Nuclear Operating Company
South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

August 2, 2004
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10CFR50.36
10CFR50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
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11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Broad-Scope Risk-Informed Technical Specification Amendment Request

Reference: 1. Letter from S. M. Head to NRC Document Control Desk dated March 18, 2003, "Letter of Intent to Submit a Broad-Scope Risk-Informed Technical Specification Amendment Request" (NOC-AE-03001458)
2. Letter from Scott M. Head to NRC Document Controls Desk dated December 27, 2003, "Request for Fee Waiver as Regulatory Guide 1.200 Pilot Plant" (NOC-AE-03001654)

Reference 1 is a letter of intent for STP Nuclear Operating Company (STPNOC) to submit a broad-scope risk-informed set of Technical Specification changes. This submittal is the formal license amendment request for the proposed risk-informed changes to the Technical Specifications described in the referenced letter. STPNOC has revised the original scope and content of the proposed changes to reflect the results of STPNOC – NRC discussions held on January 22, 2004. As described in Reference 2, the STPNOC submittal is also a pilot plant submittal for the industry for this initiative and a pilot submittal for Regulatory Guide 1.200 (originally DG-1122), "An Approach for Determining the Technical Adequacy of PRA Results for Risk-Informed Activities".

The attached draft Technical Specification amendment was developed so that it conforms to the five risk-informed principles established by the NRC:

- It meets current regulations.
- It maintains defense in depth.
- It maintains sufficient safety margin.
- Any increase in core damage frequency (CDF) is small.
- The impact of the change can be monitored.

Details of how the proposed changes meet the five principles are provided in the attachments.

By using STP's Probabilistic Risk Assessment (PRA) to calculate the risk (i.e., CDF, LERF) from the actual plant configuration and comparing it to pre-determined risk thresholds, the configuration risk management program will be capable of providing both a technical basis and robust calculation of an acceptable configuration-specific allowed outage time (AOT). The Configuration Risk Management Program (CRMP) will be the same tool that is currently used to perform the assessment of plant risk required by 10CFR50.65(a)(4).

This proposed change is considered fitting and timely for the following reasons:

- It is being submitted at the appropriate time in the overall industry plan for risk-informing the Technical Specifications. It is recognized by industry and NRC that this technological evolution of the Technical Specifications is needed for both current and future nuclear power plants and the state of-the-art in risk management technology makes it feasible now.
- It is consistent with the current STP practices for risk-informed configuration management. STP has been applying risk-informed configuration management technology for the past five years to manage plant maintenance configurations and has the capability to quantify incremental changes in plant risk required for the implementation of the proposed changes.
- It is consistent with the STP philosophy of optimizing safety by application of probabilistic risk technology.
- It complements industry risk-informed Technical Specification initiatives and is a pilot application for a broad use of risk-informed configuration management for AOT determination.
- It effectively links the risk determination required by 10CFR50.65(a)(4) to a complementary Technical Specification AOT.

The STP Plant Operation Review Committee has reviewed and concurred with the proposed changes. Because of the extent of the proposed changes, STPNOC requests 180 days for implementation after NRC approval.

There are no commitments in this application.

If you have any questions, please call Wayne Harrison at 361-972-7298 or me at 361-972-7902.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on August 2, 2004.
Date

T. J. Jordan
Vice President
Engineering & Technical Services

Attachments:
1. Table of Contents with Links
2. Description of Changes and Safety Evaluation
3. Technical Specification Mark-up Pages
4. Implementation
5. PRA Quality

cc:
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Table of Contents with Links

This Table of Contents with hyperlinks is provided to facilitate navigating the electronic version of this submittal.

1. Description of the changes being proposed and the reasons for seeking the changes.
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STP Nuclear Operating Company (STPNOC) is proposing in this application to implement a risk-informed process for determining allowed outage times for South Texas Project (STP) Technical Specifications (TS). The risk-informed process involves the application of the STP Configuration Risk Management Program (CRMP). The STP CRMP is a procedurally controlled program utilized by STPNOC for the implementation of 10CFR50.65(a)(4). The details of the proposed changes are described in Section 2 and in the mark-ups of the TS.

