for Diesel fuel oil storage tank E, which will result in easy water removal that does not require declaring the respective Diesel Generator inoperable.
- Provide a method of fuel oil sampling utilizing the same pumps that are used for water removal. This provision would allow oil sampling without security support.
- Install tubing, through existing tank penetrations which are located directly above the water sumps, for water removal and oil sampling./
- Provide an oil filtration suction pipe through the same existing tank penetration used for water removal and oil filtering. Use another existing tank penetration for a filtered oil return line. Provide threaded piping connections to an existing 250 gpm skid-mounted oil filtering system.
- Relocate the vent pipe connection to tank OT-527E, from its present location to the manway cover.

**SUMMARY:**

- I. No. The Fuel Oil Water Removal Systems will be located in close proximity to the affected Diesel Generator Fuel oil Storage Tanks (OT-527 A-E). Other than insertion of an oil filtration pipe and water removal and oil sampling tubes into each of the Fuel Oil Storage Tanks (with one point of contact) and the relocation of the vent pipe on the OT-527E tank, these systems are independent of all safety systems and do not require interface with any existing safety systems used for mitigation of accidents. The new pipes and tubes are designed to ASME Sections III (CLASS 3) and XI requirements. Neither the volume of oil available in each tank nor the operation of the oil transfer system are affected by this proposal. The functions of water removal, oil sampling and oil filtration are not safety-related. They provide greater assurance that the fuel oil used by the diesel engines meets the quality requirements of ITS sections 3.8.3.3 and 3.8.3.5. The proposed systems are a means of meeting the requirements of Improved Technical Specification 3.8.3.3 and 3.8.3.5. The proposed action will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. Since the water removal systems do not interface with the operation of any safety-related systems, the failure modes of equipment important to safety are unaffected by the proposed modifications. The water removal systems do not introduce any new failure mechanisms that could affect equipment important to safety as the pipes and tubes protruding into the tanks are designed to withstand a seismic event and, therefore, would not fall into the tank. In addition, the proposed modifications only introduce an easy method of water removal, oil sampling and filtration complying with Improved Technical Specifications 3.8.3.3 and 3.8.3.5. Based upon the above, it is concluded that the proposed modifications do not create the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.
  
- III. No. The new water removal and sampling systems and oil filtration are not addressed by current Technical Specifications. The Improved Technical Specifications have more stringent requirements on the Diesel Generator Fuel Oil Storage and Transfer system water removal and sampling but do not address means to address these requirements. These modifications do not affect the functionality of the safety-related Fuel Oil Storage and Transfer System nor do they affect the expected system flow rates required to provide fuel oil to the standby diesel engines. Therefore, it is concluded that the proposed modifications do not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-032**

**CROSS REFERENCE: NL-98-007, Unit N/A**

**DESCRIPTION OF CHANGE:**

This action installs a temporary rigid barrier in a Control Structure (CS) Ventilation Boundary Door Frame to maintain Control Structure Pressurization during door repair.

**SUMMARY:**

- I. No. Implementation of the proposed action, which installs a temporary rigid barrier to allow maintenance to be performed on CS Ventilation Boundary Doors, does not directly or indirectly reduce the capability of any safety systems to perform their design basis functions, to mitigate the effects of any accident previously evaluated in the SAR. The proposed action does not change, degrade or prevent the response, of any existing plant system required to mitigate the radiological consequences of any accident previously evaluated. Therefore, the proposed addition does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed action, does not change the operation or function of the Control Structure HVAC system. No new failure modes are introduced that would create the possibility of a new accident. The safety function of Control Room Emergency Outside Air System (CREOASS) is to provide filtered outside air to the Control Structure and to maintain the Control Structure at a positive 1/8" WG pressure post accident. CREOASS has a post accident function, but is not an accident initiator. Therefore, this action does not create the possibility of an accident of a different type than any previously postulated in the SAR.
- III. No. The proposed action, will have no adverse effect on the Filtration mode of CREOASS. In addition, this action will not increase post DBA Control Room Operator Dose. Therefore, implementation of this action does not reduce the margin of safety implied in the basis for TS 3.7.3 or any other Technical Specification.

**SER NO: 01-033**

**CROSS REFERENCE: NL-98-120, Unit N/A**

**DESCRIPTION OF CHANGE:**

Paragraph three to FSAR section 8.3.1.7 list the control room instrumentation supplied from the 1(2)Y115 and 1(2)Y125 panels. Contrary to the FSAR, the Condensate storage tank level transmitters are powered from non class 1 E source OCB518A/B and not one of 1(2)Y115 or 1(2)Y125

**SUMMARY:**

- I. No. The Condensate system condensate storage tank and instrumentation are non class 1 E components. Low level conditions in the condensate storage tank do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety as evaluated in the SAR. SSES transients and accidents outlined in FSAR Chapter 15 for loss of offsite power, inadvertent High Pressure Coolant Injection (HPCI) initiation, LOCA, and SBO do not rely upon condensate storage tank level. The safety functions outlined rely upon the initiation of HPCI and Reactor Core Isolation Cooling (RCIC). Inputs to the probability of occurrences or consequences are not related to condensate storage tank level instrumentation. The function important to safety is HPCI and/or RCIC flow and not the condensate storage tank level. If needed, automatic transfer to the suppression pool provides continued flow. Therefore the probability is not increased.
- II. No. The condensate storage tank function is not relied upon in the event of an accident or malfunction. The condensate storage tank is non class 1 E and is not important to safety as evaluated in the SAR. The HPCI system initially injects water from the condensate storage tank. When the water level in the tank falls below some predetermined level or suppression pool level is high and the injection valve is open, the pump suction is automatically transferred to the suppression pool. The RCIC system also takes suction from the condensate storage tank with automatic switch over when the condensate storage tank level is low. Automatic transfer to the suppression pool is not affected by this change. The suppression pool level indication is powered by class 1 E instrument and control power supply. The supply is not affected by this change. Indication is available upon loca/loop, station blackout, and in the remote shutdown panel. The action does not create a possibility for an accident or malfunction of a different type than previously evaluated.
- III. No. Technical Specification sections 3.3.5.2 Reactor Core Isolation Cooling System Instrumentation Function #3 and 3.3.5.1 Emergency Core Cooling System (ECCS) Instruments HPCI Function #3d requires calibration of the class 1 E low level switches which provide the automatic transfer from condensate storage tank to suppression pool on low level. The function itself is only required in plant conditions 2 and 3 and reactor steam dome pressure greater than 150 psig. The change does not affect these components and therefore does not reduce the margin of safety in TS.



**SER NO: 01-034**

**CROSS REFERENCE: NL-98-122, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action involves revising portions of FSAR Section 3.9.3.2a.5.3 to incorporate accurate design seismic acceleration information and text for ASME Code constructed items.

**SUMMARY:**

- I. No. This Evaluation updates the FSAR Section 3.9 for the revised ASME allowable and calculated stresses, accelerations and fatigue cycles. The proposed changes to FSAR section 3.9.3.2a.5.3 involve the inclusion of seismic accelerations that have been verified and are current however, have not been referenced in the FSAR. These proposed changes support the requirements of the current licensing basis. The revised values are in compliance with ASME Code criteria.

Therefore, the proposed changes to the FSAR do not increase the probability or consequences of an accident or malfunction of equipment important to safety previously evaluated in the SAR.

- II. No. The valve accident (wall, nozzle breaks) possibility of Reactor Recirculation system pipe breaks and single loop operation (SLO) ECCS performance have been analyzed as part of the Power Upate Program (PUP). NEDC-32071P, Rev. 1, (SSES Units 1 and 2 SAFER/GESTR-LOCA Loss of Coolant Accident Analysis (FSAR Chapter 15), July 1993) presents analyses of this category of accidents and the results clearly demonstrate that these postulated Recirculation System accidents are bounding and do not comprise a different type of malfunction or accident.
- III. No. Design transients which are used in the design of ASME Boiler and Pressure Vessel Code (ASME Code – ASME Boiler and Pressure Vessel Code, Section III, Division 1, Nuclear Power Plants Components, - 1968 Edition with Addenda to and including Summer 1970) Class I RCPB components are shown in the design specifications for the components and must meet Technical Specifications.

Technical Specification 3.4 "Reactor Coolant System," describes requirements of the limiting conditions for operation of the recirculation loops with the reactor at thermal power. Since the proposed FSAR change does not impact the operation of the Reactor Recirculation System, any margin of safety defined in the basis of Technical Specification for these as a result of this FSAR change is not reduced.

**SER NO: 01-035**

**CROSS REFERENCE: NL-98-115, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This safety evaluation documents the acceptability of hanging three control blades from a storage bracket using slings. It supports the revision of Section 9.1.2.1.3 of the FSAR by deleting the wording which limits long-term storage to the brackets on the north wall of the Unit 1 spent fuel pool and the south wall of the Unit 2 spent fuel pool and which limits the number of control blades per hanger to two when extended sling assemblies are used.

**SUMMARY:**

- I. No. The design basis accidents listed in Chapter 15 of the FSAR were reviewed for potential impact by this change. Hanging three control blades from a storage bracket using slings does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. This change also has no impact on the analysis provided in Chapter 9A of the FSAR for the non-seismic spent fuel pool cooling system.
- II. No. The hanging of three control blades from a storage bracket using slings does not create the potential for a new type of unanalyzed accident or a new type of malfunction. The brackets were originally designed to support three control blades and the use of slings to hang the blades has previously been reviewed.
- III. No. Section 4.0 of the Technical Specifications addresses Design Features. Included under Section 4.0 is Section 4.3 Fuel Storage. Section 4.3.2 Drainage states that the spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 816 ft - 9 inches. Since this change does not effect the structural integrity of the spent fuel pool, it has no impact on spent fuel pool drainage and thus the margin of safety is not reduced.

**SER NO: 01-036**

**CROSS REFERENCE: NL-98-110, Unit N/A**

**DESCRIPTION OF CHANGE:**

This Evaluation supports a temporary Bypass that installs a jumper and opens a States Link to allow a train of Control Constructure Heating and Ventilating (CSHV) fans (OV117A/B, OV115A/B and OVI03A/B) to autostart, in the event of a trip of the alternate train, CSHV fan or chiller concurrent with an "out of service" Control Structure Chiller, OK112A/B. Restoring the autostart function increases the available equipment to mitigate the consequences of an accident.

**SUMMARY:**

- I. Implementation of the proposed action, does not directly or indirectly reduce the capability of any safety systems to perform their design basis functions, to mitigate the effects of any accident previously evaluated in the SAR. This implementation of the proposed action does not change, degrade or prevent the response, of any existing plant system required to mitigate the radiological consequences of any accident previously evaluated. Therefore, the proposed addition does not increase the probability of occurrence or the consequences of an accident or, malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed action, does not change the function of the Control Structure HVAC system. No new failure modes are introduced that would create the possibility of a new accident. The safety function of Control Room Emergency Outside Air Supply System (CREOASS) is to provide filtered outside air to the Control Structure and to maintain the Control Structure at a positive 1/8"WG pressure post accident. CREOASS has a post accident function, but is not an accident initiator. Therefore, this action does not create the possibility of an accident of a different type than any previously postulated in the SAR.
- III. The proposed action, will have no adverse effect on the filtration or pressurization functions of CREOASS. In addition, this action will not increase post DBA Control Room Operator Dose. Therefore, implementation of this action does not reduce the margin of safety implied in the basis for TS 3.7.3 or any other Technical Specification.

**SER NO: 01-037**

**CROSS REFERENCE: NL-98-3028, Unit N/A**

**DESCRIPTION OF CHANGE:**

This modification will disconnect the Dry Active Waste (DAW) Second Sort Facility from all plant systems (Fire Protection, Non-ESS 480V AC power, plant page and telephone) allowing it to be removed from the Radiologically Controlled Area (RCA). AC power and the plant page will be relocated to a trash compactor which is currently next to this facility.

**SUMMARY:**

- I. No. The FSAR (Section 3, 8, 9, 11 and 15), Fire Protection Review Report, and Offsite Dose Calculation Manual (ODCM) have been reviewed. The systems affected by this modification are not included as initiating events, nor do they interface with systems which are. In addition, the only system important to safety that is affected is the Fire Protection System. Since the design bases and function of this system remains unchanged, and this modification will be designed to the appropriate Codes and Standards, this system will not be adversely affected. Finally, the removal of the DAW Facility will eliminate an insignificant effluent pathway with not adversely impacting any barrier to existing pathways or creating a new pathway. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Based upon a review of this modification with reference to the SAR, this modification does not adversely impact any system interface to a safety-related system nor create any new interfaces. Also, no new failure modes for a safety-related component has been created, and no barrier to an effluent pathway has been adversely affected. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The Unit 1 and Unit 2 Technical Specifications (specifically 3.8) and Technical Requirements Manual (specifically 3.7.3), and the ODCM have been reviewed. Based upon this review, the only parameter identified with a margin of safety is Gaseous Effluents (offsite dose limits). Since this modification eliminates an effluent pathway without adversely impacting any other, nor creating a new one, this modification will not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-038**

**CROSS REFERENCE: DCP 97-9021/97-9022, REV. I, Units 1, 2**

**DESCRIPTION OF CHANGE:**

Replace the existing Unit One and Unit Two offgas pretreatment subtrain flow sensors, FE-17125A&B and FE-27125A&B with instruments capable of accurately measuring low offgas flow.

**SUMMARY:**

- I. No. This change does not increase the probability of a failure of the offgas system because there are no changes that affect the functional operation of offgas to process noncondensable gases from the main condenser effluent. Furthermore, physical integrity of the system boundary is maintained by assuring that the new pipe section and instrument will have structural strength and detonation resistance equal to the existing line. The new pipe section will be installed in accordance with the requirements of ANSI B31.1 and ETSB-11. To preclude moisture intrusion into the charcoal beds, radiographic examination (or surface examination of the root, hot and final welding passes) will be performed in lieu of hydrostatic testing for the new pressure boundary welds. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR, (Reference FSAR Sections 11.3.2 and 15.7.1).
- II. No. The modification does not create a new failure mode, including common mode failure. The modification does not create a new or potentially limiting operating transient. It does not create a new radioactive waste component or system failure, nor the possibility of a radiological release above applicable fraction of 10CFR100 or 10CFR20 limits. It does not create a new component or system interaction and is not associated with procedures or testing changes that would result in component/system performance outside the design range. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR., (Reference FSAR Sections 11.3.2 and 15.7.1).
- III. No. The gaseous waste systems are designed to limit offsite doses from routine station releases to doses significantly less than the limits specified in 10CFR20, and to operate within the dose objectives established in 10CFR50, Appendix 1. Replacement of the offgas flow instrument does not change the content of the noble gases from the main condenser. The new instrument improves the ability to more accurately calculate the release rate and to more accurately monitor small changes in the offgas flow rate. Therefore, the proposed action does not reduce margin of safety as defined in the basis for any Technical Specification. (Reference Technical Specification Basis B 3.7.5)

**SER NO: 01-039**

**CROSS REFERENCE: 98-3014A, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Area R-1A, R-1B and R-1A-1B.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 1-2B, 1-2D), 1-3A, 1-3B-N or 1-38-W. Calculation demonstrates that the existing configuration in the vicinity of the cable tray sections listed above provides an equivalent level of assurance as those requirements of 10 CFR 50 Appendix R, Section III.G.2.b. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 1-2B, 1-2D, 1-3A, 1-3B-N or 1-3B-W.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. Acceptance of the existing configuration in the vicinity of cable tray sections F1KH15 and F1KL15 does not result in a change to the Technical Specifications. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-040**

**CROSS REFERENCE: DCP 97-9114, 97-9115, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed modification(s) replace the existing five Bailey 771 recorders and associated GE CR2940 signal selector switches/pushbuttons located on Control Room SIP 1/2C652-42B used in Neutron Flux Monitoring Subsystems with the five (5) Westronics (4-pen) Model 1600A programmable recorders.

**SUMMARY:**

- I. No. The proposed action does not affect any of the postulated initiating events for which transients or anticipated operational occurrences and accident conditions (FSAR Sections 7.1.2a.1.4, 7.2.1.1.4.2a, 7.2.2.1.2.3.1.2, 7.2.2.1.2.3.1.7, 7.6.1a.5, 7.6.1a.5.6.1.1(4), Tables 3.2.1 & 7.1-1, and Chapter 15) were analyzed. The proposed action does not involve a precursor of, or a contributor to, any evaluated accidents involving offsite dose. This change has no effect on any accident scenarios or malfunction of equipment important to safety, and has no effect on radiological consequences.

The proposed action does not affect the post-accident neutron flux monitoring function required by Reg. Guide 1.97 provided by the conventional Neutron Monitoring System (NMS) which meet the alternate criteria established in GE NEDO-31558. The proposed change will allow operators to monitor and record all of the Average Power Range Monitor/Intermediate Range Monitor/Source Range Monitor/Rod Block Monitor (APRM/IRM/SRM/RBM) input channel signals (power level) directly on the replacement recorder(s) without using the selector switches, and enhance the overall NMS performance and reliability. This change does not adversely affect any safety-related plant systems or components. Therefore, the proposed change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.

- II. No. The subject NMS recorders have no safety-related function; they provide neutron flux information to the operators and for post-accident monitoring (PAM). On a loss of power, the replacement recorder will automatically return to recording mode (power up) upon power restoration with no operator action. The proposed action provides electrical isolation between the APRM/IRM/RBM system Class I E analog interface signal circuits and non-Class IE replacement recorders by utilizing the existing Class IE qualified analog isolators. Therefore, the recorder failure will not degrade the safety-related APRM and IRM protective trip unit outputs.

No new failure modes result from these modifications. The proposed modifications to the panels do not adversely impact the dynamic qualifications of the subject existing panels. The proposed change does not, therefore, create the possibility of an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Tech Spec 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation", specifies the operability and surveillance requirements (channel check and channel calibration) for neutron flux monitoring system channels. The PAM function for neutron flux is satisfied by any one channel A-F of APRMs in each division. However, Tech Spec Bases 3.3.3.1 will be revised to reinstate previously identified criteria of GE NEDO-31558A which provides alternate criteria for the NMS to meet the PAM guidance of Reg. Guide 1.97. Tech Spec Section 3.3.1.2, "Source Range Monitor", specifies minimum number of SRM channels for operability. The conventional NMS provides neutron flux recording capabilities at Standby Information Panel, as well as providing inputs to the plant computer. The proposed action maintains the design basis function of the post-accident neutron flux monitoring function required by Reg. Guide 1.97, via APRM channels A-F. The overall performance of the NMS, including neutron-flux monitoring (PAM) instrumentation, remains same as original design. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-041**

**CROSS REFERENCE: DCP 95-9062/95-9063, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This modification provides replacement level switches on the main steam and bypass line drain drip legs. The existing level switches have experienced a high failure rate during the life of the plant.

**SUMMARY:**

- I.. No. The proposed action does not affect the spectrum of postulated events for which transients and accident conditions were analyzed. The proposed modification maintains the Main Turbine System design basis by eliminating erroneous control and annunciation signals from drip leg level switches. The proposed action maintains the commitment to provide meaningful main turbine protection to ensure safe operation of the unit. There is no increase in the probability of a main turbine event since the modification involves no changes to equipment or logic in which failures could initiate the transients discussed in Sections 15.2 and 15.3 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function and will be more reliable than the existing level switch configuration. Therefore, the changes do not create a possibility for an accident or malfunction of a different type than any previously in the SAR.
- III. No. Changing main steam and bypass line drain drip leg level switches does not have any adverse affect on the operability and surveillance requirements as defined in the basis for any existing Technical Specification applicable to the Main Turbine System. This occurs because the proposed action does not degrade, in any way, the Main Turbine Control System scheme, performance or indication logic. In addition, no adverse impact to the Electric Power System occurs. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-042**

**CROSS REFERENCE: NL-99-003, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This change updates FSAR Section 2.4 to agree with the latest design bases shown in new and/or revised engineering calculations or design drawings.

**SUMMARY:**

- I. No. The proposed changes to FSAR Table 2.4-7 and to FSAR Section 2.4.11.5 do not create or result in any physical changes to the plant equipment, procedures or training. Each of the changes incorporates the existing design bases which are presently shown incorrectly in the FSAR.

Various values must be corrected in FSAR Table 2.4-7 (Maximum Ponding Depths on Roofs of Safety-related Structures for Local All-Season probable maximum precipitation (PMP). Each of these values supports the design requirement that the roof of each safety-related structure must be designed to support the weight of water ponding during the local probable maximum precipitation assuming the roof drains are blocked by debris or ice accumulation.

FSAR Section 2.4.11.5 gives the minimum water level necessary for the required net positive suction head (NPSH) of the Emergency Service Water (ESW) and Residual Heat Removal Service Water (RHRSW) pumps. Both NPSH calcs established the original design bases and show that sufficient NPSH is always available based on a minimum water level of 669 feet (minimum level after 30 days without any makeup to the spray pond).

This Evaluation supports a change which incorporates the above corrections to FSAR Section 2.4. These proposed changes support the requirement of the current licensing basis. They do not create or result in any physical changes to any structures, systems or components. Therefore the proposed changes to the FSAR do not increase the probability or consequences of an accident or malfunction of equipment important to safety previously evaluated in the SAR.

- II. No. A review of FSAR Chapter 15 accidents showed that the proposed changes do not affect any of these accidents.

This Evaluation supports a change which corrects the original design bases as described above in FSAR Section 2.4. The proposed changes to FSAR Table 2.4-7 and FSAR Section 2.4.11.5 do not create or result in any physical changes to the plant equipment, procedures or training. Therefore the proposed changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The proposed changes to FSAR Table 2.4-7 and FSAR Section 2.4.11.5 do not create or result in any physical changes to the plant equipment, procedures or training.

As a result the proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification.

Technical Specifications sections 3.4.8, 3.4.9, 3.5.1, 3.5.2, 3.7.1 and 3.8.1 were reviewed. The proposed changes to the minimum water level for the required NPSH of the ESW and RHRSW pumps will bring the FSAR into agreement with TS B3.7.2. The minimum water level for required NPSH values presently shown in the FSAR shows that the water for the ESW pumps bounds the RHRSW pumps. However, the proposed changes show that the required water level for the RHRSW pumps bounds the ESW pumps which is in agreement with B3.7.2. As a result, the only surveillance requirement for minimum water level for these pumps is for the RHRSW pumps as shown in SR 3.7.1.1. This surveillance requirement is a verification at least every 12 hours that the water level of the spray pond is greater than or equal to 678 feet 1 inch.

**SER NO: 01-043**

**CROSS REFERENCE: NL-99-004, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The CLB detailed review of FSAR Section 9.3.3 and other related sections, Tables and Figures resulted in several editorial clarifications and corrections. Several historical discrepancies in Table 9.3-10 were discovered which are being corrected. In addition, two Technical changes are being made as follows: 1) The deluge time for Main Transformer Pit is being reduced from 15 minutes to 10 minutes, and 2) The seismic category of the drywell floor drain sump level Instrumentation is being changed from Seismic Category I to "qualified for Operating Basis Earthquake (OBE)."

**SUMMARY:**

- I.. No. The editorial, clarification and as-built corrections to sump or tank and pump data in Table 9.3-10, does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety. All the changes being made are related to the non-safety related components. Isolation of the piping penetrating the containment is the only safety function of the system. This safety function is not impacted by the proposed changes to FSAR. Main Transformers and their pits are not safety related and are not required for safe shutdown or to mitigate the consequences of design bases accidents. Onsite and Offsite power is available for all safety related electrical loads. The Seismic Category I being changed to "qualified to OBE" for drywell sump level instrumentation has no impact as the instrumentation was designed to OBE per Reg. Guide 1.45 and other licensing criteria.
- II. No. The FSAR changes in Table 9.3-10 reflecting as-built component data and other minor editorial and clarification changes as proposed will not create the possibility for an accident or malfunction of a different type than any evaluated in the SAR. All components for which changes are being proposed are non-safety related.

Chapter 15 in FSAR does have accident related to fire or loss of main and auxiliary transformers. the Fire Protection Review Report (FRRR) analyses various fire hazards at Susquehanna. Transformer deluge longer than 10 minutes will result in overflow of oil (on top of water) to other transformer pits or ground outside the pit. Such ground contamination or extension of fire to other transformers has an economic impact but no safety consequence (Industrial or radiological).

The Seismic Category classification change is being made to the FSAR statement. The instrumentation in the plant is already designed, procured and installed to comply with OBE as required by Reg. Guide 1.45 and other licensing criteria in FSAR. TSS 3.4.4 and 3.4.6 govern the use, testing and availability of drywell floor drain sump level instrumentation for determining the unidentified leakage.

- III. No. The editorial, clarification changes to FSAR Section 9.3.3 and as-built changes to FSAR Table 9.3-10 do not result in impacting any Technical Specification or licensing commitment. The margin of safety as defined in the basis for the applicable Technical Specification is not reduced and no changes need to be made to the existing Technical Specification. The fire protection TS and their bases were reviewed and the margin of safety involved are not impacted by the change in the design bases of the pit reducing the deluge time, from 15 minute to 10 minutes. Existing pit is sized for containing all transformer oil and 10 minutes deluge only. Longer deluge and resulting additional fire or ground contamination has economic consequence but no impact on radiological safety. The margin of safety provided by unidentified leakage TS (3.4.4 and 3.4.6) are not impacted by the correction of seismic category statement in FSAR. The level instrumentation and the drywell floor drain sump are designed to OBE spectra as required by Reg. Guide 1.45. Susquehanna fully complies with this Reg. Guide and other licensing documents.

**SER NO: 01-044**

**CROSS REFERENCE: DCP 95-9007 (95-9008), Units 1, 2**

**DESCRIPTION OF CHANGE:**

Installation of guardrail & ladder cage on standby liquid control (slc) storage tank 1(2)T204

**SUMMARY:**

- I. No. Based upon a review of the FSAR (Sections 9.3.5, 3.9.2.2a.2.13, 3.9.3.1.7, Table .9-2m, 15A.6.6 and Nuclear Question 32.18), the Fire Protection Review Report and SSES Safety Evaluation Report, no accidents analyzed will have their probability increased as a result of this modification. This is because the function of the SLC Storage Tank, as well as the SLC system, are not adversely affected by the addition of a guardrail system and ladder cage on the tank. This modification is designed in accordance with codes and standards applicable to the original design. The guardrails and cage have been seismically designed to meet Seismic Category I condition which precludes them from being safety impact items. There is no adverse effect to the function or operation of either the SLC Storage Tank or system, nor is any system or component interface created. The modification will not degrade any radiological release path. Therefore, the proposed activity does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. This modification does not add to, eliminate, or alter the design basis or design basis function of the SLC system as described in the FSAR, Section 9.3.5, nor does it adversely impact any component interfacing with the SLC system. The addition of guardrails and a ladder cage on the tank top does not affect the function of the SLC system. No safety impact items are created by this modification since the guardrails and cage are seismically designed to withstand the effects of DBE and OBE earthquakes. Therefore, the proposed activity does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. A review of the system parameters of the SLC system, as presented in the Technical Specification bases in Section B.3.1.7, was made to determine if any margin of safety might be affected by the proposed activity. Such parameters as process flow, concentration of the borated solution, control rod positioning, completion times for required action, are not affected by the addition of a guardrail and ladder cage to the SLC Storage Tank, nor are any of the other parameters stated in the bases. Therefore, the proposed activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-045**

**CROSS REFERENCE: DCPs 95-3011 B and 95-3011 C, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This change includes the construction of an on site Independent Spent Fuel Storage Installation (ISFSI). This system is pre-licensed to the requirements of 10CFR72.

**SUMMARY:**

- I. No. The proposed change does not increase the probability of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR. Chapter 9 and 15 of the FSAR have been reviewed against the effects of the proposed change to substantiate this conclusion. The installation of the ISFSI is independent of all plant safety systems and has been determined to have no adverse effects on the safe operation of the SSES.
- II. No. With respect to the requirements of 10CFR50, the proposed change does not create a possibility for an accident or malfunction of a different type than any evaluated in the FSAR. The evaluation of the installation of the ISFSI including basemats, approach slabs, access roads, fencing, grading, horizontal storage modules and their associated Temperature Monitoring System has concluded that the ISFSI does not create the possibility of accidents or malfunctions of a different type than previously evaluated for SSES.
- III. No. The Technical Specifications and Technical Requirements Manuals do not apply to the installation of the ISFSI, therefore, the margins of safety defined in their bases are not reduced.

**SER NO: 01-046**

**CROSS REFERENCE: DCP 96-9048, Unit Common**

**DESCRIPTION OF CHANGE:**

This modification installs a biocide injection system consisting of a storage tank, pump skid consisting of three injection pumps, and piping which are contained by a berm within a new small building adjacent to the Emergency Service Water (ESW) Pumphouse. The injection piping will introduce a chemical biocide into the ESW and Residual Heat Removal (RHR) systems via connections to the ESW and Residual Heat Removal Service Water (RHRSW) pump discharge piping.