STPNOC is proposing this change as a pilot plant for the industry Risk-Informed Technical Specifications (RITS) and for evaluation of RG 1.200, as described in the cover letter. The industry has been discussing the development of RITS with the NRC for about three years and has proposed eight initiatives. This particular initiative is commonly referred to as Initiative 4B, "Risk-Informed Technical Specifications with a Backstop." Initiative 6 addresses the applicability of TS 3.0.3. Because of plant-specific three-train design features, a portion of the STP application necessarily addresses conditions where TS 3.0.3 currently applies. The STP TS typically do not have an action for conditions where more than one of the three required trains of a function are inoperable and TS 3.0.3 must be applied to those configurations. Consequently, STP's application includes a risk-informed action for configurations with more than one inoperable train. STP's application also includes a provision to apply the risk-management process to situations where more than one channel of instrumentation actuation logic is inoperable. Because TS 3.0.3 previously applied to this situation, this is also an extension of Initiative 4B into Initiative 6. This is discussed in more detail in Section 4. The description of the changes will delineate to what extent the STPNOC application addresses TS 3.0.3/Initiative 6.

STPNOC believes it is appropriate for the CRMP to be able to determine the time that can be allowed in a configuration that previously required entry into TS 3.0.3. For many cases, the current TS would require application of TS 3.0.3 simply because the configuration is outside of that defined in the TS although the plant is unlikely to actually be in a seriously degraded condition. Even in unusual cases where all trains or channels of a system required by a Limiting Condition for Operation (LCO) are inoperable, a risk assessment to determine the appropriate action time is preferable to application of TS 3.0.3. In such situations, there are often functionally redundant capabilities or the degree of degradation of the inoperable equipment would not prevent the plant level function from being achieved.

Industry Initiative 7 addresses conditions where a TS system might be declared inoperable for administrative reasons or for very low probability design-basis considerations but is otherwise able to perform its design-basis function. Application of the STPNOC CRMP may consider the degree of functionality in the determination of the calculated allowed outage time (AOT). For instance, a component that is inoperable because it is disassembled (i.e., nonfunctional) may be calculated to have a shorter AOT than the same component that is inoperable solely because of a seismic design issue or an internal flooding issue. This is due to the fact that the component's functionality is only called into question for a specific initiating event (e.g., seismic event). When the likelihood of the seismic event is

incorporated into the calculation, the result is a longer AOT, since for all other initiators the component remains capable of performing its intended function(s).

This change proposes the establishment of a new specification, TS 3.13.1, to determine risk-informed AOTs applicable to a number of identified LCOs. The proposed new TS 3.13.1 would be a separate specification in the STP Technical Specifications and would be referred to in the ACTION statement of the referencing specifications as an option to the "normal" required action. Complementary changes would be made to specific TS to reference TS 3.13.1 to allow for application of the CRMP to determine the AOT.

STP's use of TS 3.13.1 is somewhat different in format from the proposed Improved Technical Specifications (ITS) format, which incorporates the description of the alternative action directly into each LCO in the scope of the change. TS 3.13.1 accomplishes the same purpose with a "shorthand" approach to accommodate the format difference between the "old" NUREG-0452 STP Standard Technical Specifications and the ITS. However, the concept and implementation are the same.

The operator will have the option of using the existing TS AOT for routine plant activities and emergent conditions that would not be expected to require an extension of the AOT. This existing AOT will be referred to in this application as the "frontstop" time. The frontstop time also provides the operator sufficient time to determine and apply an appropriate extended time from the application of the CRMP for those situations where it is determined that an extended AOT is necessary. Once the CRMP is applied and a component has exceeded its frontstop time, the CRMP must be applied to all subsequent inoperable TS components within the scope of the CRMP to determine the AOT for the new configuration until no components are in ACTIONS beyond the frontstop time. Since the CRMP is the implementing process for 10CFR50.65(a)(4), this achieves consistency between the regulations and the Technical Specifications.