**SUMMARY:**

- I. No. FSAR Chapter 9.2.5, discussing the ESW system, Chapter 9.2.6, discussing the RHRSW system, Chapter 9.2.7, discussing Ultimate Heat Sink, Chapter 6, "Engineering Safety Features", and Chapter 15, "Accident Analysis" have been reviewed. There are no engineered safety features or accident scenarios that would be impacted by the actions taken per this modification. The actions taken by this modification will have no adverse implications on the operation and function of the ESW, RHRSW or the ultimate -heat sink as described in the FSAR. The overall reliability of the systems will be enhanced by the improved biological control. The placement of the injection equipment in the vicinity of the ESW pumphouse and the spray pond will have no adverse impacts on the integrity of either structure. The pumphouse is designed to withstand impacts from missiles larger and heavier than the injection system components and will not be affected by their movement during a seismic event or tornado. Based on the above, the new treatment will not increase the probability of occurrence of an accident previously evaluated in the SAR.
- II. No. This modification does not adversely affect any safety-related systems, nor does it change the design basis for the ESW system, the RHRSW system, nor the ESW pumphouse structure. All alterations proposed by this modification will be designed in accordance with all manufacturer's instructions and the ANSI, ACI, AISC, and ASME Codes, as applicable, to ensure their design and construction integrity. Therefore, this modification will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. None of the basis for the existing or improved Unit 1 or Unit 2 Technical Specifications will be adversely impacted by this modification. Therefore, the actions taken by this modification will not reduce any margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-047**

**CROSS REFERENCE: DCP 98-3014D, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on raceways A1P075, A1P105, C1P107, E1P005 and JB2068 in Fire Zones 1-61 within Fire Area R-1B.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zone 1-61. Calculation demonstrates that additional compensating factors permit the installation of one hour rated fire barriers provides an equivalent level of assurance as those requirements of 10 CFR 50 Appendix R, Section III.G. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zone 1-61.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. Acceptance of one hour fire barriers in Fire Zone 1-61 does not result in a change to the Technical Specifications. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-048**

**CROSS REFERENCE: DCP 95-018, Unit 1, 2, Common**

**DESCRIPTION OF CHANGE:**

This evaluation is for elimination of instrument and relay response time testing (RTT) for selected reactor protection system, isolation actuation instrumentation, and emergency core cooling system functions. This Evaluation also addresses relays that are part of isolation actuation instrumentation but had not previously been response time tested.

**SUMMARY:**

- I. No. The proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR. This Safety Evaluation confirms that GE Licensing Topical Report NEDO 32291 and its approving NRC Safety Evaluation are applicable to SSES. This Safety Evaluation also ensures that the provisos listed in the NRC Safety Evaluation are being met by SSES. Failure modes and effects analyses have determined that sluggish response of the affected components can be detected by other Technical Specification surveillances. A technician survey indicates that the majority can detect a sluggish response of a component in 5 seconds or less when performing these other tests. The probability of a five second delay occurring is extremely small due to the small number of failures detected during RTT, redundancy and diversity in the channels, and the fact that 5 seconds is much larger than the current assumed times of less than one second for instrument and relay response. A 5 second value is not required to be added as a plant licensing design basis assumption, per letter from the NRC. A review of a 5 second time delay of each of these functions against the Chapter 15 analyses, SAFER/GESTR analyses indicates that the limiting events for thermal margin and fuel, integrity are unaffected. As an added measure, PP&L has added 5 seconds to the Siemens LOCA fuels analyses and has considered it in the applicable offsite dose analysis. A review of the ATWS event, Station Blackout event, LOCA Time Line Development for Plant Voltage Studies, containment overpressurization analysis, and radiological dose evaluations concluded that a five second delay did not affect any of the assumptions in these analyses. The relays that were never response time tested were found to be bound by these analyses as well.
- II. No. The proposed action does not create the possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The probability of a function failing to meet its required response time is extremely small due to the other testing of the component, the reliability of the components, and the redundancy and diversity of the channels. A review of an extremely conservative value of an additional 5 second time delay was performed in GE Licensing Topical Report. A review of this 5 second time delay performed on the Chapter 15 analyses, Reloading Licensing Analyses and fuels analyses concludes that the existing analyses are unaffected. The 5 second value is not considered a plant licensing design basis assumption, per letter from the NRC. As an added measure, PP&L has added the 5 seconds to the Siemens Atrium™ -10 fuels analyses and has considered it in the applicable off site dose calculation.

- III. No. The proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification. The proposed changes do not affect the capability of the associated systems to perform their intended function within the allowed response times used as the basis for the plant safety analyses. As an added measure, PP&L has added the 5 seconds to the fuels analyses and considered it in the applicable off site dose calculation. PP&L's review of a 5 second delay of each function confirms that margin exists in the design basis for an entire function to exhibit a 5 second delay. The proposed change improves the margin of safety by reducing the time safety systems are unavailable, reducing safety system actuations, reducing shutdown risk, limiting radiation exposure to plant personnel, and eliminating the diversion of key personnel to conduct unnecessary testing. The addition of the relays that were never response time tested does not affect this conclusion.

**SER NO: 01-049**

**CROSS REFERENCE: NL-98-112, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This change involves a change of the wording in the Technical Specification Bases section B 3.6.1.5 to reflect a change in the method of calculating average drywell air temperature. This change also involves a change in the plant computer algorithm used to calculate average drywell air temperature.

**SUMMARY:**

- I. No. This proposal increases the accuracy in the determination of average drywell air temperature. By using additional data points, a more representative measurement of temperature in the drywell is gained. This change will not affect any safety related equipment or situations analyzed in the SAR. No equipment will be added as a result of this change or operated in any new manner. Sensor readings which are currently discarded will be factored into the calculation of the average temperature. The design basis of primary containment will be unchanged and no increase in drywell temperature will result from this change in calculational methods. Therefore, the change does not increase the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The change in the method of calculating average drywell air temperature does not affect the operation of any existing systems. The temperature measuring loop is not affected by this change. No change in actual drywell temperature will result, and no new failure modes are being introduced by this proposal. Therefore, this change does not create the possibility for an accident or malfunction of a different type than evaluated previously in the SAR.
- III. No. As discussed in the bases for TS 3.6.1.5, the worst case average drywell air temperature was assumed (based on operating experience) to be 135 degrees F. In the event of a Design Basis Accident (DBA), with an initial drywell average air temperature less than or equal to that limit, the resultant peak accident temperature is maintained below the drywell design temperature. As a result, the ability of primary containment to perform its design function is ensured. The proposed change will not allow average drywell temperature to increase above the LCO limit. It will instead increase the accuracy of the measurement. This proposal will not result in underestimating average drywell air temperature at any time. Therefore, this change will not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-050**

**CROSS REFERENCE: NL-98-078, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This change revises FSAR Section 11.5.2.1.10 to clarify the location and monitoring capabilities of the Service Water System Radiation Monitoring (SWRM).

**SUMMARY:**

1. No. The proposed action involves updating FSAR Section 11.5.2.1.10 to clearly identify the radiation monitoring capability and its location in the Service Water System (SWS) with respect to potential release paths. The SWS and its radiation monitor are not safety related and perform no safety function. Also, failure of SWS will not compromise any safety related system or component or prevent safe shutdown. This action does not involve any changes to the SWS or the radiation monitor design. Also, a review of FSAR Sections 6, 9, 11 and 15 and FSAR Chapter 15 calculations shows that neither the SWS or its radiation monitor impact any accident or malfunction of equipment important to safety previously evaluated in the SAR.
- II. No. The SWS and its radiation monitor are not safety related and perform no safety function. This action does not involve any changes to the SWS or the radiation monitor design. Also, a review of FSAR Sections 6 and 15 and FSAR Chapter 15 calculations shows that neither the SWS or the radiation monitor has any impact on the plant response to an accident or malfunction of equipment important to safety. Therefore, the proposed action will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The SWS and its radiation monitor are not safety related and perform no safety function. This action does not involve any changes to the SWS or the radiation monitor design. Table 3.3.7.10-1 of the Technical Specifications identifies the Service Water Discharge/Supplemental Decay Heat Removal Radiation Monitors as "Service Water System Effluent Line". The design basis for the SWS supports the current radiation monitor location as acceptable for monitoring potential release paths. Therefore, no changes to the Technical Specification are required for this proposed action.

**SER NO: 01-051**

**CROSS REFERENCE: No. NL-98-114, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This Evaluation addresses a proposed change to Technical Requirement 3.1.4 –Control Rod Scram Accumulators Instrumentation and Check Valve. The proposed change inserts a new condition B which provides time to restore an inoperable Rod Drive Control System (RDCS) or inoperable 4-rod display before accumulator operability tests are initiated.

**SUMMARY:**

- I. No. The proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as evaluated in the SAR. The proposed change modifies the actions to be taken for a loss of the Hydraulic Control Unit (HCU) accumulator alarm function caused by an inoperable RDCS or 4-rod display. Loss of the accumulator alarm function is not discussed in the SAR and does not affect operation of the accumulator itself. This determination was reached after review of Tech Specs, FSAR sections 3.1.2, 4.6.1.1, 7.7.1.2 and FSAR Questions and Answers.
- II. No. The proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The proposed procedural change is administrative in nature and does not entail physical change to plant systems, equipment or components. The equipment being impacted by this change is not assumed to be a precursor to any TS event and is not required to function to mitigate any Chapter 15 event. No new possibilities for accidents or malfunctions have been created. This determination was reached after review of Tech Specs, FSAR sections 3.1.2, 4.6.1.1, 7.7.1.2 and FSAR Questions and Answers.
- III. No. The proposed action does not impact the margin of safety as defined in the basis for any Technical Specification. The proposed action does not alter the operability acceptance limit for HCU Scram accumulator pressure of 940 psig. (Tech Spec Bases B 3.1.5 reviewed – Control Rod Scram Accumulators).

**SER NO: 01-052**

**CROSS REFERENCE: TRAR #2929, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to change the surveillance frequency for TRS 3.8.5.1 Degraded Voltage Protection Channel Check from 12 hours to 24 hours. This change will allow operator rounds for the "E" diesel generator building to be performed once per shift rather than twice per shift.

**SUMMARY:**

- I. No. The proposed action is to change the surveillance frequency for TRS 3.8.5.1 Degraded Voltage Protection Channel Check from 12 hours to 24 hours. The purpose of the channel check is to manually identify if any of the degraded voltage relays associated with the "E" Diesel Generator have either failed to perform their function or have failed and would not be capable of performing their function. Failure of these relays is automatically alarmed at the local diesel panel and re-flashed in the control room. The alarm function is unaffected by this change. Performing the channel check less frequently does not increase the probability of occurrence of a degraded voltage condition.

The degraded voltage logic and the design of the electrical distribution system is such that failure of a degraded voltage relay does not prevent adequate accident mitigation. A review of past operating data indicates that these relays have experienced an excellent operating history, with only one relay timer setting out of specification. Performance of the channel check would only detect failure of a degraded voltage relay after the failure has occurred. The channel check has never identified a failed relay. Therefore, the consequences of a degraded voltage relay failure have not increased.

TRM Bases Section B 3.8.5 was reviewed. It does not discuss the bases for the 12 hour frequency. The requirements for degraded voltage protection and the design of the system are discussed in SER Section 8.0 "Electrical Power Systems". Specifically, Section 8.4.4 "Adequacy of Station Electric Distribution System Voltages" states that the Technical Specifications shall include LCO's, surveillance requirements, trip setpoints, etc. The proposed action is consistent with this requirement. FSAR Section 8.0 "Electrical Power" was also reviewed, but there is no mention of surveillance requirements for degraded voltage instrumentation.

- II. No. The method of performing the channel Check is unaffected by this change. Also, the function of the degraded voltage relays remains unaffected by this change. The proposed action does not create the possibility for a different type of accident or malfunction.
- III. No. The Technical Specifications are not affected by this change. TRS 3.8.5.1 Degraded Voltage Protection Channel Check is a Technical Requirements Manual surveillance requirement. TRM Bases Section B 3.8.5 was reviewed and it does not discuss the bases for the 12 hour frequency. The function and design of the degraded voltage relays remains unaffected by the proposed action, therefore, there is no reduction in the margin of safety for the TRM requirement.

**SER NO: 01-053**

**CROSS REFERENCE: NL-99-005, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action adds the diesel generator 'E' 125 V DC battery nameplate and corrects the 125 V DC distribution panel fuse nameplate information to FSAR section 8.3.2.1.1.5a). The action also corrects the nameplate information found in FSAR section 8.3.2.1.1.5c) for the 24 Volt DC distribution panels main bus short circuit bracing rating and the molded case breaker interrupting rating,

**SUMMARY:**

- I. No. The proposed change revises the published ratings found in FSAR section 8.3.2.1.1.5 for the outlined components. The change reflects the as installed equipment and manufacturers ratings. The ratings reflect the components ability to function and sustain operation in the event of receiving unusually high fault current characteristics. Chapter 15 of the FSAR describes accidents initiated by the loss of offsite power, LOCA, and station blackout which in the event of these accidents requires the class 1E DC power system to be operable in order to maintain safe shutdown. Increasing the rating of the components increases the reliability and ability to function and therefore decreases the probability of an accident. Increasing the rating of the components does not degrade the performance of the DC system nor increase the probability of a malfunction.
- II. No. The proposed action does not create the possibility for an accident or malfunction of a different type from that previously evaluated in the SAR. The change identifies the capability for the components to sustain operation. The proposed action does not change the overall design and normal or abnormal operating strategies of the components. The increased component ratings decrease the possibility for an accident or malfunction to occur.
- III. No. Technical Specification 3.8.7 requires the diesel generator 'E' 125 VDC distribution subsystem to be operable. Per action 3.8.7D) if the diesel generator 'E' is NOT aligned, all of the associated Emergency Service Water valves are verified closed. Per action 3.8.7E) if the diesel generator 'E' IS aligned to the class 1E distribution system when the 125 VDC distribution becomes inoperable, the diesel generator is declared inoperable. Since the capability for the components to withstand an electrical fault is greater than that presently outlined in the FSAR, the proposed action does not reduce the margin of safety as defined in any Technical Specification. The 24 VDC system provides power to the intermediate range monitors, and other non safety related components. Per section 3.8.4 of the Technical Requirements Manual, it has been determined that the intermediate range monitors are a fail-safe design and therefore the 24 VDC power system does not have safety related system requirements. Still, the capability for the components to withstand an electrical fault is greater than that presently outlined in the FSAR, and the proposed action does not reduce any margin of safety.



**SER NO: 01-054**

**CROSS REFERENCE: NL-99-012, Units 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses secondary containment integrity in the event the leak tightness between ventilation zones becomes impaired. Installation of the appropriate Bypass(es) allows the continued operation of the Unit(s) by enveloping the impaired boundary within a tested and operable secondary containment boundary.

**SUMMARY:**

- I. No. The implementation of the Bypass(es) expands the normal volume of the secondary containment for a fuel handling accident or LOCA condition. The change does not alter the radiological or environmental conditions from the accident source term. Also, the function of the secondary containment to contain, dilute, and hold up fission products following a DBA or that may result from a fuel handling accident remains unchanged. All effluent from the secondary containment will continue to be treated through the Standby Gas Treatment System (SGTS). Releases from secondary containment to the Standby Gas Treatment System remain less than one secondary containment volume per day as defined within FSAR Section 6.2.3. Therefore, the proposed addition does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Secondary containment isolation of normal Reactor Building ventilation is the only safety function of the Reactor Building HVAC systems. The implementation of the Bypass(es) does not alter or change the signals that initiate a secondary containment isolation. The secondary containment structure has no safety function. The safety function of secondary containment is maintaining its leak tightness. FSAR Sections 9.4.2 and 6.2.3 already recognize the two zone and three zone secondary containment configurations created by this Bypass(es). Therefore, this action does not create the possibility of an accident of a different type than any previously evaluated in the SAR.
- III. No. The drawdown times and leakage rates for secondary containment are described within the Bases for Surveillance Requirement SR 3.6.4.1.4 and SR 3.6.4.1.5. Secondary containment remains operable provided a valid surveillance exists for the modified secondary containment configuration. A valid surveillance assures that the modified secondary containment volume treated by the SGTS system remains less than the drawdown times and leakage rates specified within SR 3.6.4.1.4 and SR 3.6.4.1.5. Therefore, implementation of this action does not reduce the margin of safety implied in the basis for TS 3.6.4.1 or any other Technical Specification.

**SER NO: 01-055**

**CROSS REFERENCE: NL-98-097, Unit 1**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 11 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 1 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 1A/Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit 1 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 1 Reactor Building, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 11 Appendix R lamps will not be available in areas 25 & 28 in the Unit 1 Reactor Building during a Bus 1A/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 1A/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit I Bus 1A/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities.  
  
Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-056**

**CROSS REFERENCE: NL-98-098, Unit 1**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 56 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit I Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 1B/Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit I Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 1 Reactor Building, Turbine Building and entrance to D/G Bays B & C will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 56 Appendix R lamps will not be available during a Bus 1B/LC/MCC maintenance outage in areas described above. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 1 B/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit 1 Bus 1B/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit I Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-057**

**CROSS REFERENCE: NL-98-099, Units 1, Common**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 39 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 1 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 1C Load Center/(LC)/Motor Control Center (MCC) maintenance work activity in Unit 1 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 1 Reactor Building and Turbine Building, Control Structure, and entrance to Unit 2 personnel access corridor at elevation 670, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 39 Appendix R lamps will not be available during a Bus 1C/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 1C/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit 1 Bus 1C/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 or Unit 2 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-058**

**CROSS REFERENCE: NL-98-100, Units 1 & Common**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 30 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 1 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 1D Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit 1 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 1 Reactor Building and Turbine Building, Control Structure, and entrance to D/G Bays A & D, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 30 Appendix R lamps will not be available during a Bus 1D/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 1D/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit 1 Bus 1D/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 or Unit 2 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-059**

**CROSS REFERENCE: NL-98-101, Unit 2**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 15 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 2 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 2A/Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit 2 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 2 Reactor and Turbine Buildings, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 15 Appendix R lamps will not be available during a Bus 2A/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 2A/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit 2 Bus 2A/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 or Unit 2 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-060**

**CROSS REFERENCE: NL-98-102, Unit 2**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 53 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 2 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 2A/Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit 2 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 2 Reactor and Turbine Buildings, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 53 Appendix R lamps will not be available during a Bus 2B/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 2B/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

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- II. No. The disconnection of Appendix R lamps during a Unit 2 Bus 2B/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 or Unit 2 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-061**

**CROSS REFERENCE: NL-98-103, Unit 2**

**DESCRIPTION OF CHANGE:**

This Evaluation will allow Maintenance to disconnect 15 Emergency Appendix R lamps from their individual battery sources to prevent a complete discharge of Appendix R batteries. The disconnections and reconnections of Appendix R lamps from their batteries will only be performed during Unit 2 Refuel and Inspection Outages when the unit is shutdown.

**SUMMARY:**

- I. No. During the performance of a 4 KV Bus 2D Load Center (LC)/Motor Control Center (MCC) maintenance work activity in Unit 2 Refuel & Inspection Outages, compensatory measures and administrative controls which strategically place ordinary flashlights with fresh alkaline batteries in the Unit 2 Reactor Building, will substitute as Appendix R lighting in the event of an emergency. A tailboard will be given to alert operations personnel that 15 Appendix R lamps will not be available during a Bus 2D/LC/MCC maintenance outage. Operations personnel will be alerted to use the flashlights made available in the event of an emergency. The affected system is described in FSAR Section 9.5.3, Lighting System. Because equivalent lighting is provided, the proposed actions to disconnect Appendix R lamps during a Bus 2D/LC/MCC maintenance outage, do not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The disconnection of Appendix R lamps during a Unit 2 Bus 2D/LC/MCC maintenance outage will prevent the Appendix R batteries from completely discharging. This action will extend Appendix R battery life. Since bus outages typically take from 16 to 24 hours to perform, allowing a battery to drain completely is not a good maintenance practice and requires unnecessary battery replacements during subsequent preventive maintenance activities. Disconnecting Appendix R lamps during bus outages will prevent challenging the Emergency Appendix R lighting system and extend the life of its batteries. In the event of a fire or any other emergency, the flashlights that are provided in readily identified staging areas will fulfill the requirement of providing substitute lighting. The disconnection of the Appendix R lamps and substitute lighting provided by the flashlights improves upon the previous condition in which Appendix R lights were lost after 12 to 14 hours without backup available lighting. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Appendix R Emergency lights are not addressed in the Unit 1 or Unit 2 Technical Specifications. However, as previously described, compensatory actions and administrative controls will be in place as a substitute for the loss of any Appendix R lamps. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-062**

**CROSS REFERENCE: NL-99-007, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses three aspects of the current Local Power Range Monitor (LPRM) replacement procedure:

1. Use of a multiple LPRM strongback to facilitate LPRM replacement.
2. The procedure to remove LPRM assemblies with stuck plungers.
3. Elimination of the spring reel tool.

**SUMMARY:**

- I. No. No change in the probability of occurrence or the consequences of an accident or malfunction previously evaluated in the SAR was identified after evaluation of the three changes.

The primary concern arising from use of the multiple LPRM strongback is that of dropping equipment onto irradiated fuel. The strongback was designed for the current application, has been proof tested, and is inspected prior to use. In addition, its use is controlled by approved maintenance procedures.

The worst case equipment handling accident that could result from use of this tool is that of dropping the fully loaded strongback. This load drop case is bounded by the analysis in FSAR Section 15.7.4, "Fuel and Equipment Handling Accidents". The fully loaded strongback weighs 850 lbs. and the analysis in FSAR 15.7.4 covers loads up to 1,100 lbs.

When removing LPRM assemblies with stuck plungers, the risk of breaking the LPRM assembly and introducing loose parts into the reactor vessel is the primary concern. Reasonable measures are taken to contain any loose parts to facilitate complete retrieval prior to reactor startup.

Elimination of the spring reel does not increase the potential for damaging LPRM assemblies during installation. The alternate procedure includes adequate safeguards to protect the LPRM assembly during installation. Water seal tubes are used in place of the spring reels to provide a temporary water seal boundary for the reactor coolant system during LPRM replacement.

- II. No. None of the three changes identified above creates the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.

Use of the multiple LPRM strongback creates the possibility for dropping a load onto irradiated fuel. Equipment handling, or load drop, accidents of this type are already evaluated in FSAR Section 15.7.4, "Fuel and Equipment Handling Accidents".

No generic evaluation of loose parts in the reactor vessel exists in the SAR. However, any work done in or over the reactor vessel has the potential for generating loose parts.

Therefore, this evolution is not unique in this regard. The safety impact of any unrecoverable loose parts in the reactor vessel is evaluated on a case-by-case basis prior to reactor startup.

The same risks exist for damaging an LPRM assembly during installation with or without the use of the spring reel.

- III. No. None of the three changes identified above reduces the margin of safety as defined in the basis for any Technical Specification. Requirements for Refueling Operations are addressed in Technical Specification 3.9, and Nuclear Instrumentation requirements, are addressed in Technical Specification 3.3. The tools used for LPRM replacement are not addressed in either of these Technical Specifications. Technical Requirements Manual Section 3.12.3, "Light Loads Requirements" identifies conditions for moving loads up to 1,000 lbs. over irradiated fuel. No changes are proposed to the TRO 3.12.3 requirements, and all loads addressed in this safety evaluation are less than 1,000 lbs.

**SER NO: 01-063**

**CROSS REFERENCE: DCP 97-3027A & B, Units N/A**

**DESCRIPTION OF CHANGE:**

The scope of this project is to replace a portion of the existing Security Microwave Detection system at 3 locations with collapsible E-field equipment and additional cameras that provide enhanced capabilities.

**SUMMARY:**

- I. No. The Security perimeter detection system and the Security Closed Circuit Television (CCTV) monitoring system do not directly or indirectly tie to any plant safety related system. Due to the independence of the Security perimeter detection system and the Security CCTV monitoring system from other plant systems and upon review of FSAR Chapters 6 and 15 and the Physical Security Plan (PSP) it is concluded that these modifications do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated.
- II. No. The Security perimeter detection system and the Security CCTV monitoring system are surveillance subsystems of the Susquehanna Security Computer System and provide continuous detection and observation capabilities of the protected area barriers. Whenever an outage or other occurrence which renders the Security perimeter detection system and the Security CCTV monitoring system or portions of the systems ineffective, including the times during the implementation of these modifications, sufficient members of the security force will be dispatched to conduct an assessment of the affected areas. These modifications will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The plant security system is not specifically discussed in any Technical Specification. The PSP will be revised to capture the changes being made by these modifications. Replacement of the existing Microwave Detection equipment with collapsible E-Field equipment and additional cameras will provide the Security staff with enhanced tools to perform their required functions. Therefore, these modifications both during and after implementation do not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-064**

**CROSS REFERENCE: NL-98-031, Revision 1, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation is being written to cover Local Range Power Monitor (LPRM) under Vessel replacement activities (i.e., the use of LPRM seal drain tools). Revision 1 of this evaluation eliminates the restriction on the number of LPRMs that can be removed from the Reactor vessel (i.e., the number of LPRMs removed can be equivalent to the number of replacement tools installed).

**SUMMARY:**

- I. No. Revision 1 of this evaluation addresses the current LPRM replacement tool design and installation, without placing a restriction on the number of LPRMs removed from the Reactor Vessel (i.e., the number of LPRMs removed can be equivalent to the number of replacement tools installed).

The original LPRM replacement tools were manufactured using the guidelines in GE SIL 97. The current tool design uses the same guidelines, but is manufactured using schedule 80 instead of schedule 40 piping. In addition, the current tool is hydrostatically tested and seismically qualified, thus maintaining Vessel/Cavity water level within the range required by Technical Specifications for refueling operations. Since Vessel/Cavity inventory will be maintained, draining through seal drain tools is bounded by the accidents analyzed in Chapter 15. Therefore, the proposed action does not increase the probability of occurrence or the consequences loss Reactor Vessel inventory.

- II. No. Calculation assures that leakage as a result of a common mode failure of the currently designed LPRM seal drain tools will not occur from a seismic event. The potential for the failure of a single drain tool where the LPRM is removed was also evaluated, even though it was determined to be highly unlikely with no clear mechanism to cause the failure. A complete failure of a drain tool would result in a 1.5 inch diameter hole, however, adequate make-up capabilities are available to offset or minimize this leakage via the normal make-up systems. Additional systems would also be utilized as necessary in order to ensure that requirements for Spent Fuel Pool Level are maintained. These water sources will provide ample time for actions to isolate the leak via use of the In-Core Guide Tube Seal or the installation of a drain tube seal.

Neither Inadvertent draining through an LPRM Seal tube or a failure of a single drain tube is considered an Operation with Potential for Draining Reactor Vessel/Cavity (OPDRV/C). Additionally, in the event that an additional drain valve is inadvertently opened, it will be readily recognized so that it can be immediately recognized, and the leakage is well within the capabilities of systems available during refueling operations. Therefore, Reactor Vessel/Cavity water level will be maintained within the range required by Technical Specifications for refueling operations. Since Vessel/Cavity inventory will be maintained, draining through seal drain tools is bounded by the accidents analyzed in Chapter 15. Therefore, proposed LPRM replacement activities do

not create the possibility for an accident or malfunction of a type not previously evaluated.

- III. No. The LPRM replacement activities are not OPDRV/C nor are they core alterations as defined in Technical Specification 1.1. However, the potential for the failure of a single drain tool where the LPRM is removed was evaluated. Adequate make-up capabilities are available to offset this leakage via the normal make-up systems. Additional systems could also be utilized as necessary in order to ensure that requirements for Spent Fuel Pool Level are maintained. These water sources provide ample time for actions to isolate the leak via use of the In-Core Guide Tube Seal or the installation of a drain tube seal. At this leakage rate and no make-up, it would take approximately 2 hours before the Technical Specification 3.7.7 and 3.9.6 minimum water level limits of 22 feet above irradiated fuel and the reactor flange respectively, would be reached (Note: These limits are only applicable if fuel is being handled at the time of the leak). This provides ample time to place make-up systems into operation. Therefore, no Technical Specification basis is affected by the proposed activities.

**SER NO: 01-065**

**CROSS REFERENCE: NL-99-014, Unit Common**

**DESCRIPTION OF CHANGE:**

This change revises the value of peak heating requirement from 180,000 Btu/hr to 150,000 Btu/hr, heat loss for the Standby Gas Treatment System (SGTS) housing from 55,400 Btu/hr to 36,000 Btu/hr and the resulting total value from 235,400 Btu/hr to 186,000 Btu/hr.

**SUMMARY:**

- I. No. The change updates the heat load values shown in section 6.5.1.1.2 of the FSAR to be consistent with the maximum entering air temperature of 125°F shown in section 6.5.1.1.1. The size of the heaters is not changed. Under the proposed change heat load values are reduced. This would result in heating of the air stream to a higher degree and would reduce the resulting relative humidity to a level much lower than 70 percent. Charcoal filters in the SGTS filter bank would be able to perform at peak efficiency. Therefore, this change does not impact the performance of the SGTS to mitigate the consequence of design basis accidents discussed in the SAR. FSAR Section 15.0 was reviewed. The change does not increase the probability of occurrence of an accident as previously evaluated in the SAR. This change does not increase the consequences of an accident as previously evaluated in the SAR. This change does not increase the probability of occurrence of a malfunction of equipment important to safety as previously evaluated in the SAR. Further, it does not increase the consequences of a malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The change updates the heat load values shown in section 6.5.1.1.2 of the FSAR to be consistent with the entering air temperature of 125°F. shown in section 6.5.1.1.1. The size of the heaters is not changed. Under the proposed change heat load values are reduced. This change does not result in changes to the operation of SGTS. Therefore, it does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. During post Design Basis Accident (DBA) conditions, SGTS system is used to filter the effluent from the plant in order to limit the radiation dose to the public. 10CFR100 identify the limits for the radion dose to the public during DBA conditions. The values shown in 10CFR 100 are 25 rem for whole body and 300 rem to the thyroid from iodine. SER (NUREG0776 dated April 1981) Table 15.1 identifies these values to be 219.9 for thyroid and 6.41 for the whole body. Technical Specification Bases B.3.3.6.2, B.3.6.4.1 and B.3.6.4.3 were reviewed. As discussed in sections above, the change does not impact the ability of the charcoal filters in the SGTS filter bank to perform at peak efficiency. Therefore, this change has no impact on the radiation dose to the public. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any technical specification.

**SER NO: 01-066**

**CROSS REFERENCE: NL-98-028, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This change: (1) allows the vacuum degasifier to be placed in service for testing, troubleshooting and monitoring with the exhaust filter inoperable; and (2) suspends operation of the vacuum degasifier to control oxygen in condensate for up to twenty seven months (i.e., from September 1997 until December 1999).

**SUMMARY:**

- I. No. The FSAR was reviewed to identify sections related to the vacuum degasifier. The degasifier is discussed relative to deaerating condensate for the Condensate and Refueling Water Storage Tanks in Section 9.2.10.2. The degasifier and its ventilation filter system are mentioned in Sections 9.4.3.1 and 9.4.3.2, which are concerned with radwaste building HVAC. The Safety Evaluation Report, NUREG 0776 and its Supplements, were reviewed. There was no specific reference to the vacuum degasifier, although reference is made to further provisions taken by Susquehanna to reduce the potential for Inter Granular Stress Corrosion Cracking (IGSCC). Failure to operate the vacuum degasifier for oxygen control does not appreciably increase the probability of failure due to IGSCC. The vacuum degasifier is not used to mitigate the consequences of any design basis accident. FSAR Section 15.7, Radioactive Releases from a System or Component, was reviewed. The vacuum degasifier and its exhaust filter system are not evaluated. The vacuum degasifier exhaust filter system is only used to reduce particulate and iodine activity in gases extracted from condensate by the vacuum degasifier. Since the vacuum degasifier is not used to mitigate the consequences of any design basis accident, neither is its exhaust filter system. Therefore, the proposed actions do not increase the probability of occurrence of the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the FSAR.
- II. No. The vacuum degasifier system performs no safety functions. The degasifier exhaust filter skid is not used to mitigate the consequences of an accident. The vacuum degasifier will be operated under administrative controls without the exhaust filter for testing purposes. Activity releases as a consequence of such operations are expected to be well below levels that would require operation of the degasifier ventilation treatment system under TS 3.11.2.5. Therefore, there is no possibility of an accident or malfunction of a different type than any evaluated in the SAR.
- III. No. Technical Specification 3.11.2.5, "Ventilation Exhaust Treatment System," and its BASES were reviewed as applicable to the proposed change. These sections require that the appropriate portions of the ventilation exhaust treatment system be operable and be used as appropriate to reduce radioactive materials in gaseous waste prior to discharge. The vacuum degasifier exhaust filter system is a ventilation exhaust treatment system that is governed by the Technical Specification. The vacuum degasifier without an operable exhaust filter will be operated under administrative controls and within the bounds of the Technical Specification Action Statements for



testing purposes. Activity releases as a consequence of such operations are expected to be well below levels that would require operation of the degasifier ventilation treatment system under TS 3.11.2.5. Therefore, the proposed actions do not reduce the margin of safety as defined in the BASES.

**SER NO: 01-067**

**CROSS REFERENCE: NL-99-021, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

This evaluation proposes to use the REM\*TAKE-2 latch tool to uncouple the control blade from the control rod drive mechanism during refueling and inspection outages, thereby allowing the movement and/or replacement of the control blade.

**SUMMARY:**

- I. No. Potential events relative to the use of a tool to uncouple the control blade from the control rod drive mechanism have been evaluated previously and the tool and procedures supported by this evaluation perform no new functions and perform their intended function in a manner much the same as the tool supported by the previous Evaluation. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
2. No. The potential events have been either analyzed in the FSAR, the design documents (NEDE-20944) or in a previous evaluation. Therefore, the use of this tool to uncouple the control blade from the control rod drive mechanism does not create a possibility for an accident or malfunction of a different type than previously analyzed.
3. No. Refueling operations are discussed in the Technical Specifications, however, there is no direct mention of any tools other than the refueling bridge, main and auxiliary hoists exists in the Technical Specifications. Control blade replacement is also discussed but only with respect to requirements for the number of control rods that can be out of core locations under any circumstances. In addition, the required amount of water shielding necessary for control rods are in the process of being moved and the load requirements for the auxiliary hoist are discussed. Therefore, the use of this tool for unlatching control blades from the control rod drive mechanism does not change the margin of safety as defined in the Technical Specifications because the use of the tool is within the prescribed guidelines. Thus, there is no change in margin of safety and no Technical Specification change is required to allow the use of this tool.

**SER NO: 01-068**

**CROSS REFERENCE: NL-99-022, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

It is proposed to use the REM\*TAKE-2 grapple for the purpose of transporting the control blade and the fuel support piece between the reactor vessel and the fuel pool during refueling and inspection outages.

**SUMMARY:**

- I. No. Potential consequences have been evaluated into three categories: (1) loose or lost parts could be introduced into the reactor vessel from the tool, (2) the potential for dropping the combined grapple, fuel support piece and control blade onto a fuel assembly and (3) potential effects of tool use on associated material in the reactor vessel and fuel pool. Each of these items has been evaluated as acceptable. Therefore, use of this tool does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The potential for accidents and/or malfunctions of a different type are discussed above, and these events have been evaluated as acceptable in previous evaluations. This tool is very similar in design and function to the tool previously analyzed, and has actually been used in prior refueling and inspection outages at SSES. The tool has previously functioned safely and with only minor operating problems, and the vendor has implemented changes to correct these issues.

Since the tool evaluated here is very similar to the tool previously evaluated and the events discussed are similar as above, the proposed action does not create the possibility of an event or malfunction different than any previously analyzed in the SAR.

- III. No. Refueling operations are discussed in the Technical Specifications, however, no direct mention of any tools other than the refueling bridge, main and auxiliary hoists exists in the Technical Specifications. Control blade replacement is also discussed but only with respect to requirements for the number of control rods that can be out of core locations under any circumstances. In addition, the required amount of water shielding necessary for control rods are in process of being moved and the load requirements for the auxiliary hoist are discussed. Therefore, the use of this tool for grappling and moving control rods and control blades does not change the margin of safety as defined in the Technical Specifications because the use of the tool is within the prescribed guidelines.

**SER NO: 01-069**

**CROSS REFERENCE: NL-99-011, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is the reconfiguration of the Unit 2 reactor core loading to support Cycle 10 operation. This action changes the core design and the applicable analysis which supports Unit 2 Cycle 10 operation. This evaluation supports the Unit 2 Cycle 10 Core Operating Limits Report, core loading, and operation of the reload.

**SUMMARY**

- I. No. The applicable sections of the FSAR related to the licensing events that were evaluated for Unit 2 included Chapters 4, 5, 6, 9, and 15 of the FSAR.

With the exception of core stability, for which changes in the core loading itself can influence the probability of occurrence of core instabilities, the core loading will not affect the failure mode of any plant system or component, nor will it affect the probability of occurrence of any transient or accident initiating event.

The NRC has approved the application of the Interim Correction Actions (ICAs contained in NRC Bulletin 88-07 Supplement 1) to Siemens Power Corp. (SPC) 9x9-2 fuel. PP&L has implemented these ICAs as Technical Specifications, and the use of these Technical Specifications will assure the same low probability of core instabilities as with previous cores.

SPC performed stability calculations for both U2C8 (18-month cycle/9x9-2 fuel plus four LUAs) as well as U2C9, U1C11 (24-month cycle / 9x9-2 and ATRIUM™-10 fuel plus four LUAs), and U2C10 (24-month cycle / 9x9-2 and ATRIUM™-10 fuel plus four LUAs). These calculations demonstrated that U2C8, U2C9, U1C11, and U2C10 exhibit similar stability characteristics. Thus, the currently implemented stability guidelines which PP&L committed to the NRC to utilize are also applicable to U2C10. Therefore, there is no increase in either the probability or consequences of an instability event as a result of the U2C10 core loading.

The FSAR Chapter 15 potentially limiting anticipated operational occurrences were evaluated using methodology which has been NRC approved (and included in the Technical Specifications). The Minimum Critical Power Ratio (MCPR) Safety Limit will not be violated for these events. In addition, these events were examined to assure that the transient Linear Heat Generation Rate (LHGR) limit was not violated. Therefore, no fuel failures or dose consequences are expected from these events.

Design Basis Accidents were also evaluated. The proposed changes to the core loading do not cause the consequences of these accidents to exceed criteria previously evaluated and approved by the NRC. Since the GE Power Uprate LOCA analyses of

SPC 9x9-2 fuel and the SPC LOCA analyses of ATRIUM™-10 fuel are both applicable to U2C10, all LOCA results are within the 10CFR50.46 criteria.

The ASME overpressure event was analyzed and showed approximately the same margin to the acceptance criterion as in previous cycles.

The impact of the U2C10 core loading on Anticipated Transient Without Scram (ATWS) was evaluated. The NRC acceptance criteria for ATWS evaluations concern peak vessel pressure, suppression pool temperature, and Peak Cladding Temperature (PCT). The results met all three acceptance criteria.

In addition, analyses and evaluations were performed to address the impact of the 24 month cycle, decay heat, the radioactive source terms, and the impact of ATRIUM™-10 on: Heavy Loads (movement of heavy loads over irradiated fuel), Post-LOCA hydrogen generation (hydrogen recombiners), Equipment Qualification (In-Containment Emergency Equipment), LOCA electrical time lines (electrical supply), Suppression Pool Heat Load, Spray Pond Analysis, Spent Fuel Pool Boiloff Analysis, Public and Occupational Dose, ATWS, Recirculation Pump Performance, LOCA offsite doses, the Emergency Plan, and the Emergency Operating Procedures. The results of these analyses demonstrate that the applicable acceptance criteria for these evaluations are met for U2C10.

Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. The applicable sections of the FSAR which are affected by the change are Chapters 4, 5, 6, 9, and 15.

The Unit 2 Cycle 10 core loading does not directly or indirectly affect any plant system, equipment, or component (other than the core itself), and therefore does not affect the failure modes of any of these. The U2C10 COLR establishes the correct operating limits for the U2C10 core, thus assuring that applicable acceptance criteria will be met. Therefore, these changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The applicable Technical Specification Sections include 2.1, 3.1, 3.2, 3.4.1, and 5.6.5.

The U2C10 core loading and associated Maximum Average Planar Linear Heat Generation Rate (MAPLHGR), LHGR, and MCPR operating limits do not jeopardize or degrade the function or operation of any plant system or component governed by Technical Specifications. The U2C10 analysis provides U2C10 operating limits for the SPC ATRIUM™-10, 9x9-2 assemblies and the GE-12 LUAs that will maintain an

equivalent margin of safety as currently defined in the basis of the applicable Technical Specification sections.

Therefore, this change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-070**

**CROSS REFERENCE: NL-99-017, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

A section was added to procedures to address the containment isolation valves that are in penetrations X-9A and X-9B and identify how to account for leakage through the penetrations when calculating the overall Appendix J and Secondary Containment Bypass Leakage (SCBL) leak rates.

**SUMMARY:**

- I. No. FSAR Sections 6.2.6 and 6.2.3 cover primary containment leakage (Appendix J) and SCBL post accident respectively. FSAR Section 15 dose analyses use the primary and secondary containment design leak rates. By indicating how each of the 3 or 4 containment Isolation valves on each line are factored into the overall Appendix J and SCBL leak rate calculations, there is not an increase in the probability of occurrence or the consequences of an accident or malfunction of equipment Important to safety.
- II. No. FSAR Sections 6.2.6 and 6.2.3 cover primary containment leakage (Appendix J) and SCBL post accident, respectively. FSAR Section 15 dose analyses use the primary and secondary containment design leak rates. The change in the procedure only involves primary and secondary containment post accident leak rates and therefore, the proposed action does not create a possibility for an accident or malfunction of a different type.
- III. No. The procedure requires that primary and secondary containment leak rates be maintained below the Tech Spec limits of 0.6 La and 9 ecfh, respectively. The change to the procedure indicates which 2 valves per line in penetrations X-9A and X-98 should be factored into the calculations when comparing to 0.6 La and 9 SCFH. Hence, there is no change in the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-071**

**CROSS REFERENCE: DCP 98-3024A/B, Unit 1**

**DESCRIPTION OF CHANGE:**

The scope of the modification includes the replacement of the actuator motor for valves HV-151F016A/B.

**SUMMARY:**

- I. No. Valves HV—151F016A/B are the Drywell Spray Header Containment Isolation valves. The valves are located outside containment. The applicable accident previously evaluated in the SAR is one that involves a pipe break of the Residual Heat Removal (RHR) line. The modification meets all applicable design, material and construction requirements and does not change the performance or operation of the RHR System. It is therefore concluded that the modification will not increase the probability of occurrence of an accident as previously evaluated in the SAR.

The valves' active safety function is to close following a Containment isolation signal. The valves operate (close) to limit the consequences of accidents that initiate a Containment isolation signal. The replacement of the actuator motors will not increase the consequences of any accident requiring Containment isolation. In fact, the motor replacements assure that sufficient torque is available under design basis conditions to close the valves. Since the valves serve a mitigating function following an accident and the modification provides greater assurance of valve closure, it is concluded that the modification does not increase the consequences of an accident previously evaluated in the SAR. FSAR Sections 3.9.3.2b.2, 5.4.7, 6.2.4, and Chapter 15 have been reviewed in making this determination.

- II. No. The modification to replace the actuator motor, thermal overload heaters, and reset the magnetic only breakers will not create any new accidents or malfunctions not previously evaluated in the SAR. The failure mode of the valve (fail as-is) will not be altered by the replacement of the motor. The active safety function of the valve, which is to close following a Containment isolation signal, is not involved with any credible accident initiators. The functional performance of the valve will not be adversely impacted, since all design requirements have been satisfied. The new thermal overload heaters are identical in design and manufacture to those being replaced except for their larger capacity. FSAR Sections 3.9.3.2b.2, 5.4.7, 6.2.1.1.4, 6.2.4, 8.3.1, and Chapter 15 have been reviewed in making this determination.
- III. No. The modification will not change the margin of safety established to prevent the release of radioactive materials from Containment. The integrity of the valve pressure boundary and the valve seat leakage rate will not be affected by the replacement motor. The modification will not alter any of the valve actuation circuitry. The valve stroke time will remain within the specified time required to maintain valve operability. The new breaker magnetic trip setting specified for the modification is in accordance with current design standards and will not alter the ability to perform periodic testing of



representative samples to confirm breaker reliability. Since the modification will not adversely impact Containment isolation capability and overcurrent protection of the valve and its power supply cable, the margin of safety as defined in the Technical Specifications Bases will not be reduced. The Technical Specifications Bases Sections B3.6.1.3, "Primary Containment Isolation Valves", B3.6.1.1, "Primary Containment", B3.3.6.1, "Primary Containment Isolation Instrumentation", and Technical Requirements Manual section 3.8.2.1, "MOV Thermal Overload Protection – Continuous" were reviewed in making this determination.

**SER NO: 01-072**

**CROSS REFERENCE: DCP 99-9009, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification will replace the existing SS-5G solid state trip units with SS-4G devices for the following Non-1 E 480 Volt Load Center Circuit Breakers as a result of a 10CFR Part 21 electrical component deficiency identified by Asea Brown Boveri (ABB):

2B100-022	2B130-023	2B250-024
2B100-023	2B150-022	2B260-024
2B110-022	2B150-023	
2B130-021	2B250-023	

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. The proposed modification maintains the design basis operation of the above mentioned load centers. There is no increase in the probability of an accident, since load center function remains the same. There are no new safety concerns or conditions not already evaluated or discussed in Sections 6 and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function, because no electrical bus or logic interconnection with any safety-related equipment occurs. Since the load center circuit breaker basic function does not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. The AC power supplies necessary to meet Technical Specification requirements are listed in Technical Specification Table 3.8.7-1. 480 VAC load centers 2B100, 2B110, 2B130, 2B150, 2B250 and 2B260 are not listed as necessary, nor are they required for operation or shutdown of the unit or for mitigation of the consequences of an accident. In addition, no electrical bus or control logic connection to any Technical Specification related power supply is impacted. Therefore, the margin of safety is not reduced.

**SER NO: 01-073**

**CROSS REFERENCE: 98-3025A/B, Unit 1**

**DESCRIPTION OF CHANGE:**

HV-151F027A and HV-151F027B are outboard isolation valves for the Residual Heat Removal (RHR) Suppression Pool Spray Header. A modification will be implemented to replace the worm, worm gear, motor pinion, and worm shaft gear.

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The gearset replacement will not affect the pressure retaining boundary of the valves or adversely impact the valves' active safety functions, their hydraulic characteristics, or their seat leakage characteristics.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effects of the modification are to increase allowable torque switch settings and to decrease the stroke time. Neither of these effects create the possibility of a new accident or malfunction. The active safety functions, which are to open to permit Suppression Pool Spray operation and to close in order to terminate suppression chamber spray to prevent excessive low containment pressure, or to permit other RHR operating modes, are not adversely impacted by the modification.
- III. No. The modification will not reduce the margin of safety as defined in the basis for any Technical Specifications. The integrity of the valve pressure boundary, hydraulic characteristics, and valve seat leakage rate will not be affected by the actuator gearset replacement.

**SER NO: 01-074**

**CROSS REFERENCE: DCP 99-9901, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

The scope of the modification includes the replacement of all the Residual Heat Removal (RHR) pump suction heads in RHR Pumps 1P202A/B/C/D and 2P202A/B/C/D, with an upgraded shaft sleeve design and a six rib (up from four) suction head design.

**SUMMARY**

- I. No. This modification meets all applicable design, material, and construction requirements and does not change the performance or operation of the RHR system. Since the replacement parts do not make up the RHR system pressure boundary, the material specifications presented in FSAR Section 6.1 and Tables 6.1-1a/6.1-1b are not applicable. Therefore, the modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The only change made by these modifications is to reduce the probability of a RHR pump suction head/shaft sleeve failure by improvements over original design. Hence the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. This modification affects only RHR Pumps 1P202A/B/C/D, 2P202A/B/C/D, and the spare pump element in the warehouse. Analysis concludes that the proposed modification has no adverse affect on the ability of the RHR pumps to perform their safety related function. Therefore, the margin of safety as defined in the basis of Technical Specification Sections 3.4.8, 3.4.9, 3.5, 3.6.2.3, 3.6.2.4, 3.9.7, and 3.9.8 will NOT be affected by any modified RHR pump or combination of pumps.

FSAR Sections 3.9.3, 5.4.7, 6.1, 6.2, 6.3, and 15 have been reviewed in arriving at these conclusions.

**SER NO: 01-075**

**CROSS REFERENCE: NL-99-026, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed changes include revising the value for the vacuum maintained by the steam packing exhauster to agree with the approved operating basis and make various changes to FSAR Table 3.2-1 for the turbine gland sealing system. The changes to the Table include adding the steam seal evaporator drain tank and revising the shown construction codes for the steam packing exhauster and the sealing steam piping.,

**SUMMARY:**

- I. No. This evaluation updates FSAR Section 10.4.3 and Table 3.2-1 for the Seal Steam System. The proposed changes to FSAR Section 10.4.3 and FSAR Table 3.2-1 do not create or result in any physical change to the plant equipment, procedures or training. Each of the changes incorporates the existing operating or design bases which are presently shown incorrectly in the FSAR. As shown in FSAR Section 10.4.3.1, the steam seal system has no safety-related functions. These proposed changes support the requirement of the current licensing basis. Therefore the proposed changes to the FSAR do not increase the probability or consequences of an accident, or malfunction of equipment important to safety previously evaluated in the SAR.
- II. No. The proposed changes do not create or result in any physical changes to the plant equipment, procedures or training. These changes incorporate the approved existing operating/design bases. Therefore, the proposed changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The steam sealing system is not addressed in any of the Technical Specifications. The proposed changes incorporate the approved existing operating/design bases and do not result in any changes to the existing plant equipment, procedures or training. As a result, the proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification. Technical Specification Sections 5.5, 5.6 and 5.7 were reviewed.

**SER NO: 01-076**

**CROSS REFERENCE: TRAR 2948, Unit N/A**

**DESCRIPTION OF CHANGE:**

TRO 3.0.4: Revise current statement: "Entry into a MODE or other specified condition shall not be made when the conditions for the TRO are not met to read: "When a TRO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time.

**SUMMARY:**

- I. No. The current TRO 3.0.4 prohibits entry into a MODE or other specified condition in the affected TRO Applicability, without an exception for entry into applicable ACTIONS that permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time.

The proposed condition restores a provision to TRO 3.0.4 that existed in the previous version of the Technical Specifications, and exists in the current Tech Specs LCO 3.0.4. This provision is only applicable to those TRO conditions where the Required Actions define compensatory measures that, because a change in MODE or condition to exit the Requirement Applicability is not required, is considered to be equivalent to the level of protection afforded by the TRO Requirement. This change does not change the facility as it is presently described in the design or licensing bases, but does change the circumstances under which the Required Actions may be employed. Since the change does not create a new operating condition, and establishes a practice that is consistent with the intent of Technical Specification 3.0.4, it does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. The proposed condition restores a provision to TRO 3.0.4 that existed in the previous version of the Technical Specifications, and exists in the current Tech Specs LCO 3.0.4. This provision is only applicable to those TRO conditions where the Required Actions define compensatory measures that, because a change in MODE or condition to exit the Requirement Applicability is not required, is considered to be equivalent to the level of protection afforded by the TRO Requirement. This change does not change the facility as it is presently described in the design or licensing bases but does change the circumstances under which the Required Actions may be employed. Since the change does not create a new operating condition, and establishes a practice that is consistent with the intent of Technical Specification 3.0.4, it does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No The proposed condition restores a provision to TRO 3.0.4 that existed in the previous version of the Technical Specifications, and exists in the current Tech Specs LCO 3.0.4. This provision is only applicable to those TRO conditions where the Required Actions define a corrective action that, because it is allowed to remain in that condition without time limit, is considered to be equivalent to the level of protection afforded by the TRO Requirement. This change does not change the facility as it is presently described in the design or licensing bases, but does change the circumstances under which the Required Actions may be employed. Any margin of safety associated with the applicable TRO Requirements is maintained because this change only allows conditions to exist that are already allowed in the present Requirements (the difference being that the current Requirements do not mandate that the applicable MODE or condition be exited; this change permits it to be entered). Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specifications.

**SER NO: 01-077**

**CROSS REFERENCE: NL-99-027, Unit 1, 2**

**DESCRIPTION OF CHANGE:**

Change FSAR Table 3.9.17 to include a part number for a stainless steel heater for the jacket water system.

**SUMMARY:**

- I. The original heater design used a copper sheath over the elements. The replacement has stainless steel. It is functionally identical and has seismic qualification to be used in this application. Sections 3.9.2.2b, 8.3.1 and 9.5.5 of the FSAR were reviewed. The jacket water heater is designed to maintain the Diesel Generator (DG) temperature during standby conditions per the recommendations of the manufacturer. It is also designed to maintain its configuration during and following a design basis earthquake. These design criteria will be maintained with the new heater. Based on the analysis, there is no increase in the probability or consequences of an accident or malfunction as defined in the SAR.
- II. No. There is no possibility for the creation of an accident or malfunction of a different type. The heater and the jacket water system will function exactly as before. The jacket water keep warm system is provided to assure the engine can start within 10 seconds.
- III. No. There will be no reduction in the margin of safety as defined in the basis for the technical specifications. The new heater is electrically equivalent in rating to the original heater. Technical specification 3.8.1 requires the DG to start from standby conditions which is defined in the bases for this section.



**SER NO: 01-078**

**CROSS REFERENCE: DCP 98-3013C, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Areas R-2A, R-2B, R-2A-2B and R-2D.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 2-5A-N, 2-5A-S, 2-5A-W, 2-5B or 2-5C. Calculation demonstrates that additional compensating factors permit the installation of one hour rated fire barriers provides an equivalent level of assurance as those requirements of 10 CFR 50 Appendix R, Section III.G. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zone 2-5C.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. Acceptance of one hour fire barriers in Fire Zone 2-5C as analyzed by calculation does not result in a change to the Technical Specifications. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-079**

**CROSS REFERENCE: DCP 99-9010, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action schematically provides a new permissive from the valve limit switch in series with the torque permissive for motor operated valves (MOVs) HV-22711A/B/C and HV-22712 A/B/C.

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. In reviewing postulated system failures, including Loss of Feedwater Flow (reference FSAR 15.2.7), the proposed action has no impact to the existing analysis since scheme logic and operational features remains the same. There are no new safety concerns or conditions not already evaluated or discussed in Sections 6 and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II.. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. Since this basic function will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. The proposed modification will not change the function of the safety related power distribution system as delegated by Technical Specification Bases B3.8.1, B3.8.2, B3.8.4, B3.8.5, B3.8.7, and B3.8.8 since no Technical Specification related power supplies are affected and no load current changes occur. The proposed action does not include any scheme changes that interconnect with feedwater flow, RFPT trip, and main turbine trip logic; therefore, no degradation to any instrumentation/alarms associated with Technical Specification Section B3.3.2.2 can occur. HV-22711A/B/C and HV-22712A/B/C are not listed as necessary, nor are they required for operation or shutdown of the unit or for mitigation of the consequences of an accident. In addition, no electrical bus or control logic connection to any Technical Specification related power supply is impacted. Therefore, the margin of safety is not reduced.

**SER NO: 01-080**

**CROSS REFERENCE: NL-99-015, Unit 1 & 2**

**DESCRIPTION OF CHANGE:**

This evaluation provides corrected information on the currently installed Nuclear Energy Services (NES) Control Rod Drive Handling System (CRDHS) for FSAR Sections 3.2 and 9.1.4.2.9.

**SUMMARY:**

- I. No. There are no safety functions that are performed by the NES Control Rod Drive Handling System or the previously installed CRDHS. Note that the CRDHS was designed as non-safety related equipment in accordance with NES, Inc. Quality Assurance requirements and standard industry codes. Therefore, there was no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. As denoted in FSAR Section 9.1.2.3.9, "Failure of any under reactor vessel servicing equipment poses no hazard in excess of the effects of accidents analyzed in Chapter 15". As this change-out involved replacing the original CRDHS with a new model which performed the exact same function, no new probabilities or consequences were introduced that would affect previously evaluated accidents. Therefore, the change-out did not create a possibility for an accident or malfunction of a different type than evaluated previously in the SAR.
- III.. No. There are no safety functions that are performed by the NES Control Rod Drive Handling System or the previously installed CRDHS and the system is not covered by plant Technical Specifications. Therefore, the change-out did not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-081**

**CROSS REFERENCE: NL-99-024, Unit 2**

**DESCRIPTION OF CHANGE:**

Evaluation of TP-206-001 that provides the necessary guidance and work group coordination to safely de-energize Division I ESS Motor Control Centers (MCC's) 2B216 and 2B217 to replace solid state trip devices (Gray Boxes) in Load Center circuit breakers 2B21013 and 2B21021 with Unit 2 Reactor in Mode 4 or 5 and-Unit 1 Reactor in any Mode of operation.

**SUMMARY:**

- I. No. The equipment required for fuel movement is available and the power to this equipment is not removed during performance of this TP. During performance of TP-206-001 AC power is removed from isolation dampers and valves. This does not result in the movement of isolation dampers or isolation valves. There is sufficient equipment available to meet the Technical Specifications for Mode 4 (with 2D640 operable) or Mode 5 when MCC 2B216 and 2B217 are de-energized. There is no Division II equipment supplied from MCC 2B216 and 2B217. De-energizing MCC 2B216 and 2B217 does not impact operation of Division II equipment. Therefore performance of this TP does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Performance of TP-206-001 de-energizes MCC 2B216 and 2B217. This is less significant than the loss of Division I AC Distribution System that has been analyzed in the FSAR. Loss of 2B216 and 2B217 does not prevent the rest of the Plant electrical system from performing its design safety function as described in FSAR Section 8.3. The reactor operators ability to maintain the unit in safe shutdown is not degraded since the safety systems/components required in Mode 4 (with 2D640 operable) or Mode 5 are operable and the equipment required for fuel movement is also operable. There are no new mechanisms for failures to prevent proper protective action at the system level when required during performance of TP-206-001. Therefore TP-206-001 does not create a possibility for an accident or malfunction of a different type than evaluated previously in the SAR.
- III. The Technical Specification Bases for Electric Power Systems, Section B3.8 states that the AC electrical power sources are designed to provide sufficient capacity, capability, redundancy and reliability to ensure the availability of necessary power to Engineered Safety Features systems so that the fuel, reactor coolant system and containment design limits are not exceeded. Also, power must be available to maintain the facility in shutdown or refuel conditions for extended periods and sufficient instrumentation/control equipment must be operable for monitoring and maintaining the unit status. The Technical Specifications/Technical Specification Manual requirements for performance of this TP in Mode 4 (with 2D640 operable) or 5 are satisfied and the equipment

required for fuel movement is operable when MCC 2B216 and 2B217 are de-energized. Therefore the margin of safety as defined in the bases for any technical specification is not reduced.

**SER NO: 01-082**

**CROSS REFERENCE: NL-99-025, Unit 2**

**DESCRIPTION OF CHANGE:**

Evaluation of TP-206-002 that provides the necessary guidance and work group coordination to safely de-energize Division I ESS Motor Control Centers (MCC's) 2B236 and 2B237 to replace solid state trip devices (Gray Boxes) in Load Center circuit breakers 2B23021 and 2B23022 with Unit 2 Reactor in Mode 4 or 5 and Unit I Reactor in any Mode Of operation.

**SUMMARY:**

- I. No. The equipment required for fuel movement is available and the power to this equipment is not removed during performance of this TP. During performance of TP-206-002 AC power is removed from isolation dampers and valves. This does not result in the movement of isolation dampers or isolation valves. There is sufficient equipment available to meet the Technical Specifications for Mode 4 (with 2D640 operable) or Mode 5 when MCC 2B1236 and 2B237 are de-energized. There is no Division II equipment supplied from MCC 2B236 and 2B237. De-energizing MCC 2B236 and 2B237 does not impact operation of Division II equipment. Therefore performance of this TP does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Performance of TP-206-002 de-energizes MCC 2B236 and 2B237. This is less significant than the loss of Division I AC Distribution System that has been analyzed in the FSAR, Loss of 2B236 and 2B237 does not prevent the rest of the plant electrical system from performing its design safety function as described in FSAR Section 8.3. The reactor operator's ability to maintain the unit in safe shutdown is not degraded since the safety systems/components required in Mode 4 (with 2D640 operable) or Mode 5 are operable and the equipment required for fuel movement is also operable. There are no new mechanisms for failures to prevent proper protective action at the system level when required during performance of TP-206-002. Therefore TP-206-002 does not create a possibility for an accident or malfunction of a different type than evaluated previously in the SAR.
- III. No. The Technical Specification Bases for Electric Power Systems, Section B3.8 states that the AC electrical power sources are designed to provide sufficient capacity, capability, redundancy and reliability to ensure the availability of necessary power to Engineered Safety Features systems so that the fuel, reactor coolant system and containment design limits are not exceeded. Also, power must be available to maintain the facility in shutdown or refuel conditions for extended periods and sufficient instrumentation/control equipment must be operable for monitoring and maintaining the unit status. The Technical Specifications/Technical Specification Manual requirements for performance of this TP in Mode 4 (with 2D640 operable) or 5 are satisfied and the equipment

required for fuel movement is operable when MCC 2B236 and 2B237 are de-energized. Therefore the margin of safety as defined in the bases for any technical specification is not reduced.