The CRMP will establish a set of risk thresholds reflecting increasing risk significance with commensurate levels of severity and actions. These actions would range from restoring equipment to service, installing temporary modifications, or rescheduling maintenance activities, up to and including transition to safer plant operating modes. The CRMP establishes a core damage probability (CDP) "Non-Risk-significant Threshold" of 1.0E-06 as the first level of threshold severity. Below this threshold, routine work controls are adequate. At or above this threshold, the operator is required to initiate action to reduce or manage the risk in accordance with the CRMP. A "Potentially Risk-Significant Threshold" is established with a CDP of 1.0E-05 to define the limit for the AOTs for plant configurations. The AOT would be calculated as the time required for the cumulative risk associated with a plant configuration to cross the threshold. Should the Potentially Risk-Significant Threshold be exceeded, TS 3.13.1 would immediately impose the required action of the most restrictive TS where the action time had been extended beyond its frontstop.

In accordance with the guidance in the NEI Risk-Managed Technical Specifications (RMTS) Guide, STP's Non-Risk-significant Threshold will be the limit for planned maintenance.

However, the AOT permitted by the TS is necessarily based on the Potentially Risk-Significant threshold to account for emergent conditions.

The new TS 3.13.1 introduces the concept of overall plant configuration risk management into the Technical Specifications. Allowable action times would be replaced for the affected specifications with an action requirement for the overall plant configuration based on the CRMP. A backstop AOT limit of 30 days is provided in the new specifications for those cases where the risk analysis by itself would allow excessively long allowable outage times for a loss of function of a TS component. The 30-day backstop would be applied individually to each LCO for which TS 3.13.1 has been invoked.

The proposed change may be applied to those structures, systems, and components (SSCs) that are supported by a plant-specific CRMP. All of the components within the scope of the proposed change are modeled in the PRA such that the revised AOT can be calculated. The LCOs and ACTIONs to which this proposed specification applies would each be modified to reference TS 3.13.1. This submittal only addresses specifications that are applicable in operating modes 1 through 4 because an approved PRA model is not yet available to cover shutdown configurations.

Approval of the changes proposed in this submittal will allow the plant to concentrate efforts in restoring and maintaining plant SSCs with the objective of maintaining low overall risk profile and reducing the likelihood of plant transients. In this way, the focus and attention to items most impacting nuclear safety are enhanced. Maintenance actions can then be prioritized based on how to most effectively limit or reduce risk due to the specific plant configuration at a specific time. This ability represents a significant and substantive technological improvement over current TS methodology. With multiple SSCs out of service, the operator would be able to prioritize efforts to address equipment that would have the biggest effect in reducing the incremental risk. If the operator cannot restore the inoperable equipment, the proposed risk-informed Technical Specifications would require the plant to transition to lower operating modes should the overall risk accumulation exceed the 1.0E-05 CDP level (Potentially Risk-Significant Threshold).

In general, the implementation of the STP Risk-Informed Technical Specifications would be consistent with the guidance in the NEI Risk Managed Technical Specifications Guide.

As shown in Table 2, STPNOC believes there can be emergent circumstances in which it is appropriate to apply the CRMP when all trains of a function are inoperable (i.e. the requirements of TS 3.13.1 may be applied to allow longer AOT than TS 3.0.3). However, STPNOC would not propose to pre-plan entry into a condition in which there is a loss of function other than relatively routine actions that have already been accepted (e.g., opening a common HVAC plenum for inspection).

Implementation is addressed in more detail with specific examples in Attachment 3.

2. Detailed Description of Proposed Changes

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Table 2 describes the proposed changes to the Technical Specifications. It includes the basis for each proposed change. The table also indicates where the STP application is extended to Industry Initiative 6 (TS 3.0.3 initiative).