**SER NO: 01-083**

**CROSS REFERENCE: DCP 99-3037A, Unit 2**

**DESCRIPTION OF CHANGE:**

Replace KCR-21 battery cells with KC-19 battery cells for Unit 2 battery 2B640

**SUMMARY:**

- I. No. FSAR Section 8.3.2 describes the class IE 125 VDC System. The changeout of the 125VDC battery cells on battery 2B640 does not change the ability of the battery to perform its safety function. The reduction in engineering margin will not affect the ability of the KC-19 battery to meet all design basis requirements. Therefore, this change does not increase probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. FSAR Section 8.3.2 & 9.4.1 was reviewed. Calculation shows that the short-circuit current associated with the smaller capacity battery does not affect the ability of the installed circuit breakers to provide short-circuit protection to related equipment. The new battery has an acceptable seismic response and an ability to satisfy load profile requirements that does not compromise design integrity. Hydrogen generated from the KC-19 battery is adequately removed by the ventilation system and therefore poses no compromise to plant safety. The replacement of the 125 VDC battery cells with those of a lower capacity cell does not create the possibility for an accident or malfunction of a different type than that previously evaluated in the SAR.
- III. No. Electrical Power Systems- Sections 3.8.4, 3.8.5, 3.8.6, 3.8.7, & 3.8.8 of the Unit 2 Technical Specification Bases documents operational and surveillance requirements for the DC systems. Replacement of the KCR-21 cells with KC-19 cells will result in a net decrease in battery capacity. Battery 2B640 will however, have sufficient capacity to meet all design basis requirements, including the 4 hr. FSAR load profile and Station Blackout load profile. Adequate voltage will exist at the end device loads at the end of the four hour profile to assure equipment operability. Therefore, this change does not reduce the margin of safety as set forth in the Technical Specification Bases.



**SER NO: 01-084**

**CROSS REFERENCE: DCP 99-9011, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification provides for a plug jack connection in the undervessel cable tray and for new cabling from the plug jacks to the SMA jack connectors for Local Power Range Monitor (LPRMs) #16-33A and #48-33A.

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. In reviewing postulated system failures including Chapter 15.4, "Reactivity and Power Distribution Anomalies" the proposed action has no impact to the existing analysis since scheme logic and operational features remain the same. There are no new safety concerns or conditions not already evaluated or discussed in Sections 6 and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event which would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. Since this basic function will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. Tech. Spec. Basis 3.3.1.1, "Reactor Protection System Instrumentation", specifies the minimum operability and surveillance requirements involving nuclear instrumentation. Similarly, Tech. Spec. 3.3.2.1, "Control Rod Block Instrumentation", Tech. Spec. 3.1, "Reactivity Control Systems" and Technical Requirements Manual (TRM) 3.1.3, "Control Rod Block Instrumentation", have been reviewed. The proposed modification has no impact on the above mentioned Tech. Specs. The proposed modification does not adversely affect the logic, control, or operation of any safety-related plant system or component. The performance characteristics between the modified LPRM cabling and the existing LPRM cabling are equivalent. Therefore, this modification does not reduce the margin of safety as defined in the basis for any Technical Specification, and shall not adversely impact the Reactor Protection System response time.

**SER NO: 01-085**

**CROSS REFERENCE: DCP 96-9071, Unit N/A**

**DESCRIPTION OF CHANGE:**

This modification will justify the incorporation of Fire Zone 0-24E (Fire Area CS-8) into the Fire Area CS-3.

**SUMMARY:**

- I. No. A review of the FSAR (Sections 3, 6, 7, 9, 15, 15A, and applicable NRC Questions), the SSES SER (including all supplements), and the FPRR (all sections, including all deviation requests) was performed. The only applicable accident identified was a Safe Shutdown Fire located in Fire Area CS-3 in which the Fire Hazard Analysis assumes that the fire will occur. The inclusion of Fire Zone 0-24E into Fire Area CS-3 will not result in exceeding any allowable combustible or fire load limits for the Fire Area, nor will it include any ignition sources not previously addressed. There are no safe shutdown components or cables located in Fire Area CS-8 (Fire Zone 0-24E); therefore, no additional equipment important to safety will fail as a result of a postulated fire in Fire Area CS-3. In addition, the Safe Shutdown Path identified for both fire areas (Path 1) remains unchanged and no mechanical or electrical separation design requirements for equipment important to safety are affected. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. Assuming a design basis fire in fire Area CS-3 after the implementation of this modification (the inclusion of Fire Zone 0-24E into Fire Area CS-3), no additional safety related components will be lost, and Safe Shutdown Path I will still be available to safely shutdown the affected unit and, in addition, no component interfaces with safety related equipment will be adversely affected. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the affected components and their design parameters, none serve as the basis for any margin of safety as presented in the Technical Specifications and no system/component important to safety is adversely affected by this modification. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-086**

**CROSS REFERENCE: DCP 97-3027E, Unit N/A**

**DESCRIPTION OF CHANGE:**

The scope of this project is to install permanent Security barriers within the gatehouses in order to enhance existing security measures and aid in preventing unauthorized entry to the protected area.

**SUMMARY:**

- I. No. The Security barriers are not tied either directly or indirectly to any plant safety related systems. Due to the independence of this modification from other plant systems and upon review of FSAR Chapters 13 and 15 and the Physical Security Plan (PSP), it is concluded that this modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated.
- II. No. The Security barriers and ceiling tiles are purely physical in nature and do not require to be interfaced with any existing security or plant systems. The security force will provide the necessary compensatory measures as deemed appropriate during the installation of this project to ensure that there is no potential for the breach of existing physical barriers. Security personnel will be present during installation of the project to provide security to any area being modified during the installation phase of the project, or ensure that the area is returned to its original (or better) configuration.

No safety system impacts will be created and the existing Security plan will be enhanced without impacting the functionality of the security system. Therefore, this modification will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The security barriers are not specifically discussed in any Technical Specification section. This modification does not change the facility as described in the SAR and no change is needed to the SAR, including the Security Plan. The barriers will strengthen implementation of the Physical Security Plan as currently written. As the changes made by this DCP do not affect any plant safety or non-safety related systems, the margin of safety as defined in the basis for the Technical Specifications remains unchanged. Therefore, this modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-087**

**CROSS REFERENCE: NL-99-009, Units 1 and 2**

**DESCRIPTION OF CHANGE:** Instrument Air Dryer IF116A, B, C and D Heater Under-temperature Alarm setpoint and Air Dryer Tower Switching Dewpoint setpoint are revised per SCP J99-2093 (unit-1) and J99-2094 (unit-2). Under-temperature alarm is revised from 130°F to 115°F. Tower switching dewpoint setpoint is changed from – 42°F to a range of 42°F to – 55°F.

**SUMMARY:**

- I.. No. Per FSAR section 7.3.2b.4, "Consideration of Plant Contingencies", instrument air is not required to perform many protective action. Equipment using instrument air is designed to fail in a safe direction. Complete loss of instrument air will cause a reactor scram described in FSAR chapter 15. An analysis of "the Loss of instrument Air" is provided in FSAR section "Response To NRC Questions" Question # 211.17.

The proposed action, i.e., change in the setpoint, is in the conservative direction. It does not cause increase in the moisture content in the instrument air. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. Per FSAR section 7.3.2b.4, "Consideration of Plant Contingencies, instrument air is not required to perform any protective action. Equipment using instrument air is designed to fail in a safe direction. Complete loss of instrument air will cause a reactor scram described in FSAR chapter 15. An analysis of "the Loss of instrument Air" is provided in FSAR section Response To NRC Questions" Question # 211.17.

The proposed action, i.e., change in the setpoint is in the conservative direction. It does not cause increase in the moisture content in the instrument air. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Per FSAR section 7.3.2b.4. "Consideration of Plant Contingencies", instrument air is not required to perform any protective action. Equipment using instrument air is designed to fail in a safe direction. Complete loss of instrument air will cause a reactor scram described in FSAR chapter 15. An analysis of "the Loss of instrument Air" is provided in FSAR section "Response To NRC Questions" Question # 211.17.

The proposed action, i.e., change in the Setpoint, is in the conservative direction. It does not cause increase in the moisture content in the instrument air. The instrument air system is not addressed in the Technical Specifications. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-088**

**CROSS REFERENCE: DCP 98-3013E, Unit 2**

**DESCRIPTION OF CHANGE:**

The scope of this modification is the installation of sprinklers in the Unit 2 Reactor Building elevation 761", Fire Zones 2-5B (Valve Access Area II-515) and 2-5A-S (Valve Access Area Vestibule).

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The addition of piping and sprinkler heads to Automatic Preaction Sprinkler System PA-251 will not affect the safety function of the system.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effect of the modification is to increase the area of the facility protected by Automatic Preaction Sprinkler System PA-251. The active safety function is not adversely impacted by the modification.
- III. No. The modification will not reduce the margin of safety as defined in the basis for any Technical Specifications. The ability of Automatic Reaction Sprinkler System PA-251 will not be adversely affected by the addition of piping and sprinkler heads.

**SER NO: 01-089**

**CROSS REFERENCE: DCP 98-9011, Rev. 2, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification removes the Unit 2 system that provided temporary instrumentation to monitor the exterior surface differential temperature across the feedwater nozzle safe ends, in order to determine bypass leakage flow.

**SUMMARY:**

- I. No. Chapters 6 and 15 of the FSAR were reviewed to determine whether any accidents are applicable to the equipment affected by this DCP. The temporary system was tied to the Transient Monitoring System. The Transient Monitoring System is described in FSAR Section 7.7.1.9. Removing this system would not increase the probability of an accident with the Feedwater System since it does not directly interface with it. FSAR Sections 3.9.5.1.8, Section 6.2.3.2 .3. 1, and Section 7.7.2.4 were reviewed yielding no applicability. There are no engineered safety features or accident scenarios that would be impacted by this modification. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Removal of the non-safety-related temperature detectors and their associated cables, mounting hardware and flex conduit do not create a safety impact hazard. The original installation of the feedwater Nozzle Surveillance Instrumentation System did not interface directly with any safety or power generation system. It interfaced indirectly with the feedwater system by virtue of the temperature detector mounting. Removal of this system will not alter the function or operation of any safety-related or power generation system or structure. Therefore, the proposed action does not create the possibility for an accident or malfunction of a different type than any evaluated in the SAR.
- III. No. This modification simply removes a temporary monitoring system that is inoperable and has no impact on Technical Specifications. A passive monitoring system is being removed that has no interface with the operation of the feedwater system or any safety-related system. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-090**

**CROSS REFERENCE: NL-99-018, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This safety evaluation addresses various issues where information in FSAR Section 9.1.4, "Fuel Handling System" is incomplete or inconsistent with current practices as follows: 1.) The reactor vessel service platform support is not strapped to the outer edge of the reactor vessel flange as described in FSAR Section 9.1.4.2.5. 10. The FSAR is revised to eliminate reference to strapping the support to the vessel flange. 2.) The drywell head seal surface protector described in FSAR Section 9.1.4.2.10.2.2.1. does not exist. Reference to use of the seal surface protector is deleted from the FSAR. 3.) The setting of the electrical limit switches on the refuel platform auxiliary hoists is stated incorrectly in FSAR Section 9.1.4.3.7. The FSAR is revised to clarify the limit switch settings. 4.) A description of the main steam line (MSL) plug installation tool for the Preferred Engineering rubber disk plugs is added to the FSAR. 5.) A description of the air operated general purpose grapple is added to the FSAR. 6.) A description of the fuel transfer stand is added to the FSAR.

**SUMMARY:**

- I. No. No change in the probability of occurrence or the consequences of an accident or malfunction previously evaluated in the SAR was identified during the evaluation of any of the proposed changes. The service platform support, the fuel transfer stand and the refuel platform auxiliary hoist up limit switches are not included in the accident analysis of FSAR Chapter 15. The drywell head seal is tested for integrity after the head is installed. Therefore, lack of a seal surface protector does not change the assumptions or the consequences of any FSAR Chapter 15 accident analyses that take credit for primary containment integrity.

Load drop accidents are the primary concern arising from use of the main steam line plug installation tool and the air operated general purpose grapple. In both cases, any postulated load drop accidents are bounded by existing analyses. The design and inspection requirements for these tools ensure that the probability of dropping a load remains low.

- II. No. None of the proposed changes creates the possibility for an accident or malfunction of a different type than previously evaluated in the SAR. The service platform support does not perform a safety function. Even when not clamped to the vessel flange no credible event results in damage to equipment important to safety. The drywell seal surface protector and the fuel transfer stand minimize the potential for damage to safety related equipment. However, the possibility for equipment damage exists with or without the use of these devices. Load drop accidents are the primary concern arising from use of the main steam line plug installation tool or the air operated general purpose grapple. Load drop accidents of this type are already evaluated in FSAR Section 15.7.4, "Fuel and Equipment Handling Accidents" and in PP&L's response to NUREG 0612, "Control of Heavy Loads at Nuclear Power Plants".

Failure of the refuel platform auxiliary hoist 'up' limit switches could result in excessive exposure of personnel to radiation. The same risks of failure are present regardless of the limit switch settings.

- III. No. None of the changes identified above reduces the margin of safety as defined in the basis for any Technical Specification. Refueling Operations are addressed in Technical Specification 3.9. This Technical Specification does not include any requirements for the service platform support, the main steam line plug installation tool, or the fuel transfer stand. Technical Specification 3.6.1.1 identifies requirements for primary containment operability. Since testing ensures the drywell head seal is intact, damage to the seal surface that may occur when the head is removed does not reduce the margin of safety defined in the bases for T.S. 3.6.1.1. TRO 3.9.3 requires the refueling platform to be operable when used for handling fuel assemblies or control rods. The bases for TRO 3.9.3 requires setting of the auxiliary hoist up limit switches to provide sufficient shielding for the platform operators while handling irradiated components. The proposed change aligns the FSAR with information included in the bases of TRO 3.9.3.

The air operated general purpose grapple can be used to lift loads up to 1,000 lbs. Technical Requirements Manual Section 3.12.3, "Light Loads Requirements", identifies conditions for moving loads up to 1,000 lbs. over irradiated fuel. No changes to the bases for TRO 3.12.3 are needed, since all loads being lifted with the air operated general purpose grapple are 1,000 lbs. or less.



**SER NO: 01-091**

**CROSS REFERENCE: TP-244-027, Unit 2**

**DESCRIPTION OF CHANGE:**

TP-244-027 places the Unit 2 Condensate Filtration System (CFS) in service for the first time with Unit 2 operating at power.

**SUMMARY:**

- I. No. The activities of the procedure, which place Unit 2 CFS in service by closing 30" manual valve 205150 with the unit operating at power, have been evaluated with respect to the following accidents or malfunctions:
- FSAR Section 15. 1. 1. 1, " Loss of Feedwater Heating"
  - FSAR Section 15.1.2, "Feedwater Controller Failure-Maximum Demand"
  - FSAR Section 15.2.7, "Loss of Feedwater Flow"
  - FSAR Section 15.6.6, " Feedwater Line Break Outside Containment"

The actions of this procedure do not increase the probability of occurrence of a Loss of Feedwater Flow event because placing CFS in service using the 30" manual isolation valve 205150 is within the bounds of normal plant operating transients, such as placing a Condensate Demineralizer into Recycle. The actions of this procedure do not affect components which would increase the probability of occurrence of the other accidents.

- II. No. The activities of this procedure involve placing the CFS in service for the first time using the 30" manual butterfly valve 205150. The operation of the CFS system has been evaluated, and the expected small pressure changes resulting from placing CFS in service are within the bounds of currently evaluated transients for the affected systems. The worst case equipment failure or personnel error would result in conditions bounded by current accident analyses. As a result, performance of this procedure does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Feedwater/Main Turbine Trip Instrumentation is described in Tech Spec 3.3.2.2. This instrumentation is provided to initiate action of the feedwater/main turbine trip system in the event of a feedwater controller failure under maximum demand. As evaluated, the affect of the modification is to reduce reactor feedpump suction pressure by 20-35 PSIG. However, operation of the CFS does not adversely affect the ability to meet the minimum Reactor Feed Pump (RFP) runout criteria. Placing CFS in service with a 9-18 psid reduction in RFP suction pressure will be within the bounds of the evaluation for the modification. Further, there are no other changes to the performance or operation of the condensate or feedwater system that could affect the feedwater/main turbine trip instrumentation. Therefore, the margin of safety defined in the basis of this Tech spec is not reduced.

The results of the Nuclear Fuels reload licensing analysis will not be affected and will continue to meet applicable acceptance criteria. Thus, the margin of safety in the bases for the Core Operating Limits in Tech Specs 2.1, 3.2 & 3.1 is not reduced.

**SER NO: 01-092**

**CROSS REFERENCE: DCP 99-9012, Unit 2**

**DESCRIPTION OF CHANGE:**

This modification adds a new piston check valve and a new pipe support on the "A" reactor recirculation pump seal water pipe run to maintain required containment isolation integrity and to reduce the potential for pipe cracks due to high vibration.

**SUMMARY**

- I.. No. Based upon a review of the SAR (including FSAR Section 3.9, 12.2, 15), the initiating event which includes the components affected by this modification is the recirculation pump shaft break and the probability of this event occurring is not increased because this modification does not change the interface between the recirculation motor stand and the shaft. The failure probability of the affected piping is decreased because the support added reduces the probability of pipe cracking due to vibration, while not increasing the probability of pipe cracking due to other failure mechanisms. The support capability of the motor stand to which the new pipe support is mounted is not degraded as a result of this modification based upon location of the bolts and evaluation by the vendor. The affected components interface with the drywell and the recirculation pumps, which perform safety-related functions. The probability of a malfunction of this equipment is not increased because their interface is not affected and there is no change in the fluid properties within the piping which would result in an increase in the rate of drywell leakage. There are no new radiological pathways created and no radiological increase from existing pathways caused by this modification, as a result of an accident or a malfunction of equipment.
- II.. No. The possible failure modes of the modified piping and motor stand were evaluated for new impacts upon plant equipment and previously evaluated initiating events (evaluated in the SAR). No new impacts were identified. The modified system configuration conforms to the original construction codes and standards. The interfaces with equipment important to safety are unaffected by this modification since no new impacts were identified. Therefore, this modification will not result in an accident or malfunction of a different type being created for equipment important to safety.
- III. No. Based upon a review of the design parameters involved with this modification, none which serve as the basis for a margin of safety as presented in the SSES Technical Specifications, are adversely affected by the modifications. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification.

**SER NO: 01-093**

**CROSS REFERENCE: NL-98-093, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

These changes are being proposed to clarify and update the performance and physical property specifications for new (replacement) impregnated, activated carbon used in Unit 1, Unit 2, and common Non-Engineered Safety Feature (Non-ESF) ventilation system adsorber units.

**SUMMARY:**

- I. No. The proposed changes do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR. All of the affected components and systems are non-safety related. The charcoal in the Non-ESF ventilation system adsorber units is not an initiator of an accident evaluated in the SAR; and thus changes in the charcoal specifications will not increase the probability of occurrence of an accident. Fire in the charcoal adsorbers is the only malfunction described in the SAR (FSAR Section 9.4). The ignition temperature is the only property of charcoal related to this malfunction. The proposed changes will have no effect on the ignition temperature limit as presently required by the FSAR. The non-ESF ventilation exhaust charcoal adsorbers are not used to mitigate the consequences of any accidents evaluated in the SAR.
- II. No. The proposed changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The proposed changes do not affect the design, function, or operating procedures for any of the non-ESF ventilation exhaust treatment systems. There are no proposed changes in the performance or physical property testing procedures or acceptance criteria for activated carbon used in these systems.
- III. No. The performance of charcoal in the non-ESF ventilation system adsorber units is not addressed in the Technical Specifications or in the Technical Requirements Manual. Thus changes in the performance and physical property testing of new charcoal will not reduce the margin of safety as defined in the bases for either the Technical Specifications or the Technical Requirements Manual.

**SER NO: 01-094**

**CROSS REFERENCE: NL-99-031, Unit N/A**

**DESCRIPTION OF CHANGE:**

All references to the Emergency Operations Facility (EOF) Chemistry Laboratory/Counting Room will be changed to 'West Building' Chemistry Laboratory/Counting Room to reflect the fact that the EOF has been moved to the East Mountain Business Center (EMBC) and the building housing the backup chemistry facilities has been renamed the 'West building'. The reference to the EOF (now West Building) diesel generator in FSAR Section 18.1.21.3.3.2 will be deleted, as it is no longer required following the move of the EOF to the EMBC.

**SUMMARY:**

- I. No. The proposed changes do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR. All of the affected components and systems (West Building diesel generator, chemistry laboratory/counting room and equipment contained therein) are non-safety related. None of the affected components are initiators of any accident evaluated in the SAR. None of the affected components are used to mitigate the consequences of any accident evaluated in the SAR. None of the affected components were evaluated for malfunctions in the SAR.
- II. No. The proposed changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. Changing the name of the building housing the backup chemistry facilities can not create the possibility for any accident or malfunction. The only consequence of removing the West Building diesel generator is to reduce the reliability of power to the backup chemistry laboratory/counting room; and thus increase the probability that post-accident samples will not be promptly analyzed. The information obtained from this analysis is not used to mitigate the consequences of an accident.
- III. No. The proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification. None of the components involved in these FSAR changes (West Building Chemistry Laboratory/Counting Room, analytical equipment contained therein, and diesel generator) are addressed in the Technical Specifications or Technical Requirements Manual Bases.

**SER NO: 01-095**

**CROSS REFERENCE: NL-98-092, Unit N/A**

**DESCRIPTION OF CHANGE:**

These changes are being proposed to clarify and update the performance and physical property specifications for new (replacement) impregnated, activated carbon used in the Standby Gas Treatment (SGTS) and Control Structure Emergency Outside Air Supply Systems (CREOASS).

**SUMMARY:**

- I. No. The proposed changes do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR. The charcoal in SGTS and CREOASS is not an initiator of an accident evaluated in the SAR; and thus changes in specifications for charcoal will not increase the probability of occurrence of accidents. Fire in the charcoal adsorbers is the only malfunction described in the SAR (FSAR 6.5.1). The ignition temperature is the only property of charcoal related to this malfunction. The proposed changes will have no effect on the ignition temperature limit as presently required by the FSAR. For all accidents analyzed in the FSAR (15.2.4.5, 15.6.2.5, 15.6.5.5, 15.7.4.5) the purpose of the charcoal is to remove iodines. The proposed changes will have no effect on the ability of the charcoal to meet this requirement.
- II. No. The proposed changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The proposed changes do not affect the design, function, or operating procedures for SGTS or CREOASS (FSAR 6.5.1 and 9.4.1). There are no proposed changes in the performance or physical property testing procedures or acceptance criteria for activated carbon used in these systems.
- III. No. The proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification. The Technical Specifications address the performance of the charcoal in the SGTS and CREOASS adsorber units in SR 3.6.4.3.2 and SR 3.7.3.2, respectively. These surveillance requirements state that the charcoal in these systems must be tested in accordance with the Ventilation Filter Testing Program. This program is discussed in greater detail in Technical Specification Section 5.5.7. The proposed FSAR changes do not impact any of the requirements for charcoal as defined in these Technical Specifications.

**SER NO: 01-096**

**CROSS REFERENCE: NL-99-040, Unit 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses the impact of the missing pressure washer fan jet leaf assembly pieces that are assumed to be lost somewhere within the vessel or systems attached to the vessel.

**SUMMARY:**

- I. No. The missing parts lack sufficient size, geometry, and strength to adversely affect those components analyzed in the SAR to initiate an accident or malfunction. Therefore, the missing parts do not increase the probability of occurrence of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- II. No. The missing parts are incapable of damaging any components important to safety or preventing any component important to safety from performing its safety function. Therefore, the missing parts cannot create the possibility of an accident or malfunction of a different type than any previously reviewed in the SAR. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- III. No. The missing parts are incapable of damaging any component important to safety or preventing any component important to safety from performing its safety function. Therefore, the missing parts cannot reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-097**

**CROSS REFERENCE: NL-99-041, Unit 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses the impact of the missing Health Physics swipe pad that is assumed to be lost somewhere within the vessel or systems attached to the vessel.

**SUMMARY:**

- I. No. The lost swipe pad will not affect any components analyzed in the SAR as the reactor approaches operating temperature and prior to power operation, the swipe pad will totally decompose. Therefore, the lost swipe pad does not increase the probability of occurrence of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- II. No. The lost swipe pad is incapable of damaging any components important to safety or preventing any component important to safety from performing its safety function. In addition, the swipe pad will totally decompose and not affect coolant chemistry. Therefore, the lost swipe pad cannot create the possibility of an accident or malfunction of a different type than any previously reviewed in the SAR. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- III. No. The lost swipe pad will totally decompose and does not prevent any system important to safety from performing its safety function. Therefore, the missing parts cannot reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-098**

**CROSS REFERENCE: NL-99-042, Unit 2**

**DESCRIPTION OF CHANGE:**

This evaluation addresses the impact of the missing nylon rope that is assumed to be lost somewhere within the vessel or systems attached to the vessel.

**SUMMARY:**

- I. No. The lost small piece of nylon rope will not affect any components as the reactor approaches operating temperature. Because the nylon rope will break into small brittle fragments prior to power operation, it will not affect power operations. Prior to vessel heat-up, the nylon rope may be transported to systems connected to the water-side of the reactor vessel; however, they will not affect the function of any components important to safety. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- II. No. The lost small piece of nylon rope is incapable of damaging any components important to safety or preventing any component important to safety from performing its safety function. In addition, the small piece of nylon rope will break into small brittle fragments prior to power operations. Prior to vessel heat-up, the nylon rope may be transported to systems connected to the water-side of the reactor vessel; however, they will not affect the function of any components important to safety. Therefore, the lost piece of nylon rope cannot create the possibility of an accident or malfunction of a different type than any previously reviewed in the SAR. FSAR Chapters 1, 6, 11, and 15 were reviewed to reach this conclusion.
- III. No. The lost small piece of nylon rope will break into small brittle fragments prior to power operations and does not prevent any system important to safety from performing its safety function. Therefore, the lost piece of nylon rope cannot reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-099**

**CROSS REFERENCE: NL-99-010, Unit N/A**

**DESCRIPTION OF CHANGE:** Engineering has identified that cold outside air temperatures may impact the secondary containment volumetric exhaust flow rate to the Standby Gas Treatment System (SGTS) (SGTS Exhaust flow rate) and exceed the values established in the FSAR. This evaluation will determine if neglecting this phenomena in the licensing basis requires prior approval of the NRC.

**SUMMARY:**

- I. No. Neglecting the cold air affect does not increase the probability of occurrence of an accident or cause the malfunction of equipment important to safety. The consequences of an accident are increased by a negligible amount and the resulting offset doses are still significantly lower than the regulatory limits. Neglecting the cold air affect does not impact the ability of SGTS to maintain the secondary containment at the negative pressure requirement. Thus, the secondary containment will be able to perform its safety function as defined by the technical specification bases. The SGTS will still filter and absorb radioactive materials that are released to the environment from the secondary containment. The safety function of SGTS as defined by the technical specification bases will be met. Since the secondary containment and SGTS met their safety function, it was concluded that the malfunction of equipment important to safety would not occur. A review of FSAR sections 3, 6 and 15 indicates that colder outside air temperatures will not increase the probability of an accident. The consequences of the DBA LOCA using Regulatory Guide 1.3 assumptions increases by a negligible amount and the safety significance of the increase is insignificant.
- II. No. Neglecting the cold air affect does not create a possibility for an accident or malfunction of a different type than previously evaluated. Neglecting the cold air affect does not impact the ability of SGTS to maintain the secondary containment at the negative pressure requirement. Thus, the secondary containment will be able to perform its safety function as defined by the technical specification bases. The SGTS will still filter and absorb radioactive materials that are released to the environment from the secondary containment. The safety function of SGTS as defined by the technical specification bases will be met. Since the secondary containment and SGTS met their safety function, it was concluded that no new release paths are created therefore the possibility for an accident of a different type does not exist. A review of FSAR sections 3, 6 and 15 indicate that colder outside air temperatures will not create a malfunction of a different type than previously evaluated in the SAR.
- III. No. Neglecting the cold air affect does not reduce the margin of safety as defined in the bases section of the technical specifications. Neglecting the cold air affect does not impact the ability of SGTS to maintain the secondary containment at the negative pressure requirement. Thus, the secondary containment will be able to perform its safety function as defined by the technical specification bases. The SGTS will still filter and absorb radioactive materials that are released to the environment from the secondary containment. The safety function of SGTS as defined by the technical specification bases will be met.

**SER NO: 01-100**

**CROSS REFERENCE: DCP 97-9051, 97-9052, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This modification provides for the installation of a pressure gauge in an extension to an existing 1" drain connection located downstream of the Reactor Core Isolation Cooling (RCIC) pump. pump discharge check valve and also for the installation of two isolation (ball) valves.