The risk basis column provides the calculated AOT for the inoperable condition existing with no other SSC within the scope of the CRMP (i.e., PRA) being inoperable. To illustrate the "risk margin" a number of the functions in Table 2 depict the AOT without the application of the proposed 30-day backstop. The AOTs in this column represent "base case" and are calculated using the 1.0E-05, Potentially Risk-significant Thresholds. When "inoperable" is used in this column, it means that SSC is not capable of performing its intended function. Application of the CRMP to those conditions where the function is degraded or where operator action can be procedurally credited to restore adequate capability could result in longer AOT. The AOTs in Table 2 were determined using information from the PRA model current at the time of this application. They provide insight into the available margin. To determine AOTs for actual plant configurations, STPNOC will use the PRA or the Risk Assessment Calculator (RasCal), which is an extensive database of over 20,000 pre-calculated maintenance states.

3. Background

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STPNOC is proposing in this application to implement a risk-informed process for determining AOTs for STP Technical Specifications. The risk-informed process involves the application of the STP CRMP. The STP CRMP is also utilized by STPNOC for the implementation of 10CFR50.65(a)(4).

The current STP Technical Specifications are based on Westinghouse Standard Technical Specifications (Draft NUREG-0452 Rev. 5), which assume a two-train Engineered Safety Features (ESF) design. However, the STP utilizes a three-train ESF design. Therefore, although the STP maintains an additional ESF train above the standard Westinghouse design, the South Texas TS Limiting Conditions for Operation and associated Action Statements have not effectively addressed the availability of the third ESF train. Furthermore, traditional Technical Specifications are component and system-specific in the sense that the designated AOTs do not take into consideration the cumulative risk of various other components being in their associated individual Action Statements concurrently; instead, each Action Statement is independent of the other.

The Configuration Risk Management and Maintenance Rule Programs establish the means and methods to assess the risk due to out-of-service equipment associated with various plant configurations, including those in which multiple Technical Specification related systems are affected. Therefore, the intent of the changes to the Technical Specifications proposed in this submittal is to integrate the availability of the third ESF train along with the insights provided by the CRMP to establish risk-informed AOTs for selected Specifications and

which take into consideration the cumulative risk associated with each entry into an Action Statement.

Regulatory Guides (RG) 1.174 and 1.177 provide guidance on risk-informed licensing applications. The criteria of both of these guides are primarily oriented toward permanent changes to the Technical Specifications.

STP's operating history has shown that the extension of the AOT beyond the frontstop will not be done for most entries into the TS, whether for planned or emergent work. While the criteria of RG 1.174 and RG 1.177 would be appropriate for extensions to the frontstop, it is more appropriate to view entry into these risk-informed TS AOT extensions as occasional events where the guidance of RG 1.182 for assessing risk from maintenance activities should be applied.

RG 1.182 and RG 1.160 are used in conjunction with NUMARC 93-01 as standards for implementation of 10CFR50.65 (Maintenance Rule). Section 11.3.7.2 of NUMARC 93-01 includes recommended quantitative risk action thresholds for maintenance activities, as reproduced in the table below.

Incremental [Conditional] Core Damage Probability (ICCDP)[1]		Incremental [Conditional] Large Early Release Probability (ICLERP)[1]
> 1E-05	Configuration should not normally be entered voluntarily	> 1E-06
1E-06 – 1E-05	• Assess non-quantifiable factors • Establish risk management actions	1E-07 – 1E-06
< 1E-06	Normal work controls	< 1E-07

Note 1: For clarity and consistency of terms, the term "conditional" is added to the table heading. The calculated ICDP includes the quantified effect of the maintenance configuration (condition).

Although STPNOC does not believe RG 1.174 and 1.177 are directly applicable to this submittal, the format addresses the Principles of Risk-Informed Decision-making set forth in those RGs. Specifically, justification is provided which demonstrates that:

1. The proposed change meets the current regulations. No exemption or rule change is being requested.

   The proposed changes provide a risk-informed methodology for determining the AOTs associated with selected Technical Specifications. The proposed changes are in compliance with current regulations. The evaluations provided in this application confirm that the proposed changes maintain adequate defense-in-depth, safety margin,

and the capability to meet plant design-basis. Additionally, the risk-informed AOTs proposed are consistent with the CRMP and the Maintenance Rule in ensuring adequate margin to core damage and/or radiation release. Therefore, the proposed changes to the Technical Specifications are in compliance with all current regulations while meeting all license conditions.

Refer to Section 5.2 of this submittal for a detailed justification.

2. The proposed change is consistent with the defense-in-depth philosophy. Traditional engineering considerations have been used to demonstrate this consistency.

   The proposed Technical Specification changes preserve the existing balance between prevention of core damage, prevention of containment failure, and consequence mitigation by ensuring that AOTs are based upon the cumulative risk associated with the current plant configuration. The CRMP, in conjunction with the PRA, explicitly measures and accounts for the level of defense-in-depth from both an instantaneous and a cumulative basis. It considers plant design features, operating philosophy, and equipment capability. The ability of the CRMP to assess the level of defense-in-depth is a substantial technological improvement over current methods.

   The risk assessment will adequately consider defense-in-depth, quantitatively in the PRA model and by a qualitative assessment of the specific configuration. For most plants, application of the risk assessment will allow sufficient extension of the frontstop time to meet station needs for maintenance and corrective action. Due to the availability of STP's third ESF train, in situations where TS 3.13.1 is applied, the CRMP will generally allow a significant extension of the frontstop completion time. However, for situations in which more than one Technical Specification SSC is inoperable, the AOTs will be similar in magnitude, and in some cases shorter, than existing AOTs.

   Refer to Section 4 of this submittal for a detailed justification.

3. The proposed change maintains sufficient safety margin.

   The AOT changes proposed represent a risk-neutral to risk-beneficial change. Therefore, sufficient margins are maintained as a result of the proposed changes. Since this is a risk-informed application, no change is proposed on design-basis features of the station. There are no changes to plant safety limits or setpoints.

   Refer to Section 4 of this submittal for a detailed justification.

4. The proposed change does not measurably change overall average core damage frequency for STP. In fact, the proposed change implements a mechanism to ensure any change from any modeled core damage contributor is identified and monitored. Therefore, it can be stated that the proposed change itself does not significantly impact core damage frequency and is consistent with the Commission's Safety Goal Policy

Statement. In fact, the proposed changes will ensure that AOTs are based on and evaluated against established risk thresholds consistent with the Safety Goal Policy.

Refer to Section 4 of this submittal for a detailed justification.

5. The impact of the change should be monitored using performance measurement strategies.

   Changes to core damage frequency and cumulative risk associated with Technical Specification related equipment being out of service will continue to be monitored in accordance with the CRMP and Maintenance Rule Programs. Plant-specific performance indicators have already been identified and developed and have been in use for several years at STP.

   Refer to Section 4 of this submittal for a detailed justification.

4. Technical Analysis

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STPNOC proposes to apply a risk-informed process to determine the AOT for a number of Technical Specifications. The risk-informed process would apply the CRMP to evaluate plant configurations and determine the time required for the risk to exceed the Potentially Risk-significant Threshold of 1.0E-05 and establish the AOT for the configuration based on that time. The action required by the TS must be taken if the Potentially Risk-significant Threshold is exceeded. The CRMP would require the plant to initiate action to manage risk levels that are at or above the Non-Risk-significant threshold (1.0E-06). Because of the low risk significance of a number of components in the Technical Specifications, the process includes a "backstop" maximum AOT of 30 days.

Compliance with Design and Licensing Basis

STPNOC is proposing a risk-informed method for determining configuration based AOTs in lieu of Technical Specification LCOs.

The proposal does not include new plant design features, new operating parameters, new operating configurations, new design analyses, or new analytical assumptions. No new accidents are postulated and the mitigation for existing design-basis accidents is unchanged.

Table 2 describes basis for each of the requested changes and depicts the calculated times required to accrue risk to a 1.0E-5 incremental core damage probability (ICDP) threshold for the affected systems assuming no additional modeled systems are concurrently unavailable. For single items, these times are longer than the AOTs in the existing Technical Specifications. The longer calculated times are a result of the robust design and redundancy typical of nuclear plants, coupled with the low likelihood of design-basis initiating events. Table 2 demonstrates that the proposed changes can be managed to meet the acceptance criteria of RG 1.182.