**SUMMARY:**

- I. No. Sections of the FSAR dealing with the RCIC and Condensate Transfer System (CTS) were reviewed for accidents which involve these systems. The review included Section 3.5.1 (RCIC components), 3.9.3, 5.4.6 (RCIC System), 6.3.2.2.5 (Discharge Line Fill System), 15, 15A, Questions 211.102, 211.211, 260. 1.d.a-2, the SSES Fire Protection Review Report and the SER (5.4.1, 6.3.2.3). Based upon this review, the following two accidents were found applicable for evaluation: "RCIC Pipe Break Outside Containment" and "RCIC Compartment Fire". The probability of these accidents is not increased as a result of the proposed activity because the extension of a RCIC discharge line drain connection to accommodate a pressure indicator does not affect the piping or instrumentation associated with the pipe break initiating event or a compartment fire. There is no adverse affect to the function or operation of the RCIC system or CTS nor do they create any new system or component interface, and they do not degrade any radiological release path. Therefore, the proposed activity does not increase the probability or occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The possible failure modes of the modified drain connection in the RCIC pump discharge piping were evaluated for new impacts upon plant equipment and previously evaluated initiating events evaluated in the SAR in Sections 15 and 15A. No new impacts were identified since there are no functional changes to plant components as originally designed, and the modified system configuration conforms to the ANSI B31.1 Power Piping Code. The modified drain connection shall be designed to meet all piping design requirements and the new globe valves and pressure gage have been chosen for their suitability to this application. Furthermore, the interfaces with the CTS and keepfill subsystem are unaffected by this modification since no new impacts were identified. Therefore, this modification will not result in an accident or malfunction of a different type being created.
- III. No. Based upon a review of the RCIC System design parameters, none are affected by this proposed activity of adding keepfill pressure indication in a discharge pressure drain connection line. As a result of this review and an investigation of Technical Specification Bases B 3.5.3 for the RCIC System, no parameters which serve as the basis for any margin of safety as presented in the SSES Technical Specifications are affected by this proposed activity. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification.

**SER NO: 01-101**

**CROSS REFERENCE: DCP 97-9092/97-9093, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

DCPs 97-9092 and 97-9093 replace stator cooling water pump indicator lights in panels 1(2) C125 with resistor type assemblies.

**SUMMARY:**

- I. No. The proposed action does not affect the spectrum of postulated events for which transients or anticipated operational occurrences and accident conditions were analyzed. The proposed modification maintains the design basis of the Stator Cooling Water System. There is no increase in the probability of an accident. There are no new safety concerns or conditions not already evaluated or discussed in Sections 6 and 15 of the FSAR. This modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The proposed changes do not involve a postulated initiating event that would create the possibility of an accident of a different type. The proposed action will not affect any structure, system, or component in performing its safety function. Since this basic function will not change as a result of this modification, this modification does not create a possibility for an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- III. No. All sections of the Technical Specifications and the Technical Requirements Manual were reviewed for determination of applicability with respect to the proposed modification. The review did not identify any conflicts because the overall performance of the Main Turbine Generator System remains the same as the original design and the proposed changes have totally no effect on the specifications related to the main turbine. No degradation to any station power distribution network occurs. None of the bases for the Unit 1/2 Technical Specifications are affected by this modification. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-102**

**CROSS REFERENCE: DCP 95-30140, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification relocates the Unit 1 iron injection nozzle downstream of the condensate reject line to the condensate storage tank by creating a new injection connection in the condensate pipe, removing the existing injection nozzle, and plugging the existing pipe connection. This modification also replaces the existing flow element that measures total condensate flow for Condensate Filtration System (CFS) with an element similar to that installed on Unit 2.

**SUMMARY:**

- I. No. According to FSAR Section 10.4.7.1, the condensate and feedwater systems are designed to return condensate from the hotwell to the reactor at the required flow rate, pressure, and temperature and have no safety related function. These systems are also designed to automatically maintain water levels in the reactor and condenser hotwell during steady-state and transient conditions. FSAR Section 10.4.7.3 states that if a pipe break occurs in the non-seismic piping, the reactor level will fall and on low-low level the High Pressure Coolant Injection (HPCI) pump will be started automatically and a reactor trip will be initiated. Relocation of the injection point and replacement of the annubar have no impact on this function of the condensate and feedwater systems as discussed in the FSAR. In addition the new piping connection for the iron injection nozzle will be designed in accordance with ANSI B31.1 to the appropriate pressure and temperature requirements so that the probability of a pipe break is not increased.

FSAR Section 3.6.1 analyzes pipe breaks in high energy fluid system piping and moderated energy fluid system piping. This modification is bounded by this analysis since the condensate piping is not routed into new areas, which presently do not include condensate piping. This modification is bounded by the analysis performed for the feedwater line break outside containment discussed in FSAR Section 15.6.6. Therefore, the consequences of an occurrence of an accident or malfunction of equipment important to safety is not increased for either action.

- II. No. This modification changes the location of the iron injection nozzle, but does not change its design, function or operation. Similarly, the flow element installed to measure total condensate flow was included as an integral part of the CFS controls, which are not changed by the replacement of the flow element. Therefore, this modification does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR.
- III. No. There are not Technical Specifications directly affected by this modification. The condensate system interfaces with the feedwater system, which does have a Technical Specification for Feedwater/Main Turbine Trip Instrumentation (Technical Specification Bases B3.3.2.2). This modification has no effect on the performance or operation of the condensate system; therefore, there is no impact on the feedwater system or its instrumentation and there is no reduction in the margin of safety defined in Technical Specification Basis B3.3.2.2.

**SER NO: 01-103**

**CROSS REFERENCE: DCPs 96-9109 and 96-9110, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed modifications include the installation and use of seismic restraint mechanisms, bolted grounding studs and adjustable Mechanically Operated Contact (MOC) channel to seismically qualify the Units 1 and 2 4KV switchgear during maintenance, operations, and testing when the breakers are in any other position than "racked-in".

**SUMMARY:**

- I. No. The proposed modification does not interfere with the operation or testing of the 4KV switchgear cubicles or breakers. Testing of the breaker in the "test position" is enhanced. The switchgear and breakers will have the same functionality as previous to this modification. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. No new accident types are created by the installation and use of the newly installed and qualified Hilti type anchors, restraint brackets, adjustable MOC channel, ground studs, or storage boxes. No new failure modes are created by this modification. The proposed modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed modification installs qualified Hilti type anchors in the concrete floor beneath within the 4KV switchgear, implements the use of seismic restraint brackets, adjustable MOC channel, installs new ground studs within the 4KV switchgear cubicles, and installs storage boxes for switchgear parts. The surveillance requirements given in technical specification section 3.8.7 for the 4KV switchgear breakers are not affected by this modification. The proposed modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-104**

**CROSS REFERENCE: DCP 98-3014B, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Areas R-1A, R-1 B and CS-11.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 1-4A-N, 1-4A-S, 1-4A-W or 0-28A-1. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 1-4A-N, 1-4A-S, 1-4A-W or 0-28A-1.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-105**

**CROSS REFERENCE: DCP 98-3014E, Unit 1**

**DESCRIPTION OF CHANGE:**

The scope of this modification is the installation of sprinklers in the Unit 1 Reactor Building elevation 683", Fire Zone 1-3A. Supply for the sprinkler piping is taken from existing PA-131 piping in Fire Zone 1-3A.

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The addition of piping and sprinkler heads to Automatic Preaction Sprinkler System PA-131 will not affect the safety function of the system. TRM Basis B3.7.3.2, FSAR Section 9.5.1 and Chapter 15, and FPRR Sections 4.1, 4.4, 4.10, 4.11, 4.12 and 6 have been reviewed in making this determination..
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effect of the modification is to increase the area of the facility protected by Automatic Preaction Sprinkler System PA-131. This effect does not create the possibility of a new accident or malfunction. The active safety function is not adversely impacted by the modification. FSAR Section 9.5.1 and Chapter 15, and FPRR Sections 4.1, 4.4, 4.10, 4.11, 4.12, and 6 have been reviewed in making this determination.
- III. No. The modification will not reduce the margin of safety as defined in the basis for any Technical Specifications. The ability of Automatic Preaction Sprinkler System PA-131 will not be adversely affected by the addition of piping and sprinkler heads. The Technical Requirements Manual Sections 3.7.3.1 "Fire Suppression Water Supply System" and 3.7.3.2 "Spray and Sprinkler Systems" were reviewed in making this determination.

**SER NO: 01-106**

**CROSS REFERENCE: DCPs 97-9053, 97-9054, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This modification provides for the installation of a pressure gauge in an extension to an existing 1" drain connection located downstream of the High Pressure Coolant Injection (HPCI) pump discharge check valve and also for the installation of two isolation (ball) valves.

**SUMMARY:**

- I. No. Sections of the FSAR dealing with the HPCI and CTS were reviewed for accidents that involve these systems. The review included Sections 1.2.2.4, 3.1.2.4, 3.6, 3.7, 3.8, 3.9.2, 3.9.3, 5.4.6 and 6.3 with particular attention paid to 6.3.2.2.1 and 6.3.2.2.5. Based upon this review, the following three accidents were found applicable for evaluation. "HPCI Pipe Break Outside Containment", "Inadvertent HPCI Injection", and "HPCI Compartment Fire". The probability of these accidents is not increased as a result of the proposed activity because the extension of a HPCI discharge line drain connection to accommodate a pressure indicator does not affect the piping or instrumentation associated with the pipe break initiating event or a compartment fire. There is no adverse affect to the function or operation of the HPCI system or CTS nor do they create any new system or component interface, and they do not degrade any radiological release path. Therefore, the proposed activity does not increase the probability or occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The possible failure modes of the modified test/drain connection in the HPCI pump discharge piping were evaluated for new impacts upon plant equipment and previously evaluated initiating events evaluated in the SAR in Sections 15 and 15A. No new impacts were identified since there are no functional changes to plant components as originally designed, and the modified system configuration conforms to the ANSI B31.1 Power Piping Code. The modified drain connection shall be designed to meet all piping design requirements and the new globe valves and pressure gage have been chosen for their suitability to this application. Furthermore, the interfaces with the CTS and keepfill subsystem are unaffected by this modification since no new impacts were identified.

Therefore, this modification will not result in an accident or malfunction of a different type being created.

- III. No. Based upon a review of the HPCI System design parameters, none are affected by this proposed activity of adding keepfill pressure indication in a discharge pressure drain connection line. As a result of this review and an investigation of Technical Specification Bases B 3.5.1 and B 3.5.2 for the HPCI System, no parameters which serve as the basis for any margin of safety as presented in the SSES Technical Specifications are affected by this proposed activity. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification.



**SER NO: 01-107**

**CROSS REFERENCE: DCPs 99-3038A, Unit N/A**

**DESCRIPTION OF CHANGE:**

The scope of this modification includes the following:

- Installation of fencing/gates adjacent to the existing inner security fence.
- Installation of fencing/gates in front of the "A-D" Diesel Generator Building extending to the Service & Administration Building
- Installation of fencing/gates in front of the Unit 1 & 2 Reactor Building roll-up doors.
- Installation of fencing/gate in front of Radwaste Building roll-up door.
- Installation of fencing/gates on the west side of the North Gatehouse.
- Installation of door/window bars and gun ports at the North and South Gatehouses.

**SUMMARY:**

- I. No. The design basis accidents listed in Chapter 15 of the FSAR were reviewed for potential impact by this change. The installation of fencing/gates and the modifications at the North and South Gatehouses do not effect either directly or indirectly any plant safety related system. This change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. This modification will not interface with any safety related equipment and it does not create the potential for a new type of malfunction. The Susquehanna SES Physical Security Plan describes actions to be undertaken during construction projects at SSES. The security force will provide any necessary compensatory measures as deemed appropriate during implementation of this modification.
- III. No. The plant security system is not addressed in any Technical Specification and since the changes made by this modification do not affect any plant systems, the margin of safety as defined in the basis for the Technical Specifications remains unchanged. Therefore, this modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-108**

**CROSS REFERENCE: DCPs 98-3013G, 98-3014G, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed action adds, replaces or relocates fire detectors to provide the appropriate level of compliance of the existing fire detection system for those specific areas of Fire Zones 1-3A, 1-5A-S, 1-5A-W, 2-5B and 2-5A-S where the existing fire suppression system is being extended to support installation of the 1-hour fire barrier upgrade system.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. There are no impacts on equipment important to safety. The function of the fire detection system affected by the proposed action does not change. The proposed action, combined with the extension of the existing fire suppression system, the installation of a qualified 1-hour fire barrier upgrade system and the reprogramming of the software in 1C650 and 2C650, assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 1-3A, 1-5A-S, 1-5A-W, 2-5B or 2-5A-S. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action. A Technical Requirements Manual change to Table 3.7.3.8-1 is required to identify new and replaced fire detectors.

**SER NO: 01-109**

**CROSS REFERENCE: NL-99-030, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This change revises SSES FSAR Section 4.5.1.1(5) Material Specifications Miscellaneous Parts to include an additional, alternate material for the Control Rod Drive (CRD) piston tube nut.

**SUMMARY:**

- I. No. The proposed action is a change to the FSAR to include ASME SA479 XM-19 as an additional material choice for the CRD piston tube nut. Piston tube nuts fabricated from this material are considered interchangeable parts in fit, form, and function. ASME A479 XM-19 is an equivalent or better material for the intended service and provides higher strength and greater resistance to stress corrosion cracking. Because the part is considered totally interchangeable, the proposed change will not increase the probability of occurrence or the consequences of an accident or malfunction of the CRD piston tube assembly or associated CRDs.
- II. No. The proposed action is a change to the FSAR to include ASME SA479 XM-19 as an additional material choice for the CRD piston tube nut. Piston tube nuts fabricated from this material are considered interchangeable parts in fit, form, and function. ASME A479 XM-19 is an equivalent or better material for the intended service and provides higher strength and greater resistance to stress corrosion cracking. Because the part is considered totally interchangeable, the proposed change will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR for the piston tube assembly or associated CRDs.
- III. No. Technical Specifications sections which may be affected by this change are:  
– TS3.1, Reactivity, Control Systems and TS3.4 Reactor Coolant System. The proposed action is a change to the FSAR to include ASME SA479 XM-19 as an additional material choice for the CRD piston tube nut. Piston tube nuts fabricated from this material are considered interchangeable parts in fit, form, and function. ASME A479 XM-19 is an equivalent or better material for the intended service and provides higher strength and greater resistance to stress corrosion cracking. Because the part is considered totally interchangeable, the proposed change has no impact on any margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-110**

**CROSS REFERENCE: . DCP 98-3008, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action is to declare the protective fire barrier material inactive on selected raceways in Fire Areas R-1A and R-1B. Cable tray covers are installed to bring the raceways into compliance with the electrical separation requirements.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 1-5A-S, 1-6A, or 1-61-I.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident-of a different type. The interfacing system evaluations preclude the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-111**

**CROSS REFERENCE: DCP 94-3015 and 94-3016 Revision 3, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

These changes replace the existing Unit 1 and Unit 2 computer systems with a new updated integrated plant computer system (PICSY). The computers, data acquisition equipment, and man-machine interface equipment in the following existing computer systems are being replaced with more modern equipment: Plant Computer System (PCS), Safety Parameter Display System (SPDS), Transient Recording and Analysis System (TRA/TMS/GETARS), the Remote Data Analysis System (RDAS), and Emergency Response Data System (ERDS).

**SUMMARY:**

- I. The PICSY equipment installation interfaces with the plant process systems in the same way as the existing systems. The design addresses seismic item interaction, combustible loading, electrical separation, electrical loading, and 10CFR50 App. R requirements. The failure of PICSY or any component of PICSY will not affect any safety related system or component in the plant. PICSY does not act directly or indirectly with systems or equipment important to safety in a manner that is different than the existing equipment. Therefore, the plant computer equipment installed by this change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the FSAR sections 3, 7, 8, 9, 15, and 18.
- II. No. The functions and analyses performed by PICSY are the same functions and analyses described in FSAR section 7.7 for the individual systems that are being replaced. Calculations demonstrate that there are no safety item interactions. PICSY computer inputs are isolated from safety related systems where required. Electrical calculations demonstrate that PICSY loads do not adversely affect Class IE power supplies or the ability to safely shut down the plant in the event of a fire or accidents. Therefore these changes do not create a possibility of an accident or malfunction of a different type than previously evaluated in FSAR sections 3, 7, 8, 9, 15, and 18.
- III. No. The PICSY equipment and functions are fully consistent with previously existing computer equipment and functions and by meeting these requirements, these changes do not impact the margin of safety. The changes do not reduce the margin of safety as defined in the basis for any Technical Specification. Technical Specifications and their bases were reviewed in making this determination.

**SER NO: 01-112**

**CROSS REFERENCE: . DCP 99-9003, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification will reduce the stresses imparted onto the seal weld around the Reactor Water Cleanup (RWCU) Non-Regenerative Heat Exchanger diaphragm (which is a contributor to weld cracks causing leakage from the weld) by replacing the 1/8" thick diaphragm with a 1/2" thick diaphragm.

**SUMMARY:**

- I. No. Based upon a review of the FSAR (Sections 3.6, 3.9, 5.2, 5.4, 6.2, 7.3, 7.6, 11.4, 12.2, 18.1), the FPRR, and the SSES SER, the only initiating event identified as being applicable is the possibility of a breach of the Reactor Coolant Pressure Boundary (RCPB). This modification will reduce the probability of a loss of reactor coolant from the Non-Regenerative Heat Exchanger (since the probability of a leak is reduced); it does not involve equipment important to safety or equipment required to be a radiological barrier; it does not add, create, nor change interfaces with any equipment important to safety; it is designed and installed to the applicable Codes and Standards; and does not adversely affect the ability of RWCU to perform its functions identified in the SAR. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. Equipment affected as a result of this modification does not affect components or structures which contribute to initiating events or failures of equipment important to safety, and the modification does not add, delete, or alter interfaces with components or structures related to initiating events. The potential for the RWCU system to leak reactor coolant has been accounted for in the SAR via implementation of the leak detection system in the RWCU equipment room. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the Technical Specifications and Bases (Sections 3.4.7, 5.5) and the Technical Requirements Manual (TRM) (Sections 2, 3.4, B3.4, B.11) with reference to this modification, no design parameters involved in this modification relate to a margin of safety (as defined in the basis for any Technical Specification). Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-113**

**CROSS REFERENCE: . NL-99-037, Unit N/A**

**DESCRIPTION OF CHANGE:** This change 1) Revises FSAR 9.2.5.2 (ESW) and 9.2.6.2 (RHRSW) to delete the word "periodic" from the description of the use of manways for inspecting the inside of buried piping, and to delete the discussion of the use of corrosion coupons mounted in the manways for corrosion assessment, 2) Provides evaluation of previously implemented incorporation of the H1019 Piping Corrosion Inspection Program into FSAR 9.2.5.2 and 9.2.6.2 and 3) Provides evaluation of previously implemented revisions to FSAR 9.2.7.2.1 (Ultimate Heat Sink) for spray pond chemistry, post-DBA scale control and the reduction of the time period post-DBA for chemical treatment to prevent scale from two weeks to one week.

**SUMMARY:**

- I. No. Neither the probability nor the consequences of an accident or malfunction of equipment important to safety are increased.

The following FSAR sections were reviewed to support the change:

FSAR 1.2.2.4.18 (RHRSW) and 19 (ESW), FSAR 6.3.3 ECCS Performance Evaluation, FSAR 9.2.5 ESW, FSAR 9.2.7 Ultimate Heat Sink, NRC Questions, Sections 010, 371, FSAR 1.2.2.8.2 (RHRSW) and 3 (ESW), FSAR 8.3.1 (on-site) AC Power Systems, FSAR 9.2.6 RHRSW, FSAR 15 Accident Analysis, SER 9.2 and Auxiliary Systems.

Except for FSAR 15.2.9, there are no evaluated accidents in the SAR that could be caused or initiated by events in the Emerging Service Water (ESW) or Residual Heat Removal Service Water (RHRSW) system or in the Spray Pond. The piping corrosion inspection program provides adequate assurance that the system piping will not fail due to corrosion. Spray pond chemistry controls have been implemented to prevent calcium carbonate scale from depositing during normal operation. Therefore, there is no increase in the probability of the Loss of Shutdown Cooling accident. There is no increase in the probability of a malfunction of ESW or RHRSW due to corrosion or precipitation of calcium carbonate scale.

Appropriate actions are taken to maintain chemistry such that scale will not precipitate for one week following a DBA, assuming no pond makeup and conditions that maximize evaporative losses. Guidance has been provided in the Emergency Plan to monitor pond chemistry post-DBA. Chemical treatment to prevent scale is expected to be available if needed one week after a DBA. Since there is no increase in the probability of a malfunction, there is no affect on the consequences of accidents evaluated in the SAR. Also, the above actions provide assurance that corrosion or scaling will not produce common-mode failures of ESW or RHRSW.

- II. No. There is no possibility for an accident or malfunction of a different type than evaluated in the SAR. Corrosion of piping and fouling of heat transfer surfaces with calcium carbonate scale will only affect the capability of ESW and RHR to perform their normal and safety-related cooling functions. No other accidents or consequences have been identified. The consequences of the loss of individual loops of ESW or RHRSW due to corrosion or fouling are bounded by existing analyses, where single failures leading to loss of safety-related functions were presumed. Corrosion monitoring, heat exchanger inspection and chemistry control programs have been implemented which preclude common-mode failures of ESW or RHRSW due to corrosion and fouling with calcium carbonate.
  
- III. No. The proposed changes do not reduce the margin of safety as defined in the basis for any Technical Specification. There is no specific margin of safety defined relative to piping corrosion, heat transfer fouling or spray pond chemistry in any Technical Specification or Technical Requirements Bases. The following Technical Specification Bases were reviewed: B 3.4.8, RHR Shutdown Cooling - Hot Shutdown; B 3.4.9, RHR Shutdown Cooling - Cold Shutdown; B 3.6.2.3, RHR Suppression Pool Cooling; B 3.6.2.4, RHR Suppression Pool Spray; B 3.7.1 RHR Service Water, B 3.7.2 ESW; and B 3.8.1 AC Sources - Operating. Technical Requirements Manual sections 3.7.1, ESW - Shutdown and 3.7.2, Ultimate Heat Sink - Ground Water Level and their associated BASES were reviewed.



**SER NO: 01-114**

**CROSS REFERENCE: . NL 99-044, Units 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed action allows both fans in each pair of Main Condenser Compartment Unit Coolers (1V113A,B,C,D and 2V113A,B,C,D) to be started manually. Currently these fans are operated in a lead/standby configuration as described in Section 9.4.4.2 of the FSAR.

**SUMMARY:**

- I. No. A review of FSAR Chapter 15 accidents identified only a main steam line break outside of primary containment, Section 15.6.4, as being affected by implementation of the proposed action. The Steam Leak Detection System is designed to detect a steam leak before it becomes a catastrophic failure and is a first line of defense against such an event. Implementation of the proposed action does not in any way degrade the Steam Leak Detection System or any other system important to safety and does not increase the probability of occurrence or the consequences of an accident.
- II. No. The proposed action to allow both fans in each pair of Main Condenser Compartment Unit Coolers to be started manually will not create a possibility for an accident or malfunction of a type not previously evaluated in the SAR. A review of FSAR Chapter 15 accidents, identified only the main steam line break outside of primary containment, Section 15.6.4, as being affected by implementation of the proposed action.
- III. No. The only Technical Specification reference to the Turbine Building Steam Leak Detection System appears in TRM Table 3.3.6.1 for Primary Containment Isolation Instrumentation. Implementation of the proposed action does not reduce the margin of safety as defined in this TRM or in any other Technical Specification nor does it reduce the margin of safety implied in the basis of any Technical Specification.

**SER NO: 01-115**

**CROSS REFERENCE: . NL-99-036, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed change clarifies information regarding the location of Halon suppression capability in safety related Power Generation Control Complex (PGCC) modules.

**SUMMARY:**

- I. No. There is no physical change to the plant. Inserting the information into the FPRR as described in this change has no effect on the design or operation of the plant's fire protection systems. Because no safety function specifically assumed in the safety analysis is affected, the probability of occurrence or the consequences of an accident or malfunction of equipment Important to safety, as previously evaluated in the SAR is not increased by this change. This change does not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
- II. No. The addition of this information to the SSES FPRR does not create or result in any physical change to the plant, procedures or training. Inserting the information into the FPRR as described in this change has no affect on the design or operation of the plant's fire protection systems. Because there is no physical change to the plant, procedures or training, the response of the plant has not been changed and there has been no opportunity to introduce any new failure mods for the equipment and the probabilities of accidents remain unchanged.
- III. No. The addition of this information to the SSES FPRR does not create or result in any physical change to the plant procedure or training. The change has no affect on the design or operation of the plants fire protection systems. Because there is no change to the plant, procedures or training, any margin of safety identified in Technical Specifications is unaffected by this change.

**SER NO: 01-116**

**CROSS REFERENCE: NL 99-052, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This action revises the COMPLETION TIME to TRO 3.3.5 of the Technical Requirements Manual to address required actions when a channel or channels of the Loose Part Monitoring System can not be returned to service in 30 days.

**SUMMARY:**

- I. No. The Loose Parts Monitoring System is a non-safety system which provides supplemental diagnostic information to the operator. The loss of the Loose Parts Monitoring System is not used in the detection or mitigation of any accident described in the FSAR. The failure or malfunction of the Loose Parts Monitoring System will not initiate any accident or transient evaluated in Chapters 6 or Chapter 15 of the FSAR. The failure or malfunction of the Loose Parts Monitoring System will not affect any system important to safety. Therefore it can be concluded that the loss of the Loose Parts Monitoring System or any of its components for over 30 days will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The Loose Parts Monitoring System is an audio information system which is not used in any Chapter 6 or Chapter 15 accident or transient analysis. The Loose Parts Monitoring System does not affect or interface with any safety or non-safety system which is an initiator or mitigation to any accident or transient analyzed in the FSAR. Therefore the loss of the Loose Parts Monitoring System or any of its components for over 30 days does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR.
- III. No. The Loose Parts Monitoring System does not affect or interface with any safety or non-safety system which is an initiator or mitigator to any accident or transient analyzed in the FSAR. The Loose Parts Monitoring System does not interface with or impact any system or component which is controlled by the Unit 1 or Unit 2 Technical Specifications. The Technical Requirements Manual controls the operability of the Loose Parts Monitor System. Therefore, it can be concluded that the loss of the Loose Parts Monitoring System or any of its components for over 30 days does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-117**

**CROSS REFERENCE: DCP 99-3082, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to replace the failed, Unit 2 Phase A Westinghouse Main Transformer (2X101A) with a spare ABB transformer and remove the old failed Westinghouse transformer which eliminates spare transformer 2X101 D.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR since the new transformer is functionally equivalent to the one replaced, and no system interfaces are adversely affected.
- II. No. No system interfaces are adversely affected nor new ones created. The replacement transformer is functionally equivalent to the one being replaced. The design is performed in accordance with applicable codes and standards. Thus, there were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.
- III. No. The Main Transformers, nor the Fire Protection for the Main Transformers, is governed by Technical Specifications. The Main Transformers and their Fire Protection are not directly interlocked with any other Technical Specification related system or component to initiate action(s). Operability of the Safety Related 125 VDC System is governed by Technical Specification Sections 3.8.4, 3.8.5, 3.8.7 and 3.8.8. The bases for operability of the DC system is to "...provide the AC emergency power system with control power" and to "...provide both motive and control power to selected safety related equipment." Since the additional loading associated with the ABB Transformer annunciator and control logic is acceptable, the proposed action does not reduce the margin of safety associated with the 125 VDC system. The proposed action does not affect the Technical Specification so there is no change in the margin of safety defined in the basis for any Technical Specification.

**SER NO: 01-118**

**CROSS REFERENCE: NL-99-039, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed change will allow raising the field setpoint for plant Area Radiation Monitors (ARMs) that will be affected by area dose rate increases as a result of implementing Hydrogen Water Chemistry (HWC) to a level which will not cause ARM alarms under normal plant operations.

**SUMMARY:**

- I. No. The ARM system performs no safety or operational function other than alarm and indication and does not directly interface with any other system other than its power source. As such, this system does not contribute to the probability of occurrence of an accident. The consequences of an accident are not changed by the proposed field setpoint change because it has no direct effect on any other equipment.
- II. No. The proposed field setpoint change does not affect the ability of the ARM or any other equipment to function and does not affect potential malfunctions within the ARM system. The ARM system does not directly interface with any equipment important to safety. The ARM system does not perform an active function other than alarm and indication. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR.
- III. No. The only ARMs covered in Technical Specifications are criticality monitors. The ARMs affected by the proposed field setpoint change are not criticality monitors. As a result, this change does not affect the margin of safety as defined in the basis of any Technical Specification.

**SER NO: 01-119**

**CROSS REFERENCE: DCP 98-3013C, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on the raceways in Fire Zone 2-5A-N within Fire Area R-2B, Fire Zones 2-5A-S and 2-5C within Fire Area R-2A, Fire Zones 2-5A-W and 2-4A-W within Fire Area R-2A-2B and Fire Zone 2-5B within Fire Area R-2D.

**SUMMARY:**

- I. No. The installation of a fire barrier upgrade system on raceways listed in Attachment No. 1 does not affect any of the postulated initiating events identified in Chapter 6 and 15 of the FSAR, the Design Assessment Report, the current Reload Analysis, NUREG 0776 or FPRR. The interfacing system evaluations performed as part of the installation of the fire barrier upgrade system determined that there was no impact to equipment important to safety. The consequence of an accident is not affected by the proposed action. The addition of the fire barrier upgrade system ensures the ability to achieve and maintain safe shutdown in accordance with the requirements of 10 CFR 50 Appendix R. The function of the circuits in the raceways where the fire barrier upgrade system is added does not change. Single failures of raceways are not postulated since the raceways are passive components which are designed for all of the design basis events. For an Appendix R fire in Fire Zone 2-5C, 2-5A-N (Stairwell 214) and 2-6A the upgrade system assures operability of the required circuits and prevents malfunction of the equipment required for achieving and maintaining the Appendix R safe shutdown.
- II. No. Chapter 6 and 15 of the FSAR, the Design Assessment Report, the current Reload Analysis and NUREG-0776 and its supplements were reviewed to determine if the proposed action had the potential of creating a postulated initiating event which was not within the spectrum of events for which transients or anticipated operational occurrences and accident conditions were analyzed. The review did not identify a postulated initiating event which would create the possibility for an accident of a different type. The interface system evaluations determined the acceptability of the fire barrier upgrade system impact on the raceway support system, the combustibility loading of the fire zone(s). The ampacity derating of power cable(s) and the structural integrity of the barrier(s) during and after a seismic event. Thus, the addition of the fire barrier upgrade system to raceways does not create a possibility for an accident or malfunction of a different type.
- III. No. The operability of the fire barrier system on the raceways is governed by the Technical Requirements Manual (TRM) Section 3.7.3.7 entitled "Fire Rated Assemblies" which is part of the SAR. The bases for operability of the fire barrier system is to assure operability of the circuits contained within the raceway during an Appendix R fire. The proposed action does not reduce the margin of safety associated with the fire barrier system. The proposed action does not affect the Technical Specification so there is no change in the margin of safety defined in the basis for any Technical Specification.