STPNOC will continue to manage its maintenance practices to maintain good material condition of plant components. STPNOC will not unnecessarily extend out-of-service times such that equipment availability and reliability are adversely affected or in conflict with Maintenance Rule requirements. Since 1996, STPNOC has been able to routinely quantify risk from maintenance configurations. In that time, STP's maintenance history has consistently kept configuration risk in a band with an ICDP < 1.0E-06. The recent Standby Diesel Generator 22 extended outage resulted in an ICDP of about 1.2E-06 when the installation of temporary non-safety diesel generators is credited in the analysis. STP equipment reliability and availability requirements will still meet licensing and design-basis requirements established by regulations such as 10CFR50.63, "Loss of all alternating current power", and 10CFR50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants."

The 30-day AOT backstop limit established in TS 3.13.1 provides further assurance that there is no significant challenge to the design and licensing basis from the longer AOTs.

Based on the assessment above, the extended AOT will not affect design-basis assumptions for equipment availability and STPNOC concludes the proposed change does not change the design and licensing basis for STP.

Defense-in-Depth

Following the guidance provided in Regulatory Guide (RG) 1.77, the impact of the proposed Technical Specification change on the defense-in-depth is addressed below. Based on the following discussion, STPNOC has concluded that the proposed change meets the defense-in-depth principle.

- *A reasonable balance among prevention of core damage, prevention of containment failure, and consequence mitigation is preserved, i.e., the proposed change in a TS has not significantly changed the balance among these principles of prevention and mitigation, to the extent that such balance is needed to meet the acceptance criteria of the specific design-basis accidents and transients, consistent with 10 CFR 50.36. TS change requests should consider whether the anticipated operational changes associated with a TS change could introduce new accidents or transients or could increase the likelihood of an accident or transient (as is required by 10 CFR 50.92).*

  The proposed change represents a more robust technical approach that preserves a reasonable balance among prevention of core damage, prevention of containment failure, and consequence mitigation. STPNOC is proposing no changes to the design of the plant or any operating parameter. No new operating configurations are being proposed. The design-basis is not changed by the proposed changes to the Technical Specifications. The effect of the change when it is implemented will be that the CRMP will allow AOTs to vary based on the risk significance of the given plant configuration (i.e. the amount of equipment removed from service at any given time). In cases where there are multiple components inoperable in more than one train, the calculated risk-informed AOT for the

combination may be less than currently prescribed in the Technical Specifications. In many cases, the calculated AOT for a single component will be greater than what the Technical Specifications currently allow.

As discussed above, STPNOC's CRMP has shown that STPNOC's risk monitoring practices are effective. As another compensatory measure, proposed TS 3.13.1 establishes a 30-day limit on the AOTs for those components whose calculated AOTs are particularly long (the "backstop").

- *Over-reliance on programmatic activities to compensate for weaknesses in plant design is avoided, e.g., use of high reliability estimates that are primarily based on optimistic program assumptions*

  The proposed application of a plant-specific CRMP to determine AOTs uses plant-specific operating experience for component reliability and availability data. Thus, the allowances permitted by the CRMP are directly reflective of actual component performance in conjunction with component risk significance. In some cases the CRMP may use compensatory actions to reduce calculated risk in some configurations. These compensatory actions may be incorporated in procedures, work instructions, or other station media. The high degree of redundancy at STP reduces the reliance that might otherwise be placed on operator action or other programmatic activities.

STP's design includes three trains of Engineered Safety Feature (ESF) equipment, which is a robust design. Table 1 compares the defense-in-depth of STP's three-train design to the two-train design for a comparable Westinghouse PWR. Table 2 provides additional detail with respect to STP's accident mitigation capability with fewer than three trains available. The AOTs shown for STP with two of three trains out of service are roughly what would be expected to apply for a two-train plant with one of two trains out of service. The table clearly shows that significant margin is retained for either a three-train or a two-train design. The Table 2 values used to support the backstop are in most cases based on change in core damage frequency. With the exception of functions that directly affect containment capability (e.g. containment on-line purge), changes in large early release frequency are less significant than the associated change in core damage frequency.