**SER NO: 01-120**

**CROSS REFERENCE: DCP 99-3038B and 99-3038C, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This change establishes Operational Safeguards Response Evaluation (OSRE) Defensive Fighting Positions and Door Relocation Modifications.

**SUMMARY:**

- I. No. The Physical Security Plan and the design basis accidents listed in Chapter 15 of the FSAR were reviewed for potential impact by this change. The modifications performed do not adversely effect any plant safety related system. The structural integrity of the safety related buildings and missile barrier is not compromised by the additional loads generated by the defensive fighting position attachments. These changes do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. These modifications will not impact any safety related equipment and they do not create the potential for a new type of malfunction. The Susquehanna SES Physical Security Plan describes actions to be undertaken during construction projects at SSES. The security force will provide any necessary compensatory measures as deemed appropriate during implementation of these modifications.
- III. No. The plant security system is not addressed in any Technical Specification and since these changes do not adversely affect any plant safety systems, the margin of safety as defined in the basis for the Technical Specifications remains unchanged. Therefore, these modifications do not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-121**

**CROSS REFERENCE: DCP 97-9031, Unit N/A**

**DESCRIPTION OF CHANGE:**

This change installs a pressure relief valve on river intake structure air receiver OT806.

**SUMMARY:**

- I. No. Sections of the SAR dealing with the system were reviewed. These included FSAR Section 9.3.1.4, the SSES Fire Protection Review Report and the SER (9.3.1). No accidents evaluated in the SAR relate to the River Intake Structure Compressed Air System (RISCAS). The referenced FSAR section states that failure of the RISCAS will not endanger the operation of any safety-related instruments or controls. The system itself is non safety-related. It interfaces only with plant systems within the Intake Structure, and no new interfaces are created with other systems. This modification is designed to the Codes and Standards set forth in FSAR Table 3.2-1, namely ASME Code Section VIII, Division I and ANSI B31.1, the Power Piping Code. There is no change to the design function or operation of the system as described in the SAR, Sections 9.3.1.4.1 and 9.3.1.4.2. Therefore, this modification does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The possible failure modes of the existing air receiver and the new pressure relief valve were evaluated for new impacts upon plant equipment and previously evaluated initiating events evaluated in the SAR in Sections 15 and 15A. No new impacts were identified since there are no functional changes to plant components as originally designed, and the modified system configuration conforms to the original construction Codes and Standards. The new relief valve (especially its set pressure and relieving capacity) and its connection to the air receiver shall be designed to meet all ANSI B31.1 piping design and ASME Code Section VIII requirements as well as system parameters. The new valve has been chosen for its suitability to this application. If the new valve were to malfunction and not relieve pressure in the intake structure air receiver upon the application of an external heat source, potential malfunctioning of the RISCAS could occur, but there would be no adverse effect to plant safety. Therefore, the proposed activity does not create the possibility of a malfunction or result in an accident of a different type than any previously evaluated in the SAR.
- III. No. This modification affects only the RISCAS which is not mentioned in the bases of any Technical Specification. Based upon a review of the several parameters added to the system as a result of this modification; e.g., safety valve set point or capacity, none serve as the bases for any margin of safety as presented in the Technical Specification. In addition, no system or component is adversely affected by this modification. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification.



**SER NO: 01-122**

**CROSS REFERENCE: SCP E98-1069, Unit 1**

**DESCRIPTION OF CHANGE:** The scope of SCP E98-1069 changes the overload heater coil for motor-operated valve (MOV) HV-155F042.

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The thermal overload replacement will not affect the safety function of the valve but will increase the motor terminal voltage and ensure that sufficient torque is available under design basis conditions to close or open the valve. Although the protective function of the thermal overload heater is operable only during valve testing and maintenance, the replacement of the thermal overload provides greater assurance of proper valve operation under normal or accident conditions. There is no increase in the probability of an occurrence of an accident as evaluated in FSAR Section 6.3.2.2.1 and Chapter 15.
- II. No. The SCP to replace the thermal overload heater of HV-155F042 will not create any new accident or malfunction not previously evaluated in the SAR. The active safety function of the valve is to close automatically on High Pressure Coolant Injection (HPCI) isolation or to open automatically to transfer pump suction to the suppression pool if the CST water level is low or the suppression pool level is high, as described in FSAR Section 6.3.2.2.1. The functional performance of the valve will not be adversely altered by the replacement of the overload heater coil and will be improved as a result of the increased motor terminal voltage and torque. The new thermal overload heater is identical in design and manufacture to that being replaced except for its higher operating current range. Therefore, the possibility of a different type of accident or malfunction will not be created.
- III. No. The integrity of the valve pressure boundary and the valve seat leakage rate will not be affected by the replacement motor thermal overload. The modification will not alter any of the valve actuation circuitry. The Technical Specifications Bases, Table B 3.6.1.3-1 states that the HPCI primary containment isolation valve HV-155F042 shall be operable with a maximum isolation time of 90 seconds. The valve stroke time will remain within the specified time required to maintain valve operability.

HV-155F042 is a primary containment isolation valve as described in Technical Specifications Bases B3.6.1.3. The modification improves valve performance by providing a higher motor terminal voltage and increasing the available motor torque. The proposed action will not alter the operation of the valve. It will not affect the HPCI system's ability to provide adequate core cooling, to limit loss of coolant to prevent rapid depressurization of the reactor vessel and to maintain containment isolation capability. Thus, the margin of safety as defined in the basis for any Technical Specifications bases will not be reduced.

**SER NO: 01-123**

**CROSS REFERENCE: NL-96-055, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This evaluation considers the integration of the Transnuclear West process previously evaluated under 10CFR72 with the spent fuel transfer and storage process using NUHOMS dry storage system.

**SUMMARY:**

1. No. The Independent Spent Fuel Storage Installation (ISFSI) is located outside all facilities required for plant operation or safe shutdown and does not require or interface with any existing systems used for mitigation of accidents.

The only actions required for ISFSI operation are the daily temperature monitoring activities and the performance of periodic inspections. A review of Chapters 9 and 15 of the FSAR was performed and the operation of the ISFSI and the implementation of the spent fuel transfer process do not increase the probability of an accident previously evaluated.

Evaluation of the Fuel Pool Cooling and Cleanup System (FPCCS) with the Cask Storage Pit gates closed has been performed and concludes that the Cask Storage Pit gates may be closed for the duration of the spent fuel transfer campaign of 1999, provided that several actions are in place prior to closing the Cask Storage Pit gates. This ensures that adequate Spent Fuel Storage Pool cooling capability exists and in the event of an accident, contingencies are in place to provide the means for opening the Cask Storage Pit gates to cross-tie the Spent Fuel Storage Pools. Therefore, the probability and consequences of a loss of SFP cooling event with isolated SFPs is no worse than that with cross-tied pools.

Parameters and systems affected by the spent fuel transfer process have no effect on the radiological consequences of accidents discussed in the FSAR Chapter 15. Therefore, there are no new failure modes associated with the operation of the ISFSI or implementation of the spent fuel transfer process that can be an initiating event for an accident evaluated in the FSAR.

In summary, the operation of the ISFSI and the implementation of the spent fuel transfer process as it relates to 10CFR50 do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. An evaluation was performed for a fuel assembly drop onto/into the Dry Shielded Canister (DSC) during loading/unloading spent fuel into the DSC. The results of this evaluation show that the existing SSES fuel handling accident remains the bounding analysis.

Several heavy load lifts directly over spent fuel in the Transfer Cask/DSC are required and comply with NUREG 0512/ANSI N14.6 single failure criteria. Single failure proof rigging is implemented during these lifts. The Loads Control Program (Technical Requirements Manual Sections 3.12.2 and 3.12.3) for both Heavy Loads and Light Loads are maintained for movement of loads in the proximity of irradiated fuel during the spent fuel transfer process.

It is concluded that isolating the Spent Fuel Storage Pools by closing the Cask Storage Pit gates during the spent fuel transfer process and the operation of the ISFSI and implementation of the spent fuel transfer process as it relates to 10CFR50 does not create the possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Technical Requirements Manual Section 3.11.3 on Radioactive Effluents requires the annual radiological dose to any member of the public be limited to less than or equal to 25 mRems to the total body or any organ except the thyroid which is limited to less than or equal to 75 mRems. The ISFSI is located within the site protected area and results in a new source which is included in the analysis required by Technical Requirements Manual Section 3.11.3.

An evaluation considering all sources from both plants operating at 100% power including the maximum amount of spent fuel stored at the ISFSI shows that the limits of Technical Requirements Manual Section 3.11.3 are not exceeded. Therefore, there is no reduction in the margin of safety and no change is required for the Technical Specifications or Technical Requirements Manuals as a result of the operation of the ISFSI and implementation of the spent fuel transfer process at SSES. The plant Technical Specifications and Technical Requirements Manuals were reviewed for potential impact relative to the operation of the ISFSI and the implementation of the spent fuel transfer process at SSES. Specifically Technical Requirements Manual Section 3.9.3 (Refueling Platform), Sections 3.11.2 and 3.11.3 (Radioactive Effluents) and Sections 3.12.1 through 3.12.3 (Loads Control Program) were reviewed. This review concluded that there is no reduction in the margin of safety as defined in the basis for related Technical Specification or Technical Requirements Manuals..

**SER NO: 01-124**

**CROSS REFERENCE: DCP 98-3014C, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Zones 1-5A-S, 1-5A-W and 1-5B.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 1-5A-S, 1-5A-W or 1-5B. Calculation demonstrates that additional compensating factors permit the installation of one hour rated fire barriers which provides the equivalent level of assurance as those requirements of 10 CFR 50 Appendix R, Section III.G. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 1-5A-S, 1-5A-W or 1-5B.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. Acceptance of one hour fire barriers in Fire Zone 1-5B as analyzed by Calculation does not result in a change to the Technical Specifications. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-125**

**CROSS REFERENCE: DCP 97-9114, 97-9115, Rev. 1, Unit 1 and 2**

**DESCRIPTION OF CHANGE:** Replacement of Neutron Flux Monitoring System (NMS) recorders and selector switches.

**SUMMARY:**

- I. No. The proposed action does not affect any of the postulated initiating events for which transients or anticipated operational occurrences and accident conditions (FSAR Sections 7.1.2a.1.4, 7.2.1.1.4.2a), 7.2.2.1.2.3.1.2, 7.2.2.1.2.3.1.7, 7.6.1a.5, 7.6.1a.5.6.1.1(4), Tables 3.2.1 & 7.1-1, and Chapter 15) were analyzed. The proposed action does not involve a precursor of, or a contributor to, any evaluated accidents involving offsite dose. It does not create a condition that could cause accident propagation. This change has no affect on any accident scenarios or malfunction of equipment important to safety, and has no effect on radiological consequences.

The proposed action does not affect the post-accident neutron flux monitoring function required by Reg. Guide 1.97 provided by the conventional NMS which meet the alternate criteria established in GE NEDO-31558. The proposed change will allow operators to monitor and record all of the input channel signals (power level) directly on the replacement recorder(s) without using the selector switches, and enhance the overall NMS performance and reliability. This change does not adversely affect any safety-related plant systems or components. These modifications will not increase challenges to safety systems assumed to function for any accident analysis.

- II. No. Failure of this system will not cause the operators to take unanalyzed actions, nor will it cause the operator to commit errors of commission or omission.

The proposed action provides electrical isolation between the APRM/IRM/RBM system Class 1E analog interface signal circuits and non-Class 1E replacement recorders by utilizing the existing Class 1E qualified analog isolators per separation requirements. Therefore, the recorder failure will not degrade the safety-related APRM and IRM protective trip unit outputs.

The analysis of all the Affiliated circuits for NMS show that the failure of the non-Class 1E instruments (e.g., control room meters, recorders and process computers) does not degrade the Class 1E circuits below an acceptable level and the subject analog interface circuits meet the requirements of IEEE-279-1971, even without isolators installed. In all cases, the failure of the non-Class 1E control room meters, recorders and process computers has no adverse effect on the Class 1E circuits. The replacement Westronics recorder(s) uses a digital microprocessor and is a high impedance device.

No new failure modes result from these modifications. The replacement recorders are of high quality, and have performed adequately in other applications. Design, installation and testing of the final configured system, in accordance with accepted plant

procedures and standards, precludes the possibility of a malfunction of a different type. The proposed modifications to the panels do not adversely impact the dynamic qualifications of the subject existing panels. The proposed change does not, therefore, create the possibility of an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Tech Spec Section 3.3.1.2, "SRM Instrumentation", specifies minimum number of Source Range Monitor (SRM) channels for operability. The SRMs have no safety function and are not assumed to function during any FSAR design basis accident or transient analysis. However, the SRMs provide the only on-scale monitoring of neutron flux levels during startup and refueling. The proposed action maintains the design basis function of the Neutron Flux Monitoring as delineated in the above mentioned Technical Specification.

The existing NMS recorders and indicators are used as the primary indication of neutron flux and are included in emergency operating procedures and training. The conventional NMS provides neutron flux recording capabilities at SIP as well as providing inputs to the plant computer. The proposed action maintains the design basis function of the post-accident neutron flux monitoring function required by Reg. Guide 1.97, via Average Power Range Monitor (APRM) channels A-F. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-126**

**CROSS REFERENCE: NL-98-037, Rev. 2, Unit 1**

**DESCRIPTION OF CHANGE:** This evaluation supports the Unit 1 Cycle 11 Core Operating Limits Report (COLR), core loading operation of the reload and operation with either zero or one main turbine bypass valve inoperable.

**SUMMARY:**

- I. No. Operation with only four operable turbine bypass valves does not physically change or affect any plant components. The only impact on plant operation of this Core Operating Limits Report change is to allow the use of less restrictive Minimum Critical Power Ratio (MCPR) operating limits, thus allowing a full power to be attained in the event one turbine bypass valve is inoperable.

The revised Operating Limits were generated assuming only four turbine bypass valves are operable. Thus, the applicable criteria for the events are still met. In addition, related licensing analyses as well as other PP&L scope analyses were found to be unaffected by operation with only four bypass valves operable.

The applicable sections of the FSAR related to the licensing events that were evaluated for Unit 1 included Chapters 5, 6, 9, and 15 of the FSAR.

With the exception of core stability, for which changes in the core loading itself can influence the probability of occurrence of core instabilities, the core loading will not affect the failure mode of any plant system or component, nor will it affect the probability of occurrence of any transient or accident initiating event.

Calculations were performed for both U2C8 (18-month cycle / 9x9-2 fuel plus four LUAs) as well as U2C9 and U1C11 (24-month cycle I W-2 and ATRIUM-10 fuel plus four LUAs). These calculations demonstrated that U2C8, U2C9, and U1C11 exhibit similar stability characteristics. Thus, the currently implemented stability guidelines which PP&L committed to the NRC to utilize are also applicable to U1C11. Therefore, there is no increase in either the probability or consequences of an instability event as a result of the U1C11 core loading.

The FSAR Chapter 15 potentially limiting anticipated operational occurrences were evaluated using methodology which has been NRC approved (and included in the Technical Specifications). The results of these events are used to determine the Minimum Critical Power Ratio Operating Limits (MCPROLs). Thus, the MCPR Safety Limit will not be violated for these events. In addition, these events were examined to assure that the transient Linear Heat Generation Rate (LHGR) limit (to protect against 1% cladding strain and centerline melt) was not violated. Therefore, no fuel failures or dose consequences are expected from these events.

Design Basis Accidents were evaluated. The proposed changes to the core loading do not cause the consequences of these accidents to exceed criteria previously evaluated and approved by the NRC.

Analyses were performed which demonstrate that U1C11 has adequate shutdown margin, and that the Standby Liquid Control System (SLCS) can provide sufficient boron to keep the core subcritical (cold, xenon-free). Also, analyses demonstrated that the new fuel vault and spent fuel pool meet their acceptance criteria and remain subcritical.

All the above described transients, accidents, reactivity related assessments have been evaluated for U1C11 (covering the ATRIUM-10 fuel, 9x9-2 fuel, and four SVEA-96+ LUAs) to assure that applicable acceptance criteria are met.

The results of all the U1C11 analyses demonstrate that all applicable criteria are met for the U1C11 core. Therefore, there is no increase in the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. Operation with only four operable turbine bypass valves was allowed previous to this Core Operating Limits Report change. The only difference is that less restrictive MCPR operating limits are now used when one turbine bypass valve is inoperable. Thus, this change does not: 1) create any new or different initiating events, failures, or failure modes (which have not been previously considered or evaluated; 2) create the possibility of a previously unevaluated operator error or a new single failure; or 3) make any accidents or malfunctions previously considered incredible any more credible; and 4) directly or indirectly affect any plant system, equipment, or component.

The Unit 1 Cycle 11 core loading does not directly or indirectly affect any plant system, equipment, or component (other than the core itself), and therefore does not affect the failure modes of any of these. The U1C11 COLR establishes the correct operating limits for the U1C11 core, thus assuring that applicable acceptance criteria will be met. Therefore, these changes do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The applicable Technical Specification Sections relating to operation with one bypass valve inoperable include 3.2 and 3.7.

The U1C11 core loading and associated operating limits do not jeopardize or degrade the function or operation of any plant system or component governed by Technical Specifications. The U1C11 analysis provides a set of more restrictive U1C11 operating limits which allow operation with a single turbine bypass valve inoperable that will maintain an equivalent margin of safety as currently defined in the basis of the applicable Technical Specification sections. All transients, accidents, and reactivity related assessments have been evaluated for U1C11 to assure that applicable acceptance criteria are met.



Additional applicable Technical Specification Sections include 3.2 and 3.4.

The U1C11 core loading and associated operating limits do not jeopardize or degrade the function or operation of any plant system or component governed by Technical Specifications. The U1C11 analysis provides U1C11 operating limits for the SPC ATRIUM-10 and 9x9-2 assemblies and the SVEA-96+ LUAs that will maintain an equivalent margin of safety as currently defined in the basis of the applicable Technical Specification sections.

All transients, accidents, reactivity related assessments have been evaluated for U1C11 (covering the ATRIUM-10 fuel, 9x9-2 fuel, and four SVEA-96+ LUAs) to assure that applicable criteria are met.

The results of these analyses demonstrated that the applicable acceptance criteria for these evaluations are met for U1C11. Therefore, this change does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-127**

**CROSS REFERENCE: NL-99-051, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action changes TS Bases 3.7.6 for Unit 1 to state that the Safety Analyses determines the number of main turbine bypass valves required to be operable in order to declare the Main Turbine Bypass System OPERABLE.

**SUMMARY:**

- I. No. The proposed change does not change any systems, structures, components, setpoints, or tests. Nor does the proposed change modify the requirements or acceptance criteria for testing of the main turbine bypass valves. The proposed changes to TS Bases 3.7.6 allow the Main Turbine Bypass System to be considered OPERABLE as long as the number of operable main turbine bypass valves is greater than or equal to the number of main turbine bypass valves used in the Safety Analyses which will be specified in the COLR. The proposed change maintains consistency between the assumptions of the Safety Analyses and the TS bases.

Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

- II. No. The proposed change does not change any systems, structures, components, setpoints, or tests. Nor does the proposed change modify the requirements or acceptance criteria for testing of the main turbine bypass valves. The proposed change maintains consistency between the Safety Analyses and the TS bases. The changes to the COLR to support the changes will be communicated to Operations.

Therefore, the proposed action does not create the possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The proposed changes to TS Bases 3.7.6 allow the Main Turbine Bypass System to be considered OPERABLE as long as the number of operable main turbine bypass valves is greater than or equal to the number of main turbine bypass valves used in the Safety Analyses which will be specified in the COLR. The proposed changes maintain consistency between the Safety Analyses and the operability requirements for the Main Turbine Bypass System, thereby maintaining the margin of safety that currently exists. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-128**

**CROSS REFERENCE: DCP 98-3014F, Unit 1**

**DESCRIPTION OF CHANGE:**

The scope of this modification is the installation of sprinklers in the Unit 1 Reactor Building elevation 683, Fire Zone 1-5A-W.

**SUMMARY:**

- I. No. The modification will not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The addition of piping and sprinkler heads to Automatic Preaction Sprinkler System PA-151 will not affect the safety function of the system. TRM Basis B3.7.3.2, FSAR Section 9.5.1 and Chapter 15, and FPRR Sections 4.1, 4.4, 4.10, 4.11, 4.12, and 6 have been reviewed in making this determination.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effect of the modification is to increase the area of the facility protected by Automatic Preaction Sprinkler System PA-151. This effect does not create the possibility of a new accident or malfunction. The active safety function is not adversely impacted by the modification. FSAR Section 9.5.1 and Chapter 15, and FPRR Sections 4.1, 4.4, 4.10, 4.11, 4.12, and 6 have been reviewed in making this determination.
- III. No. The modification will not reduce the margin of safety as defined in the basis for any Technical Specifications. The ability of Automatic Preaction Sprinkler System PA-151 will not be adversely affected by the addition of piping and sprinkler heads. The Technical Requirements Manual Sections 3.7.3.1 "Fire Suppression System" and 3.7.3.2 "Spray and Sprinkler Systems" were reviewed in making this determination.

**SER NO: 01-129**

**CROSS REFERENCE: J99-1099/1100, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed action of this setpoint is to lower the Rod Block Monitor (RBM) setpoints for the Intermediate Rod lock, High Permissive, Low Rod Block and Intermediate Permissive.

**SUMMARY:**

- I. No. The proposed changes will not prevent the other functions of the RBM from operating nor will the proposed changes cause those other RBM functions to occur at incorrect levels.

Should any of the proposed setpoint functions occur at lower than expected levels or at higher than expected levels but below the High Rod Block, this will merely cause a rod block. This is a normal operating occurrence and will prevent further withdrawal of a control rod until additional actions take place.

Should any of the proposed setpoint functions occur at higher than expected levels and above the High Rod Block, this is similar to a failure of that same function. However, a failure of any of these functions will not prevent required functions to occur. Therefore, implementation of the proposed setpoints will not increase the probability or consequences of any analyzed accident.

- II. No. The function of the Rod Block Monitor is not being changed by this setpoint change and, therefore, would not create the possibility for a different type of accident caused by a change in function.

Lowering the Low and Intermediate setpoints will result in a slightly longer interval between the High Permissive and High Rod Block. Although it is expected that Operators will maintain vigilance during rod withdrawals, the High Rod Block function will still remain in effect in that interval and generate rod blocks should local power around the selected rod cause a high local power signal. This rod block inhibits further rod withdrawal by the operator.

Changing the Intermediate Permissive, Low Rod Block, High Permissive and Intermediate Rod Block setpoints will not change the function of the RBMs or change the value at which limiting actions take place and will not, therefore, create the possibility of a different accident or malfunction.

- III. No. Tech Spec Section 3.3.2.1 provides requirements for the Rod Block Monitor systems. In addition, Table 3.3.2.1-1 requires the High, Inop and Downscale Rod Block functions to be surveilled. A review of the bases for the rod block functions and considerations have determined that they do not have dependence on actuation of the Low and Intermediate Rod Blocks or the value of those rod block setpoints to perform their design functions. Therefore, the margin of safety provided by the Tech Spec functions will not change.

**SER NO: 01-130**

**CROSS REFERENCE: NL-99-028, Unit N/A**

**DESCRIPTION OF CHANGE:**

As a part of the Current Licensing Basis review of the FSAR, FSAR Section 3.7b titled "Seismic Design", was revised so that it is technically and editorially accurate. The Primary Containment seismic response plots based on the fixed base model were replaced with that based on the flexible base model. Unnecessary comparisons of results from the fixed base and flexible base models were deleted.

**SUMMARY:**

- I. No. The changes made to FSAR Section 3.7b do not affect any of the accidents evaluated in FSAR Chapter 15. The qualification of the Seismic Category I structures and enclosed equipment documented in FSAR Section 3.7b are unchanged and, therefore, the changes do not affect how any of the structures and equipment discussed are credited in the evaluation of any such accidents.

The revision of FSAR Section 3.7b to reflect the results of the flexible base model of the Primary Containment is more realistic since it takes into account proper soil structure interaction effects by considering the stiffness of the rock site. This revision does not compromise the integrity of the Primary Containment nor does it impact its ability and the ability of equipment housed within to perform their functions.

- II. No. The changes made to FSAR Section 3.7b improve clarity, focus, accuracy and maintainability of the section in accordance with the guidelines set forth in NEI 98-03 "Guidelines for Updating Final Safety Analysis Reports". These changes do not introduce new accident or malfunction scenarios not considered in the accident analyses presented in the FSAR.
- III. No. The Revision of FSAR Section 3.7b does not affect any basis to any Technical Specification.

The editorial corrections, removal of excessively detailed text, tables and figures, and removal of the fixed base and flexible base Primary Containment model discussions do not compromise the existing seismic design of the Seismic Category I structures and seismic qualification of the enclosed equipment. Therefore, there is no reduction in margins of safety.

**SER NO: 01-131**

**CROSS REFERENCE: NL-99-029, Unit N/A**

**DESCRIPTION OF CHANGE:**

As a part of the Current Licensing Basis review of the FSAR, FSAR Section 3.10a Entitled "Seismic Qualification of Seismic Category I NSSS Instrumentation and Electrical Equipment", was revised so that it is technically and editorially accurate.

**SUMMARY:**

- I. No. The changes made to FSAR Section 3. 10a do not affect any of the accidents evaluated in FSAR Chapter 15. The qualifications of the components discussed in FSAR Section 3.10a are unchanged and, therefore, the change does not affect how any of the components discussed are credited in the evaluation of any such accidents. Excessive details that are not necessary to the SAR were deleted to reduce excessively detailed text in accordance with NEI 98-03 "Guidelines for Updating Final Safety Analysis Reports".

A detailed investigation of the control panels deleted from Table 3.10a-2 concluded that these panels do not exist at SSES.

- II. No. The changes made to FSAR Section 3.10a improve the clarity, focus and accuracy of the section. The editorial corrections, removal of sample problems, and the references made to IEEE 344 for seismic qualification do not introduce any new accident scenarios not considered in the accident analyses presented in the FSAR.
- III. No. The revision of FSAR Section 3.10a does not affect any basis for any Technical Specification.

The dynamic qualifications discussed in FSAR Section 3.10a are not changed by the revision of this section. The abilities/qualifications of the components to withstand the various conditions they are designed for are not compromised by this revision. Therefore, there is no reduction in margins of safety.

**SER NO: 01-132**

**CROSS REFERENCE: NL-99-0558, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This evaluation evaluates the use of a boat in the spray pond for chemical treatment and inspection purposes.

**SUMMARY:**

- I. No. The spray pond Ultimate Heat Sink (UHS) is described in detail in section 9.2.7 of the FSAR, with discussion of the effects of maximum storm, tornado and earthquake discussed in sections 2.4.2.3, 2.4.8 and 3.7. The major potential for system damage from storm are considered to be loss of water inventory due to earthquake or tornado. It is acknowledged that the spray risers and nozzles may be damaged by high winds and tornadoes, but because of the system design and divisionalization, damage to the nozzles can be accommodated. The potential damage caused by the boat or motor is bounded by the high winds and/or tornadoes themselves. In addition, it is highly unlikely that a boat would be placed on the spray pond surface under conditions when a tornado may occur. Therefore, any increase in potential damage caused by placing a boat on the spray pond surface is bounded by the effects on the worst case storm already analyzed.
- II. No. The use of a boat in the spray pond will not result in an accident of malfunction of a different type than previously evaluated in the SAR. The boat and/or motor may generate lost parts or may leak or spill oil and/or gasoline into the UHS water. Such events are highly unlikely and have been evaluated in the SAR. Section 9.2.7.1 indicates that the UHS has the capability of performing its design function following an oil spill. Lost parts also do not create a malfunction or accident different than described. With the screens in place it is unlikely for parts to reach the pumps. If a pump were damaged, the loss of an entire division is bounded in an accident described in the SAR.
- III. No. The margin of safety for the UHS/Residual Heat Removal Service Water (RHRSW)/Emergency Service Water (ESW) systems is defined in section 3.7.1 and 3.7.2 of the Technical Specifications. The margin of safety for the UHS system is defined in terms of the minimum fluid capacity and maximum temperature allowed for the UHS to perform its intended function. The proposed action affects neither of these limits.

The margin of safety for the ESW and RHRSW system is based on the number of available subsystems. The proposed action, under the potential of severe wind damage, may increase the amount of damage to the spray nozzles, thereby reducing the number of available ESW/RHRSW systems. However, the potential number of spray nozzles damaged by the boat as missile is bounded by the amount of potential nozzle damage from the storm itself. Therefore, the Technical Specification margin of safety is not affected by the proposed evolution.

**SER NO 01-133**

**CROSS REFERENCE: DCP 98-3013A, Unit 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on the raceways in Fire Areas 11-2B and R-2A-2B.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 2-1A, 2-3B-N, 2-3B-W or 2-6A. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 2-1A, 2-3B-N, 2-3B-W or 2-6A.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or TRM. The margin of safety as defined in the basis of the Technical Specifications or TRM is not reduced by the proposed action.



**SER NO: 01-134**

**CROSS REFERENCE: NL-99-053, Unit 1 and 2**

**DESCRIPTION OF CHANGE:** This change increases the alarm setpoints on the Spent Fuel Pool and New Fuel Storage Vault Criticality Monitors from  $\leq$  mR/hr to  $\leq 107$  mR/hr.

**SUMMARY:**

- I. No. The proposed action does not increase the probability of occurrence or the consequences of an accident or a function of equipment important to safety as evaluated in the SAR. The criticality monitors are not safety related and do not provide any control function for any safety system or to any safety related component. The proposed setpoint changes do not impact any of the Engineering Safety Functions or the Accident Analysis in the FSAR. The monitors do provide a local audible alarm and remote alarm indication in the Control Room on a criticality event in the Spent Fuel Pool or the New Fuel Storage Vault. The proposed setpoint changes are in compliance with 10CFR70.24 Criticality Accident Requirements, (a) (1); therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety,

Reference FSAR, Section 6.0, Engineering safety features, Section 12.3.4, Area Radiation and Airborne Radioactivity Monitoring Instrumentation. Table 12.3.7, Area Radiation Monitoring System Unit 1,2 & Common. Section 9.1.2.1.1.2. Safety Design Bases, Section 15.0 Accident Analysis and Section 15A.6.2.3.14, Storage Fuel Shielding, Cooling, and Reactivity Control.

- II. No. The proposed action does not create a possibility for an accident or malfunction of a different type than evaluated in the SAR. The function and operation of the criticality monitors are not changed by the proposed action. Per the FSAR, alarm setpoints may vary depending on operational considerations and will be determined by measured radiation levels in accordance with controlled station procedures. Radiation levels are not affected by the proposed setpoint changes. Calculations support the proposed setpoint changes and assure compliance with 10CFR70.24 Requirements; therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than evaluated in the SAR.
- III. No. The proposed action does not reduce the margin of safety, as is defined in the basis for any Technical Specification. The Technical Specifications do not contain any specific requirements regarding criticality monitors. The Technical Requirements Manual has been reviewed with respect to the requirements contained in 10CFR70.24 (a)(1) and no technical basis is affected by the proposed setpoint changes. TRM Section 3.3.1 Radiation Monitoring Instrumentation and Table 3.3.1-1 Radiation Monitoring Instrumentation provide the requirements and alarm setpoints for the criticality monitors. The proposed setpoint changes increase the alarm setpoint from  $\leq 15$  mR/hr, as listed in the TRM, to  $\leq 107$  mR/hr. The proposed action is in compliance with 10CFR70.24, Criticality Accident Requirements, (a) (1) as supported by calculations. The margin of safety as defined in any Technical Specification is not reduced.

**SER NO: 01-135**

**CROSS REFERENCE: NL-99-013, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

Milk sampling location 7C1 is replacing location 12B3 on Page 7 of 10 of FORM ST099-004-4.

Additional changes are being made to ST-099-004 at the same time.

**SUMMARY:**

- I. No. These changes involve corrections to Radiological Environmental Monitoring Program (REMP) surveillance procedure ST-099-004 and a change to the REMP portion of the Offsite Dose Calculation Manual (ODCM), ODCM-QA-008. These changes have no effect on any equipment or its operation, safety-related or otherwise. Thus, no accidents as described in the SAR could be caused, in whole or in part, or could be exacerbated by these changes; therefore, no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety can occur.
- II. No. These changes involve corrections to REMP surveillance procedure ST-099-004 and a change to the REMP portion of the ODCM, ODCM-QA-008. Performance of this surveillance involves determining compliance with the REMP sampling and analysis requirements of TR 3.11.4.1. Monitoring the environment has no impact on the operation of the SSES nor does the determination of whether or not monitoring requirements have been satisfactorily achieved. Thus, no accidents or malfunctions as described in the SAR could be caused, in whole or in part, or could be exacerbated by these changes.
- III. No. These changes to ST-099-004 and ODCM-QA-008 do not affect any plant physical parameters, instruments, response times, redundancy and/or independence of components. Therefore, no margin of safety is reduced.

**SER NO: 01-136**

**CROSS REFERENCE: NL-99-045, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This evaluation provides an evaluation of the following changes being made to the Fire Protection Section 3.7.3 and B 3.7.3 of the Technical Requirements Manual:

- 1) Editorial corrections/additions
- 2) PA-012 Compensatory Action
- 3) Fire Zone descriptions/subdivisions
- 4) Fire Detection Instrumentation surveillance frequency
- 5) Specified Area and Inaccessible Area for Firewatch

**SUMMARY:**

- I. No. There are no physical changes as a result of this TRM change. Therefore, this change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment.

The change in frequency of surveillance TRS 3.7.3.8.1 and 3.7.3.8.2 from 6 months to 12 months will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment. The National Fire Protection Association's consensus code, NFPA 72, National Fire Alarm Code, has determined that the failure history of fire detection instrumentation is such that functional testing is only deemed necessary on an annual basis.

The change in compensatory action for PA-012 does not affect any probability of occurrence or the consequences of an accident or malfunction of equipment. PA-012 no longer protects redundant systems or components.

The Fire Zone description/subdivision changes are more conservative than the existing TRM and are in accordance with the Fire Protection Review Report.

- II. No. There no physical changes as a result of this TRM change. This change does not create the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.

The change in frequency of surveillance TRS 3.7.3.8.1 and 3.7.3.8.2 from 6 months to 12 months will not create possibility for an accident or malfunction of a different type than previously evaluated. The National Fire Protection Association consensus code, NFPA 72, National Fire Alarm Code, has determined that the failure history of fire detection instrumentation is such that functional testing is only deemed necessary on an annual basis.

The change in compensatory action for PA-012 does not create a possibility for an accident or malfunction of a different type than previously evaluated. PA-012 no longer protects redundant systems or components.

The Fire Zone description/subdivision changes are more conservative than the existing TRM and are in accordance with the Fire Protection Review Report.

- III. No. There are no physical changes as a result of this TRM change. This TRM change does not reduce the margin of safety as defined in the basis for any Technical Specification. The Fire Zone description/subdivision changes are more conservative than the existing TRM and are in accordance with the Fire Protection Review Report.

The change to the Compensatory Action for PA-012 from a Continuous Firewatch to an Hourly Patrol is based upon the Appendix R Safe Shutdown Analysis.

The change in surveillance frequency for the fire detection instrumentation from 6 months to 12 months will not reduce the margin of safety for fire detection. The National Fire Protection Association" consensus code, NFPA 72, National Fire Alarm Code, has determined that the failure history of fire detection instrumentation is such that functional testing is only deemed necessary on an annual basis..

**SER NO: 01-137**

**CROSS REFERENCE: NL-99-048, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This Evaluation evaluates changes to the Technical Requirements for Fire Detection Instrumentation, TR 3.7.3.8, to incorporate an allowed performance time (APT) note that allows a delay before entry into the associated Conditions and Required Actions for equipment made inoperable solely for the performance of required testing.

**SUMMARY:**

- I. No. Operation with a fire detection instrument inoperable for up to 15 minutes for the purpose of performing required surveillance, without implementing the TRO Required Actions, will not affect the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety.

None of the affected Functions perform an essential monitoring or protective function, and none control processes directly associated with initial conditions associated with any transient or accident analysis. The changes will not require the performance of any new test or experiments not described in the SAR. The change will not introduce any new plant condition by operating with a detector inoperable. TRO Required Actions are delayed for 15 minutes. The allowance is less than Allowed Out of service Times. The probability of occurrence of an accident or malfunction of equipment important to safety is not increased because no new operating conditions are created; the increased amount of time that any affected detector is out of service is negligible.

- II. No. Operation with a fire detection instrument inoperable for up to 15 minutes for the purpose of performing required surveillance, without implementing the TRO Required Actions, will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

None of the affected Functions perform an essential monitoring or protective function, and none control processes directly associated with initial conditions associated with any transient or accident analysis. The changes will not require the performance of any new test or experiments not described in the SAR. The change will not introduce any new plant condition by operating with a detector inoperable. In some cases, TRO Required Actions are delayed for 15 minutes. In each case, the allowance is less than Allowed Out of service Times. No possibility for an accident or malfunction of a different type than any evaluated previously in the SAR is created, because no new operating conditions are created and the increased amount of time that any instrument is out of service is negligible.

- III. No. The changes being made have no impact on the margin of safety as defined in the basis for any Technical Specification. This conclusion is based on the fact that the affected components do not impact the operability of any Technical Specification requirements.

Operating under the allowed degraded condition for this limited time period does not increase the plant risk associated with any design basis event. During the implementation of ITS, the previous CTS requirements have been relocated from the CTS to the TRM. It was determined by the Nuclear Regulatory Commission (NRC) and the Industry that this requirement was not needed in the Technical Specifications based on the application of the Screening Criteria provided in 10 CFR 50.36. The relocation of these requirements has been reviewed and approved by the NRC, through the review and approval of the ITS (License Amendments #178 for Unit 1 and #151 for Unit 2). Based on the fact that these requirements are specifically excluded from the scope of the ITS, changes to the requirements will have no impact on the margin of safety as defined in the basis of the NRC approved Improved Technical Specifications.

**SER NO: 01-138**

**CROSS REFERENCE: DCP 99-3003A&B/99-3004A&B, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

A modification to replace the motor pinion, and worm shaft gear on the Core Spray Test Return to Suppression Pool Containment Isolation Valves.

**SUMMARY:**

- I. No. The modification does not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. These valves are not required to operate for any accident analyses. The gearset replacement does not affect the pressure-retaining boundary of the valves or adversely impact the active safety functions of the valves, their hydraulic characteristics, or their seat leakage characteristics. The stroke time listed in FSAR Table 6.2-12 and Technical Specification Bases Table 3.6.1.3-1 is increased to 80 seconds. FSAR Sections 6.2, 6.3, and Chapter 15 have been reviewed in making this determination.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effects of the modification are to increase available torque and to increase the stroke time. Neither of these effects creates the possibility of a new accident or malfunction. The active safety function, which is to close upon receipt of a containment isolation signal or upon initiation of alternate shutdown cooling, is not adversely impacted by the modification. FSAR Sections 6.3 and Chapter 15 have been reviewed in making this determination.
- III. No. The modification does not reduce the margin of safety as defined in the basis for any Technical Specifications. The integrity of the valve pressure boundary, hydraulic characteristics, and valve seat leakage rate is not affected by the actuator gearset replacement. Accident analyses do not consider Core Spray to be in test mode at the onset of any accidents. The Technical Specifications Bases Sections B3.6.1.3, "Primary Containment Isolation Valves, B3.6.1.1, "Primary Containment", and B3.5.1 "ECCS – Operating" were reviewed in making this determination.

**SER NO: 01-139**

**CROSS REFERENCE: 98-3015A, Unit N/A**

**DESCRIPTION OF CHANGE:**

**Description:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Zones 0-24G, 0-25A, 0-25E, 0-28A-1, 0-28A-11, 0-28B-1, 0-28B-11 and 0-28H.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 0-24G, 0-25A, 0-25E, 0-28A-1, 0-28A-11, 0-28B-1, 0-28B-11 or 0-28H. On Elevation 771' of the Control Structure, the Fire Hazards Analysis supports the conclusions that due to the limited potential for a fire and the strict controls placed on transient combustibles the fire barrier upgrade system provides a level of protection equivalent to that intended by 10 CFR Appendix R, Section III.G.2. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 0-24G, 0-25A, 0-25E, 0-28A-I, 0-28A-II, 0-2813-I, 0-28B-II or 0-28H.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The alternate fire barrier upgrade system used on portions of certain conduits in the Control Structure Elevation 771' does not result in a change to the Technical Specifications. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.



**SER NO: 01-140**

**CROSS REFERENCE: SCP 191070, Unit 1**

**DESCRIPTION OF CHANGE:**

Setpoint Change Package 191070 increases the setpoints for the Instantaneous Overcurrent (IOC) relays, for Circulating Water Pump 1P501C by approximately 13 percent.

**SUMMARY:**

- I. No. The proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR. The acceptability of the revised setpoint is determined by calculation, and is in accordance with the design base setting criteria for SSES established in "Criterion for the Protection of 13.8KV, 4.16KV, and 480 Volt Motors." The proposed action Improves the ability to start circulating water pump 1P501C motor while maintaining compliance with other related design parameters. However, the starting of circulating water pump 1P501C motor is not part of any design basis accident response. The proposed action does not impact the logic nor increase the frequency of the Reactor Recirculation Pump runback in response to a trip of a circulating water pump.
- II. No. The proposed action does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR. The revised setting has been chosen to protect the motor, protect the cables, and to coordinate with upstream devices. The revised setting Improves the ability of the motor to start and does not impact its ability to run. There is no change in equipment, nor in intended function of equipment, nor in the design base of equipment, nor in the design base relay setting methodology. Even if the relay settings were to fail to coordinate with the upstream breaker (in direct contradiction to documented calculation results) in the face of a motor fault, the impact would be to open the feeder breaker to auxiliary bus 1AI01. The loss of a 13.8KV auxiliary bus is within the design basis of the plant and is enveloped by the loss of the auxiliary transformer as discussed in FSAR section 15.2.6.
- III. No. The proposed action does not reduce the margin of safety as defined in the basis for any technical specification. The technical specification bases section B 3.8, "Electrical Power Systems," was specifically reviewed for possible impacts,

**SER NO: 01-141**

**CROSS REFERENCE: NL-99-043, Unit N/A**

**DESCRIPTION OF CHANGE:**

This evaluation was written to determine whether or not a temporary Use-As-Is recommendation of GASPAR for dose calculations performed in support of radiological effluent surveillances and AE&WD Report preparation is appropriate.

**SUMMARY:**

- I. No. The GASPAR/ODCM cow-milk pathway dose calculation discrepancy involves radiological gaseous effluent evaluations. It has no effect on any equipment or its operation, safety-related or otherwise. Thus, no accidents as described in the SAR could be caused, in whole or in part, or could be exacerbated by these changes; therefore, no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety can occur.
- II. No. The GASPAR/ODCM cow-milk pathway dose calculation discrepancy involves radiological gaseous effluent evaluations. It has no effect on the physical plant or its operation. Thus, no accidents of any type could be caused, in whole or in part, or exacerbated by these changes.
- III. No. The GASPAR/ODCM cow-milk pathway dose calculation discrepancy does not affect any physical parameters, instruments, response times, redundancy and/or independence of components. Therefore, no margin of safety is reduced.

**SER NO: 01-142**

**DESCRIPTION OF CHANGE: NL-99-054, Unit 2**

This change revises current Unit 2 TRO 3.7.1 statement: "Two ESW Subsystems with a minimum of three ESW Pumps shall be OPERABLE provided at least one of the required RHR Shutdown Cooling Subsystems and the required Shutdown ECCS Subsystems are supplied by the ESW Loop with two pumps. " to read: "Two ESW Subsystems shall be OPERABLE."

Revise current Unit 2 TRO 3.7.1 Condition A:

"One required pump in an ESW Subsystem Inoperable" to read: "One pump in an ESW Subsystem Inoperable."

**SUMMARY:**

- I. No. The proposed action restores the proper operating Requirements for the Unit 2 Emergency Service Water (ESW) function. The net effect of the proposed change is to increase the conservatism of the TRO Requirement, such that the TRO Conditions are more likely to be entered. The proposed revision creates a condition that existed in the previous Technical Specifications, and is consistent with the Unit I TRO ESW requirements, and does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety.
- II. No. The proposed action restores the proper operating Requirements for the Unit 2 ESW function. The net effect of the proposed change is to increase the conservatism of the TRO Requirement, such that the TRO Conditions are more likely to be entered. The proposed revision creates a condition that existed in the previous Technical Specifications, and is consistent with the Unit 1 TRO ESW requirements, and does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action restores the proper operating Requirements for the Unit 2 ESW function. The net effect of the proposed change is to increase the conservatism of the TRO Requirement, such that the TRO Conditions are more likely to be entered. The proposed revision creates a condition that existed in the previous Technical Specifications, and is consistent with the Unit I TRO ESW requirements, and does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-143**

**CROSS REFERENCE: DCP 99-3033A-M, 99-3034 A-M, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed change replaces the existing Post Accident Monitoring (PAM) Bailey 771 recorders with new Westronics Series 1200B recorders and changes their power feed to eliminate degraded voltage conditions.

**SUMMARY:**

- I. No. The proposed action does not affect any of the postulated initiating events for which transients or anticipated operational occurrences and accident conditions were analyzed (reference FSAR Chapter 7, and Chapter 15). It does not create a condition that could propagate an accident. The proposed action does not involve a precursor of, or contribute to, any evaluated accidents involving offsite dose. This change does not adversely affect any safety-related plant systems or components. This change has no adverse effect on accident scenarios and does not increase the potential of a malfunction of equipment important to safety. These modifications will not increase challenges to safety systems assumed to function for any accident analysis. Therefore, this change has no effect on any accident scenario or malfunction of equipment important to safety, and has no effect on radiological consequences. The proposed action does not affect the ability of Post-Accident Monitoring recorders to function as required by Reg. Guide 1.97. The proposed change will continue to allow operators to monitor and record all of the existing variables directly on the replacement recorders. Also, the replacement recorders will no longer be powered from a manual transfer switch. They will be supplied from the existing Class 1 E 120VAC, battery backed power supply. They will not have an alternate feed, and the SAR does not consider the availability of an alternate feed to the twenty-six (26) Post Accident Monitoring Recorders affected by this proposed change. Therefore, the proposed change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The primary purpose of the PAM instrumentation is to display plant variables that provide information required by the control room operators during accident situations. This information provides the necessary support for the operator to take the manual actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for Design Basis Events.

No new failure modes result from these modifications. The proposed modifications do not adversely impact the dynamic qualifications of the existing panels and do not adversely affect their power sources. Therefore, the proposed change does not create the possibility of an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. Tech Spec 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation", specifies the operability and surveillance requirements (channel check, channel calibration and minimum number of channels required for operability) for Post Accident Monitoring system instrumentation. The PAM recorders and indicators are used as the primary method of indication by control room operators during an accident and are included in emergency operating procedures and training. The proposed action maintains the current design basis of the associated post-accident monitoring functions required by Reg. Guide 1.97. The overall performance of the PAM instrumentation remains the same as the original design. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-144**

**CROSS REFERENCE: DCP 99-9006 & 99-9007, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification removes bonnet vent piping from the reactor recirculation pump 1F031A and 1F031B Valves, and adds a new pipe support on the "B" recirculation pump seal water drain and sample line to reduce the potential for pipe cracks due to high vibration. A new weld profile on some socket welds will be installed.

**SUMMARY:**

- I. No. Based upon a review of the SAR (including FSAR Sections 3.9, 12.2, 15 & ODCM), the initiating event which includes the components affected by this modification is the recirculation pump shaft break and a small break LOCA. The probability of these events occurring is not increased because these modifications do not change the interface between the recirculation motor stand and the shaft and also eliminates piping that could cause a LOCA. The failure probability of the affected piping is decreased because the support added reduces the probability of pipe cracking due to vibration, while not increasing the probability of pipe cracking due to other failure mechanisms. The support capability of the motor stand to which the new pipe support is mounted is not degraded as a result of this modification based upon location of the bolts and evaluation by the vendor. The affected components interface with the drywell and the recirculation pumps, which perform safety-related functions. The probability of a malfunction of this equipment is not increased because their interface is not affected and there is no change in the fluid properties within the piping which would result in an increase in the rate of drywell leakage. There are no new radiological pathways created and no radiological increase from existing pathways caused by this modification, as a result of an accident or a malfunction of equipment.
- II. No. The possible failure modes of the modified piping and motor stand were evaluated for new impacts upon plant equipment and previously evaluated initiating events (evaluated in the SAR). No new impacts were identified. The modified system configuration conforms to the applicable construction Codes and Standards. The interfaces with equipment important to safety are unaffected by this modification since no new impacts were identified. Therefore, this modification will not result in an accident or malfunction of a different type being created for equipment important to safety.
- III. No. Based upon a review of the design parameters involved with this modification, none which serve as the basis for a margin of safety, as presented in the SSES Technical Specifications, are adversely affected by the modifications. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification or Technical Requirement.

**SER NO: 01-145**

**CROSS REFERENCE: DCP 99-3030, 99-3031, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

Appendix R emergency lighting units and voice-powered communication jack plates will be installed to support operator actions resulting from a fire in the Control Room or in certain fire zones within the Unit 1 & 2 Reactor Buildings.

**SUMMARY:**

I. No., The installation of the emergency lighting units is an enhancement to the existing lighting system and will bring the area within the Upper Relay Room into compliance with 10CFR50, Appendix R Section II.J. The voice-powered communication system will aid the operator with communications with either the Control Room and/or the Remote Shutdown Panel Room in performance of required remote operator actions. The installation of these components will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.

II. No. The generation of hydrogen by the emergency lighting battery units being installed was found to be negligible relative to the upper limit of 2% concentration presently used for the Class 1E battery rooms and therefore not considered an accident of a different type.

By assuring that the electrical coordination, diesel generator loading, voltage drop, circuit ampacity, combustible loading, electrical separation and safety impact design requirements are met, and in conjunction with the review of presently identified accident conditions, no actions planned under these modifications could be identified which would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

III. No. The subject modifications do not interfere with the logic, control or operation of any safety related plant system or component. The emergency lighting system, essential lighting system and voice-powered communication system are not governed by any Technical Specifications. The installation of the lighting and communication components will enhance the operator's ability to perform specific actions. It is concluded that installation of the lighting and communication components will not reduce the margin of safety as defined in the Technical Specifications.

**SER NO: 01-146**

**CROSS REFERENCE: DCP 98-3005, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action is to declare the protective fire barrier material inactive on selected raceways in Fire Areas CS-10, CS-11, CS-17, CS-20, GS-24, CS-30 and CS-32.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 0-25E, 0-27B, 0-27C, 0-28A-I, 0-28A-II, 0-28B-1 and 0-28B-II.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The interfacing system evaluations preclude the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.



**SER NO: 01-147**

**CROSS REFERENCE: DCP 98-3007/98-3010, Units 1, 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to declare the protective fire barrier material inactive on selected raceways in Fire Areas R-1A, R-1A-1B, R-1B, R-2A, R-2A-2B, R-2B and R-2D.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action do not change. Appendix R safe shutdown can be achieved and maintained for postulated fires in respective Fire Areas covered within the scope of this modification.
- II. No. The proposed actions do not identify a postulated initiating event, which would create the possibility of an accident of a different type. The interfacing system evaluations preclude the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by the Technical Specifications. The margin of safety as defined in the basis of the Technical Specifications is not reduced by the proposed action.

**SER NO: 01-148**

**CROSS REFERENCE: NL-99-056**

**DESCRIPTION OF CHANGE:** The proposed action involves revising FSAR Tables 8.3-1 through 8.3-5a. During review and comparison of the FSAR tables and design-related documents it was determined that several inconsistencies existed.

**SUMMARY:**

- I. No. The proposed change revises the operating kW ratings for various equipment, the indicated number of connected equipment, and the timing sequence for various equipment connected to the diesel generator. These revisions are not the result of any new physical changes made to the plant. The total kW load of the diesel generators is within the design capacity rating of the diesel generators: 4000 kW continuous for diesel generators A, B, C, and D. 5000 kW continuous for diesel generator E. Since the rating of the diesel generators has not been exceeded and no physical changes have been made, the diesel generators will function as outlined in FSAR chapters 8 and 15 which describes diesel generator operation and design against malfunction and diesel generator initiation under accident conditions. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction.
- II. No. The changes reflect previous calculation results not incorporated into the FSAR and changes in the minimum required equipment. Changes to the indicated number of connected equipment reflect connected Unit 2 equipment and typos. Timing sequence changes reflect as installed equipment. Only changes to equipment initiated manually were made. The overriding automatic initiation and timing sequence for equipment to mitigate a LOCA remain unchanged. Since the proposed change reflects as-installed equipment and the automatic initiation has not been altered, the change does not create a possibility for an accident or malfunction of a different type other than previously evaluated in the SAR. FSAR chapters 3, 6, 9, and 15 outlined the initiation of Emergency Core Cooling System equipment during various scenarios and FSAR chapters 8 and 15 outline the initiation of the on-site AC power sources.
- III. No. The kW loading capability and limits of the diesel generators A, B, C, D and E is demonstrated by Technical Specification Surveillance Requirements 3.8.1.3, 3.8. 1.10, and 3.8.1.14. Diesel generator timing and energization of permanently connected loads is demonstrated by Technical Specification Surveillance Requirements 3.8.1.11, 3.8.1.17, 3.8.1.18, and 3.8.1.19.

**SER NO: 01-149**

**CROSS REFERENCE: NL-99-019, Unit N/A**

**DESCRIPTION OF CHANGE:** The action involves revising FSAR Table 8.3-1. Table 8.3-1 outlines the assignment of Engineered Safety Feature (ESF) and selected non-ESF loads to the diesel generators and Engineered Safeguard System (ESS) buses. The revision is a clarification of the column titled 'Required Number' identified in the loading sequence section of the table.

**SUMMARY:**

- I. No. The proposed action clarifies the minimum required loads to mitigate the described Design Basis Accident (DBA). An accident caused by a complete shear of the suction side pipe in the recirculation system is reviewed in FSAR chapters 3, 6, 9, and 15. This change does not result in the minimum number of ESF equipment required to operate to be greater than presently analyzed and documented in the FSAR. In addition, the change does not exceed the diesel generator capability as described in the FSAR. Therefore, the proposed action does not increase the probability of occurrence of an accident or malfunction. The reflected minimum required ESF loads are either stated or analyzed in the SAR. Therefore, the changes do not increase the consequences of an accident or malfunction as previously evaluated in the SAR, they establish consistency between FSAR sections and Table 8.3-1. The non-ESF loads listed are not needed to mitigate a DBA with safe shutdown of the alternate unit. Their function is protection or support of existing equipment during normal operation. The changes to the support equipment do not increase the probability of occurrence or consequences of an accident or malfunction.
- II. No. The proposed action outlines the minimum equipment required to mitigate a DBA with Loss of Offsite Power (LOOP) on one unit and LOOP and safe shutdown of the other unit. The DBA described with a single failure equal to Loss Of Offsite Power - With Containment Spray is described in FSAR sections 6.2 and 15. The minimum Emergency Core Cooling System (ECCS) equipment required for this failure is also outlined in FSAR section 6. The reflected minimum equipment required ensures the capability of the ECCS system to maintain reactor safety and core shutdown within the requirements of 10CFR50 Appendix K. The change does not result in any physical or plant changes. Therefore the proposed action does not create the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.
- III. No. Since there are no increases in or consequences of an accident or malfunction there is no reduction in the margin of safety. In addition, Technical Specifications Section 3.5 ensures an adequate number of equipment required to mitigate the DBA and maintain core parameters per 10CFR Appendix K is operable. Section 3.3 ensures the equipment required for complete transfer of AC power functions upon the loss of offsite power is operable and maintained. Section 3.6 ensures adequate drywell air flow and primary containment oxygen concentration. Lastly, section 3.8 ensures operability of the onsite AC and DC power systems in the event of loss of offsite power. The proposed action does not alter the existing Technical Specifications or its basis and does not reduce the defined margin of safety.

**SER NO: 01-150**

**CROSS REFERENCE: NL-99-050, Unit N/A**

**DESCRIPTION OF CHANGE:** The purpose of this evaluation is to justify changing the words found in the FSAR Table 8.3-22, items 9 and 10, column 'Method of Failure Detection' from 'System Test Once in 18 Months to 'Periodic Equipment Test.'

**SUMMARY:**

- I. No. Since the change reflects the actual preventive maintenance testing being performed to detect the failure mechanisms already described in the FSAR and there are no physical or procedural changes to the operation of the plant, the proposed change does not increase the probability of occurrence or consequences of an accident or malfunction.

The proposed change reflects the present type of testing performed for the component and its failure mechanism described in FSAR Table 8.3-22 items 9 and 10. The method of testing described in the FSAR reflects system not component testing on an 18 month basis. However, the malfunction described is component related and may be detected by system testing only after a malfunction has most likely occurred. For the affected safety related systems, system testing is still performed in accordance with ITS section 3.5, Emergency Core Cooling System (ECCS) and Reactor Core Isolation Cooling (RCIC).

- II. No. Accidents related to ECCS and loss of ECCS are outlined in sections 3, 6, 9, and 15 of the FSAR. The proposed change provides an alternative means for a method of failure detection for the failure mechanism already described in the FSAR.

Since the change still provides a means to detect failure and it does not involve any physical or operational changes to the plant, it does not create the possibility for an accident or malfunction of a different type than previously evaluated in the SAR.

- III. No. Motor Control Center (MCC) buses 1D155 and 1D165 are not safety related equipment and are not required to maintain a margin of safety as described in Technical Specifications. Reg. Guide 1.70 Rev. 2 requires a description of the non-safety related DC equipment only to permit an understanding of the system.

MCC buses 1D254 and 1D274 are safety related equipment and verification of their distribution capabilities is required in accordance with ITS sections 3.8.7 and 3.8.8 and SR requirements 3.8.7.1 and 3.8.8.1. Reg. Guide 1.70 Rev. 2 requires a description of testing of safety related DC equipment. It does not prescribe testing type and frequencies.

Since an increase in probability of occurrence or possibility for accident or malfunction has not been created and the operation of the safety-related DC distribution sources are required per ITS, the proposed change does not reduce the margin of safety as defined in the basis for any Technical Specification.

and primary containment oxygen concentration. Lastly, section 3.8 ensures operability of the onsite AC and DC power systems in the event of loss of offsite power.

The proposed action does not alter the existing Technical Specifications or its basis and does not reduce the defined margin of safety.

**SER NO: 01-151**

**CROSS REFERENCE: NL-99-055, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This change is to Section 3.3.4 of the Technical Requirements Manual (TRM), subsection 3.3.4 Post-Accident Monitoring Instrumentation. The existing TRM action for an inoperable Acoustic Monitor channel, item D.2. Verify a minimum 14 of the associated acoustic monitor channels and 5 of the Automatic Depressurization System (ADS) Safety Relief Valve (SRV) acoustic monitor channels are operable is being removed.

**SUMMARY:**

- I. No. Removing item D.2 from the Action Statements does not increase the probability or the consequences of an accident or malfunction important to safety as previously analyzed in the SAR. The SRV safety-valve function (ITS 3.4.3), safety-related ADS function (six selected valves-ITS 3.5. 1) and non-safety related automatic and manual relief functions are independent of the acoustic monitoring function. No failure or mis-operation of the acoustic monitoring system can affect the ability of these valves to perform their design functions.

Failure of the acoustic monitoring system to actuate during an SRV actuation will not affect the consequences of the SRV actuation. The operator actions specified in the FSAR analysis of the SORV, are based upon the suppression pool temperature not the SRV position. Additionally, ON-1/283-001 specifies a number of diverse methods of determining SORV position. Therefore, failure of the acoustic monitor does not impact the consequences of an event previously analyzed in the SAR.

- II. No. Removing item D.2 from the TAR does not create the potential for a new accident or malfunction of a different type than previously analyzed in the FSAR. . This change only impacts the allowed outage time of failed instruments that are located in the primary containment. Therefore, this change cannot create a new type of accident or malfunction.
- III. No. This change does not involve a reduction in a margin of safety as defined in the basis for any Technical Specifications. Operating without an SRV position indication does not reduce the design or operating basis margin to safety. Primary Containment controls are in place that can effectively deal with the operating condition. In the unlikely event that the SRV should cycle open and fail to fully close, sufficient indication would be available to identify and mitigate the occurrence. Thus, the proposed change does not involve a reduction in a margin of safety.

**SER NO: 01-152**

**CROSS REFERENCE: DCP 98-3015B, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Zones 0-27A, 0-27B, 0-27C and 0-27E.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 0-27A, 0-27B, 0-27C or 0-27E. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 0-27A, 0-27B, 0-27C or 0-27E.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-153**

**CROSS REFERENCE: DCP 99-3036, Unit 1**

**DESCRIPTION OF CHANGE:**

The scope of the modification includes the replacement of the reduced-voltage starting resistors for HV155F006 at 250V DC Motor Control Center (MCC) 1D264.

**SUMMARY:**

- I. No. HV-155F006 is the High Pressure Coolant Injection (HPCI) pump injection valve whose safety functions are to open automatically for reactor water injection during HPCI system initiation and to close to provide containment isolation. The replacement of the starting resistors will not affect the safety functions of the valve but will increase the motor inrush current and provide improved torque capability to open or close the valve under design basis conditions. The accident previously evaluated in the SAR involves the accidental startup of the HPCI system due to operator error and is not affected by the replacement of the starting resistors for the valve motor starter. No other applicable accidents have been evaluated. The modification meets all applicable design, material and construction requirements and does not change the performance or operation of the High Pressure Coolant Injection System. Since the valve serves a mitigating function following an accident and the modification provides greater assurance of valve operation, it is therefore concluded that the modification will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.
- II. No. The failure mode of the valve (fail as-is) will not be altered by the replacement of the starting resistors in the motor starter circuit. The safety functions of the valve are not involved with any credible accident initiators. The functional performance of the valve will not be adversely impacted since all design requirements have been satisfied. The starting resistors have been dedicated for installation in a Class 1E motor control center in a harsh environment and are identical in design and function to starting resistors used for the Unit 2 valve HV-255F006. Therefore, the possibility of a different type of accident or malfunction will not be created. FSAR Sections 6.2.4.2, 6.3.2.2.1, 7.3.1.1 a. 1.3.7 and Chapter 15 have been reviewed in making this determination.
- III. No. The modification will not change the margin of safety as defined in the basis for any Technical Specification. The margin of safety established to prevent the release of radioactive materials from containment will not be affected. The modification will not alter any of the valve actuation logic as described in Technical Specifications Bases B3.3.6.1 and B3.6.1.3. The valve stroke time will remain within the specified time required to maintain valve operability. The modification will also not affect the thermal overload protection function associated with HV-155F006, which will be bypassed under normal operating conditions as identified in Technical Requirements Manual Section 3.8.2.1 and Table 3.8.2.1-1.



**SER NO: 01-054**

**CROSS REFERENCE: 186280, Unit 1**

**DESCRIPTION OF CHANGE:**

The proposed action is to reroute conduit F1M076 with a protective fire barrier upgrade system in Unit 1 Reactor Building Elevation 719', Fire Zone 1-4A-S.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zone 1-4A-S. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zone 1-4A-S
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the rerouted conduit F1M076 with its fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-155**

**CROSS REFERENCE: NL-99-063, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

FSAR Table 6.1-16 will be revised to include the current ASTM specification for purchased zinc plated bolts, nuts and washers.

**SUMMARY:**

- I. No. This change does not affect the design or function of any component. There is no change in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. No design, quality or operational parameters are affected by this change in specification number. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. No material properties or design criteria are affected by the change in specification number. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-156**

**CROSS REFERENCE: NL-99-065, Unit N/A**

**DESCRIPTION OF CHANGE:**

This change temporarily attaches a vendor-supplied filtration skid to the water pretreatment system. Bypass the water pretreatment system clarifier and gravity filters. Operate the filtration skid to produce clarified water from river water.

**SUMMARY:**

- I. No. There is no increase in the probability of occurrence of a malfunction of equipment important to safety. None of the systems or components affected by the proposed actions performs a safety-related function. The proposed process and affected components are located in the Circulating Water Pump House, which contains no equipment important to safety. Failure of the proposed process or affected components will not impact any equipment important to safety. There is no increase in the probability of occurrence of an accident. There are no design basis accidents that are initiated by failures or events of the water pretreatment system. There is no increase in the consequences of accidents or malfunctions of equipment important to safety. None of the systems or components affected by the proposed actions are used to mitigate the consequences of design basis accidents. The following SAR sections are applicable: FSAR 9.2.8, Raw Water Treatment System, FSAR 15.0, Accident Evaluation and SER 9.0, Auxiliary Systems.
- II. No. The proposed action does not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR. The proposed action involves systems and components that have no safety-related functions. Failure of affected components will not cause a malfunction of equipment important to safety. None of the affected components contains or processes radioactive materials. Therefore, there can be no release of activity as a result of any failures of the process or components.
- III. No. There is no reduction in the margin of safety as defined in the basis section of any Technical Specification or Technical Requirement. There are no Technical Specifications or Technical Requirements for the operability of the makeup water treatment system or for the quality of clarified water. None of the bases sections in Technical Specifications or Technical Requirements relate the margin of safety to any aspect of the makeup water treatment system or other systems and components affected by the proposed action.

**SER NO: 01-157**

**CROSS REFERENCE: NL-99-061, Unit 1 and 2**

**DESCRIPTION OF CHANGE:** The proposed action will change the required maximum isolation time as presented in Technical Specification Bases Table B 3.6.4.2-1 for isolation dampers HD-175(275)86A&B, HD-175(275)24A&B and HD-175(275)76A&B. The maximum closure time for the secondary containment isolation dampers will be changed to the following values: HD-175(275)86A&B will be changed from 7.5 seconds to 10.0 seconds, HD-175(275)24A&B will be changed from 5.0 seconds to 10.0 seconds and HD-175(275)76A&B will be changed from 3.0 seconds to 10.0 seconds.

**SUMMARY:**

- I. No. The proposed action does not increase the probability of occurrence or the consequences of an accident or the malfunction of equipment important to safety, as previously evaluated in the SAR. The proposed action will not impact the current offsite dose analysis or the post-accident secondary containment pressure response analysis. FSAR Chapters 3, 6, 9, 12, and 15 and NUREG 0776 were reviewed to determine if the proposed action has an effect on the spectrum of postulated initiating events for which transients or operational occurrences and accident conditions were analyzed. NUREG 0776 and FSAR Sections 6 & 9 provide a description of the expected operation of the secondary containment isolation function, the Standby Gas Treatment (SGT) system and the secondary containment. The proposed change will operate these systems within the limits stated in the above documents and will not impact the supporting licensing basis analysis.
- II. No. The proposed change does not create the possibility for an accident or malfunction of a different type than any previously described in the SAR. This conclusion was reached after examination of FSAR Sections 6.2.3, 6.5 and 9.4. Examination of the FSAR determined that the proposed action maintains the offsite dose analysis and secondary containment pressure response analysis assumptions that support the FSAR description. The FSAR describes that the secondary containment isolation system is designed to isolate the secondary containment when a valid isolation occurs and establish a boundary for radioactive material following a postulated DBA. The proposed action assures that these functions will be accomplished and that the offsite dose analysis and post-LOCA secondary containment pressure response analysis are not impacted. Since the proposed action is consistent with the FSAR and the current design analyses, the secondary containment isolation system will be able to perform its design basis function.
- III. No. The proposed action does not reduce the margin of safety as defined in the bases section of the technical specifications. Changing the secondary containment isolation damper maximum stroke time does not impact the offsite dose analysis or the post-LOCA secondary containment pressure response analysis. Thus, the secondary containment and secondary containment isolation system will be able to perform its safety function as defined by the technical specification bases. The isolation dampers will still isolate and provide a boundary to contain radioactive materials that may be present post-accident.

**SER NO: 01-158**

**CROSS REFERENCE: NL-99-3029, Unit 1**

**DESCRIPTION OF CHANGE:**

This change replaces the Actuator Gearset on ON HV-15517001, the normally closed High Pressure Coolant Injection (HPCI) Turbine Steam Supply isolation valve.

**SUMMARY:**

- I. No. The modification does not increase the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety as previously evaluated in the SAR. The gearset replacement does not affect the pressure-retaining boundary of the valves or adversely impact the active safety functions of the valves, their hydraulic characteristics, or their seat leakage characteristics. The stroke time remains within the limit of 20 seconds. FSAR Section 6.3 and Chapter 15 have been reviewed in making this determination.
- II. No. The modification does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. The effects of the modification are to increase available torque and to increase the stroke time. Neither of these effects creates the possibility of a new accident or malfunction. The active safety function, which is open to initiate HPCI turbine operation upon receipt of a Reactor Low Level 2 or High Drywell Pressure signal, is not adversely impacted by the modification. FSAR Section 6.3 and Chapter 15 have been reviewed in making this determination.
- III. No. The modification does not reduce the margin of safety as defined in the basis for any Technical Specifications. The integrity of the valve pressure boundary, hydraulic characteristics, and valve seat leakage rate is not affected by the actuator gearset replacement. The Technical Specifications Bases 3.5.1 was reviewed in making this determination.

**SER NO: 01-159**

**CROSS REFERENCE: NL-97-9068, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification repositions the upper limit switches of the nine 16" and 26" Extraction Steam Bleeder Trip Valves (BTVs) and remounts them in such a way that the position indication is taken from the vertical movement of the air cylinder piston rod rather than from the movement of the disc arm attached to the disc shaft.

**SUMMARY:**

- I. No. Based upon a review of the FSAR (Sections 10.2, 10.4, 15.2.3, Nuclear Question 423.20), Fire Protection Review Report and SSES Safety Evaluation Report, no accidents analyzed will have their probability increased as a result of this modification because the function of the BTVs are not adversely affected. This modification meets all design requirements for these existing systems, there is no adverse effect to the function or operation of these systems or components, nor do they create any system or component interface. The proposed activity will not degrade any radiological release path. Therefore, the proposed activity does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR.
- II. No. This modification does not add to, eliminate, or alter the design basis or design basis function of the Extraction Steam or Turbine Generator systems as described in the FSAR Section 10.2 and 10.4, nor does it adversely impact any component served by Extraction Steam or Turbine Generator systems. The enhancement of the position indication for these valves will not affect their function. Turbine overspeed protection due to flashing steam flowing back into the turbine (in the event of a turbine trip) will still be prevented. The prevention of water induction into the turbine (in the event of heater tube failure) will also be prevented and the valves will still close on flow reversal and will open and remain open to provide their required steam flow to the Feedwater Heaters as before. Therefore, the proposed activity does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Based upon a review of the system parameters potentially affected by this modification, none serve as the basis for any margin of safety as presented in the Technical Specifications or their bases and no system or component important to safety is adversely affected by this modification. Therefore, the proposed activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-160**

**CROSS REFERENCE: NL-99-066, Unit 1**

**DESCRIPTION OF CHANGE:**

This change updates the FSAR Shielding and Radiation Zoning Drawings, and corresponding text section 12.3.1.3, to reflect changes as a result of Hydrogen Water Chemistry Implementation on Unit 1. Minor zoning changes unrelated to Hydrogen Water Chemistry are also included to maintain the current licensing basis.

**SUMMARY:**

- I. No. These zoning changes do not impact, manipulate or affect any plant equipment, either physically or administratively. The environmental qualification of potentially impacted equipment is maintained. No accidents (as described in the SAR) could be precipitated or are impacted by these changes, therefore, no increase in the probability for an accident or malfunction of equipment important to safety can occur.

The proposed changes do not affect any equipment or process which affects/impacts off-site dose to the public. Therefore the consequences of an accident or malfunction is not increased.

- II. No. The zoning designations do not impact, manipulate or affect any plant equipment, either physically or administratively, therefore there is no possibility for an accident or malfunction of any type to occur as a result of the proposed action.
- III. No. The zoning changes do not affect any parameters, instruments, response times, redundancy and/or independence of components. Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-161**

**CROSS REFERENCE: DCP 99-3038B and 99-3038C, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This change establishes OSRE defensive fighting positions, installs door relocation modifications and adds Appendix R lighting in the Control Structure entrance corridor.

**SUMMARY:**

- I. No. The Physical Security Plan and the design basis accidents listed in Chapter 15 of the FSAR were reviewed for potential Impact by this change. The modifications performed do not adversely effect any plant safety related system. The structural integrity of the safety related buildings and missile barrier is not compromised by the additional loads generated by the defensive fighting position attachments. These changes do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated In the SAR.
- II. No. These modifications will not impact any safety related equipment and they do not create the potential for a new type of malfunction. The Susquehanna SES Physical Security Plan describes actions to be undertaken during construction projects at SSES. The security force will provide any necessary compensatory measures as deemed appropriate during implementation of these modifications.
- III. No. The plant security system is not addressed in any Technical Specification and since the changes made by these modifications do not adversely affect any plant Safety systems, the margin of safety as defined in the basis for the Technical Specifications remains unchanged. Therefore, these modification do not reduce the margin of safety as defined in the basis for any Technical Specification.



**SER NO: 01-162**

**CROSS REFERENCE: DCP 99-9005, Unit 1**

**DESCRIPTION OF CHANGE:**

The scope of this modification is to add permanent attachment lugs (PALs) at various locations in the Unit 1 drywell to facilitate the installation of temporary radiation shielding.

**SUMMARY:**

- I. No. A review of the FSAR (Sections 3, 6, 12 and 15), SSES Safety Analysis Report, Design Assessment Report, Design Basis Documents 003, 012, 027, 044, and 046, and the Offsite Dose Calculation Manual (ODCM) has been performed. Based upon this review, this modification has no adverse effect upon the function of the drywell structural steel, various pipe supports, Heating, Ventilating, Air Conditioning (HVAC) support and conduit supports since the design for this modification conforms to all of the applicable design specifications. In addition, this modification does not result in a change to any drywell design parameter or any drywell design requirement. Also, the existing drywell structural steel, pipe supports, HVAC support and conduit supports to which PALs are attached are all evaluated and qualified with the appropriate load combinations and are found acceptable. Therefore, this modification does not result in an increase in the probability of an accident as previously evaluated in the SAR.
- II. No. Based upon the assessment and the document review discussed above, this modification will not create any new failure modes or mechanisms for the drywell, drywell structural steel or other components important to safety, nor does it affect any drywell design parameter. Therefore, the proposed action will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. A review of the Unit I Technical Specification, their bases, the FSAR and the SSES SER including its supplements has been performed. Based upon this review and the discussion presented above, the proposed action will not reduce the margin of safety as defined for any Technical Specification.

**SER NO: 01-163**

**CROSS REFERENCE: DCP 97-9089, Unit 1**

**DESCRIPTION OF CHANGE:**

This modification will remove the regulator boards and perform internal wiring changes for the Vital Uninterruptible Power Source (UPS) panel 1D666 and for the Computer UPS 1D656.

**SUMMARY:**

- I. No. Based upon a review of the SAR (including FSAR Chapters 7.7, 8.3.1.8 & 15), there are no initiating events which include the components affected by this modification. This modification will remove the regulator boards and perform internal wiring changes for the Vital UPS panel 1D666 and for the Computer UPS 1D656. No adverse system logic changes occur. This change will substantially increase the reliability of the Vital UPS panel 1D666 and the Computer UPS 1D656. As a result, the probability of an accident previously analyzed in the SAR is not increased. This modification does not adversely affect any safety-related system, nor does it change the design basis of any system or structure. All changes performed under this modification are designed and installed in accordance with applicable Codes and Standards to ensure their design and construction integrity. In addition, no system interfaces are adversely affected nor any new ones created. Therefore, this modification will not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR. There are no new radiological pathways created and no radiological increase from existing pathways caused by this modification as a result of an accident or a malfunction of equipment.
- II. No. The possible failure modes of the modified Vital UPS panel 1D666 and the Computer UPS 1D656 were evaluated for new impacts upon plant equipment and previously evaluated initiating events (evaluated in the SAR). No new impacts were identified. The modified system configuration conforms to the applicable construction Codes and Standards. The interfaces with equipment important to safety are unaffected by this modification since no new impacts were identified. Therefore, this modification will not result in an accident or malfunction of a different type being created for equipment important to safety.
- III. No. Based upon a review of the design parameters involved with this modification, none which serve as the basis for a margin of safety, as presented in the SSES Technical Specifications, are adversely affected by the modifications. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification or Technical Requirement.

**SER NO: 01-164**

**CROSS REFERENCE: NL-99-067, Unit 1 and 2**

**DESCRIPTION OF CHANGE:** The proposed action is to update the radiological consequence analyses given in Chapter 15 of the SSES FSAR to reflect changes in the design and operation of the plant resulting from Current Licensing Basis Project findings, Condition Reports (CR), and Hydrogen Water Chemistry (HWC) implementation.

**SUMMARY:**

- I. No. The proposed action of updating FSAR Sections 15.4.9.5.2, 15.6.2, 15.6.4.5, 15.6.5.5.2, 15.7.1.1, 15.7.1.3, and 15.7.4.5.2 do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR.

The proposed updating of the selected Chapter 15 accident analyses to reflect current licensing basis project findings, CR's, and hydrogen water chemistry implementation has no impact on accident initiators as previously analyzed in approved safety evaluations. The changes made to the analyses have no affect on the function or performance of safety related equipment considered in these safety evaluations and therefore their probability of a malfunction or failure is unchanged from that previously evaluated.

The updated analyses provide a consistent application of realistic and design basis accident scenarios in accordance with RG 1.70 guidelines, current (uprated) power level, higher iodine carryover fractions for those accidents occurring during hydrogen injection, the use of International Commission on Radiation Protection (ICRP) 30 dose conversion factors, realistic atmospheric dispersion factors, and iodine partition coefficients as applicable. The radiological consequences of the updated FSAR design basis and realistic analyses remain within the applicable regulatory acceptance criteria,

- II. No. The proposed action will not create a possibility for an accident or malfunction of a different type than any previously evaluated in the SAR. The proposed changes relate to the existing FSAR accidents or malfunction analyses and reflect the currently reviewed and approved SSES plant design configuration. The results of the updated analyses demonstrate continued compliance with the acceptance limits assumed in the plant safety analyses.
- III. No. There is no reduction in the margin of safety defined in the basis of any Technical Specification. The proposed update to the FSAR Sections 15.6.2, 15.6.4, 15.7.1.1 are consistent with the Improved Technical Specifications (ITS) and Technical Requirements Manual (TRM) requirements (or their bases) with regards to limitations associated with reactor coolant system specific activity TS 3.4.7), main condenser Offgas system activity TS 3.7.5), and primary containment isolation valve closure times TS 3.6.1.3). None of the parameters that are involved in the bases for the Technical Specifications would be adversely impacted by the proposed action. Consequently, updating these FSAR radiological analyses, as described, would in no way reduce the margin of safety as defined in the Technical Specifications.

**SER NO: 01-165**

**CROSS REFERENCE: NL-99-069, Units 1 and 2**

**DESCRIPTION OF CHANGE:**

The containment post LOCA hydrogen generation calculations have been updated in response to CR 96-2230. The CR identified that the FSAR post LOCA containment hydrogen calculation described in FSAR Section 6.2.5 did not reflect the current Atrium 10 x 10 fuel bundle designs or power uprate.

**SUMMARY:**

- I. No. The updates to the containment post-LOCA hydrogen generation analysis confirm that combustible gas concentrations remain within the capacity of the combustible gas control system. The updated analysis determined that recombiners must be started at approximately the same time in the wetwell and approximately 4 hours earlier in the drywell than the FSAR Section 6.2.5 now indicates. Emergency Operating Procedures direct the initiation of the recombiners even sooner than the analysis assumes (i.e., before reaching 2% hydrogen concentration). The revised analysis confirms that following a LOCA hydrogen concentrations will be maintained below the combustible limit of 4% without recourse to containment purge. Therefore, changes in the post-LOCA hydrogen generation analysis does not increase the probability of design basis accidents, radiological consequences of an accident or failure modes of equipment important to safety.
- II. No. The updates to the containment post-LOCA hydrogen generation analysis confirm that combustible gas concentrations remain with the capacity of the combustible gas control system. The updated analysis determined that recombiners must be started at approximately the same time in the wetwell and approximately 4 hours earlier in the drywell than the FSAR now indicates. Emergency Operating Procedures direct the initiation of the recombiners even sooner than the analysis assumes (i.e., before reaching 2% hydrogen concentration). The revised analysis confirms that following a LOCA hydrogen concentrations will be maintained below the Regulatory Guide 1.7 combustible limit of 4% without recourse to containment purge. Therefore, the change does not create to possibility of an accident or malfunction of a different type than those already analyzed in the FSAR.
- III. No. Technical Specification 3.6.3.3 addresses combustible gas control. It requires that containment remains inert (i.e., oxygen concentration remains below the limit of 4%) in order to ensure that a combustible gas mixture is not present in the containment prior to a LOCA. Long term post-LOCA generation of both hydrogen and oxygen from radiolytic decomposition of water may eventually result in a combustible mixture in containment. The revised post-LOCA hydrogen generation analysis shows that the hydrogen recombiners will react the radiolytic hydrogen and oxygen at a faster rate than they can be produced. The analysis assumes that the containment is inerted (i.e., oxygen concentration is less than 4%) prior to the LOCA. Therefore, the change in the containment post-LOCA does not reduce the margin of safety as defined in the basis for Technical Specification 3.6.3.3.

**SER NO: 01-166**

**CROSS REFERENCE: NL-99-080, Unit N/A**

**DESCRIPTION OF CHANGE:** The proposed change is to operate the Feedwater outboard containment isolation valve HV-241-F032B with the valve actuator stem backseated until the U2-10<sup>th</sup> RIO. This action will reduce/stop leakage from the check valve bonnet area.

**SUMMARY:**

- I. No. Backseating the valve will not degrade the valve pressure boundary Per FSAR Section, 6.2.4.3.2.1, following a LOCA, the actuator will have to be operated to provide long term cooling. This situation occurs when Condensate/Feedwater is not available and excessive leakage through the Feedwater line were to occur with fuel damage present. With the valve actuator stem backseated, and the valve cools down, the actuator will still perform its function. Therefore, in this condition, it is reasonable to assume that long term containment isolation can be accomplished. Following a plant transient or plant shutdown, long term isolation is not required, therefore this proposed action does not affect this function for these plant conditions. Maintaining the stem in the backseat condition until the U2-10<sup>th</sup> RIO is acceptable. The valve can remain in its backseat through all valve heatups and cooldown cycles. The amount of cooldown this valve would see during a plant shutdown, plant transient or LOCA, would not cause the actuator stem to bind in the backseat. Therefore, the actuator will perform as designed. Based upon the above discussion, operation of the affected equipment will not change. Therefore, this proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. As stated above, backseating this valve does not prevent the valve from performing its normal operation, nor short and long term isolation functions. No additional or new failures will occur as a result of this action. Therefore, the proposed action does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. Tech Spec 3.6.1.1.1, addresses the leakage requirements from Containment isolation valves. Backseating this valve stem will potentially stop the leakage from Primary Containment into Secondary Containment. This Tech Spec. requires that the combined leakage for all penetrations are within the limits of the Primary Containment Leakage Rate Testing Program. There are 3 valves (F032B, F010B, 241818B) that are required to be Local Leak Rate Test (LLRT) tested. During the Unit 2-9<sup>th</sup> RIO, all 3 valves were tested. The results from testing were satisfactorily. As stated above, backseating this valve will potentially stop the leak from the valve and restore it to a better condition. Tech Spec 3.6.1.3, addresses operability of containment isolation valves. The valves are listed as "Manual Isolation Valves" that receive no automatic isolation signals and have no design closure stroke time. The proposed action of backseating the actuator stem will not prevent the valve from performing its design function to isolate (short or long term). Therefore, the proposed action does not reduce the margin of safety as defined in the basis for any Technical Specification.

**SER NO: 01-167**

**CROSS REFERENCE: DCP 99-9014/99-9015, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

This evaluation discusses the aspects associated with disconnecting the Unit 1 and Unit 2 Residual Heat Remove (RHR) motor space heaters.

**SUMMARY:**

- I. No. The design change provided by this modification will be in accordance with the applicable design criteria and operational requirements as specified in the SAR, and all applicable commitments will be satisfied. Therefore, no new accident precursors will be created. The design will not adversely impact the operability of the RHR system nor its safety-related functions. No new failures will be created by the action taken via this modification. Therefore, the proposed action does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR.
- II. No. The design change provided by this modification will be in accordance with the applicable design criteria and operational requirements as specified in the SAR, and all applicable commitments will be satisfied. Therefore, no new accident precursors will be created. This design will ensure the operability of the RHR pump motors. The RHR pump motors will continue to perform their safety functions, provide a flow path when the RHR is in the Low Pressure Cooling Injection Mode, Suppression Pool Cooling or Containment Spray Modes, and Containment Isolation as required by Technical Specifications. No new equipment failure modes will be created by the actions taken via this modification.

Therefore, the proposed actions do not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.

- III. No. The disabling of the RHR 1(2)P202A/B/C/D motor space heaters will be in accordance with the applicable design criteria and operational requirements as specified in the FSAR. All applicable commitments will be satisfied. The modification will not affect the operability or any safety function of the RHR. The RHR will continue to perform its safety function as required by Technical Specifications 3.4.8, 3.4.9, 3.6.2.3 & 3.6.2.4. Therefore, this modification does not reduce any margin of safety which serves as the basis for any Technical Specification or Technical Requirement.

**SER NO: 01-168**

**CROSS REFERENCE: DCP 195576, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action is to reroute conduit D1P025 with a protective fire barrier upgrade system in the Control Structure Elevation 754', Fire Zone 0-27C.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuit in conduit D1P025 affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zone 0-27C. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zone 0-27C.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the rerouted conduit D1P025 with its fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-169**

**CROSS REFERENCE: DCP 98-3015B, Unit N/A**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Zones 0-27A, 0-27B, 0-27C and 0-27E.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 0-27A, 0-27B, 0-27C or 0-27E. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 0-27A, 0-27B, 0-27C or 0-27E.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.



**SER NO: 01-170**

**CROSS REFERENCE: DCP 98-3014B, Rev. 1, Units 1 and 2**

**DESCRIPTION OF CHANGE:**

The proposed action is to install a fire barrier upgrade system on selected raceways in Fire Areas R-1A, R-1B and CS-11.

**SUMMARY:**

- I. No. The proposed actions do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the SAR. The interfacing system evaluations assure the proposed action has no impact on equipment important to safety. The function of the circuits in the raceways affected by the proposed action does not change. The proposed action assures operability of the required Appendix R circuits and prevents inadvertent operation of equipment required during an Appendix R fire in Fire Zones 1-4A-N, 1-4A-S, 1-4A-W or 0-28A-1. Appendix R safe shutdown can be achieved and maintained for postulated fires in any plant area including Fire Zones 1-4A-N, 1-4A-S, 1-4A-W or 0-28A-1.
- II. No. The proposed action did not identify a postulated initiating event which would create the possibility of an accident of a different type. The qualification and installation program compliance of the fire barrier system precludes the possibility of a malfunction of a different type. There were no new scenarios that could be postulated that would create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR.
- III. No. The proposed action does not affect the operability requirements of any safety related system component as governed by Technical Specification or Technical Requirements Manual. The margin of safety as defined in the basis of the Technical Specification or Technical Requirements Manual is not reduced by the proposed action.

**SER NO: 01-171**

**CROSS REFERENCE: NL-99-081, Unit 1 and 2**

**DESCRIPTION OF CHANGE:**

Clarification is being added to the bases for TRO 3.6.3 that specifies that the Suppression Pool Temperature Monitoring System (SPOTMOS) alarm lights must be surveilled and the annunciators, triggered by Plant Integrated Computer System (PICSY) and by the SPOTMOS alarms, are not required to be surveilled.

**SUMMARY:**

- I. No. The change to the bases for TRO 3.6.3 does not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety, as previously evaluated in the SAR because the clarification is based on information found in the SAR itself. As described in FSAR 7.6.1b.1.2.4.2, the SPOTMOS status lights on the back and front panels in the control room are the alarm indication. Other equipment, such as PICSY and control room annunciators are highly reliable and comprise an aid to the operator, but are not required to be surveilled.
- II. No. The change to the bases for TRO 3.6.3 does not create a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR because no change is being made to any components, equipment or systems or the way in which operation of the plant is being conducted as a result of the change.
- III. No. The change to the bases for TRO 3.6.3 does not reduce the margin of safety as defined in the basis for any Technical Specification because no changes are being made to components or equipment or the way in which operations are being conducted.