The Standard Technical Specifications for Westinghouse plants are written for standard plants with two trains of Engineered Safety Feature (ESF) equipment. For such standard plant designs, the safety functions are degraded (loss of single failure protection) when a single train of an ESF function is inoperable, and there is a loss of safety function when two trains of an ESF function are inoperable. At STP, however, when only one of the three ESF trains is inoperable, there is more margin than for a two-train plant during conditions where one of two ESF trains is inoperable. STP does not experience a complete loss of safety function when two of three trains of an ESF function are inoperable. Because of the third ESF train, it is reasonable for the probabilistic risk assessment calculations for STP to justify relatively long AOTs when one of three trains

is inoperable, and a reasonable AOT for conditions where two of three trains are inoperable.

STPNOC proposes to apply the CRMP to determine the appropriate AOTs based on quantifying the risk associated with the plant configuration. The advantage of the CRMP is that it quickly and accurately assesses the relative significance of a given configuration, including those that involve multiple components in a single train or more than one train of equipment. The use of the CRMP proposed in this submittal is an effective method to determine the safety implications associated with multiple inoperable components. In addition, the combined CRMP enables the operator to identify the most effective actions (i.e., return to service priority) to take to restore the plant to a safer (i.e., less risk-significant) configuration and how prompt the corrective or compensatory action should be.

STP has structured its application for Risk-Informed Technical Specifications to incorporate the three train design concepts described above. The first entry in Table 2 outlines a general philosophy of a typical two-train plant and a three-train plant with risk-informed Technical Specifications. The time allowed to be in a condition with less than three trains operable is based on a reasonable time to restore operability and the capability of the remaining operable equipment. The STP Probabilistic Safety Assessment (PSA) shows that the risks incurred by the proposed AOTs are acceptable and consistent with guidance contained in the EPRI PSA Application Guide.

- *System redundancy, independence, and diversity are maintained commensurate with the expected frequency and consequences of challenges to the system, e.g., there are no risk outliers. The following items should be considered.*

- *Whether there are appropriate restrictions in place to preclude simultaneous equipment outages that would erode the principles of redundancy and diversity,*

  Application of the CRMP determines the risk significance of plant configurations. It also permits the operator to identify the equipment that has the greatest effect on the existing configuration risk. With this information, the operator can manage the out-of-service duration and determine the consequences of removing additional equipment from service. The application of the CRMP approach places high value on key safety functions and works to ensure they remain a top priority over all plant conditions.

- *Whether compensatory actions to be taken when entering the modified AOT for pre-planned maintenance are identified,*

  Application of the CRMP provides a structure to assist the operator in identifying effective compensatory actions for various plant maintenance configurations to maintain and manage acceptable risk levels.

- *Whether voluntary removal of equipment from service during plant operation should not be scheduled when adverse weather conditions are predicted or at times when the plant may be subjected to other abnormal conditions, and*

  The CRMP is based on STP's Level 1 and 2 PRA, including external events; thus, the calculated values for configuration risk include the effect of adverse weather conditions on average. Consideration of existing weather effects on specific plant configurations is accounted for in the risk-informed programmatic application of the CRMP and in the station's Severe Weather procedure. STPNOC typically considers the potential effect of weather on planned maintenance of components that could potentially be challenged during severe weather, such as Standby Diesel Generators, Turbine Driven Auxiliary Feedwater pump, and Switchyard. Compensatory measures are also taken at STP for adverse weather conditions in accordance with plant procedures (e.g., freeze protection, storm warnings and watches).

- *Whether the impact of the TS change on the safety function should be taken into consideration. For example, what is the impact of a change in the AOT for the low-pressure safety injection system on the overall availability and reliability of the low-pressure injection function?*

  Application of the CRMP incorporates the impact of the extended AOT on the availability and reliability of the affected plant-level safety functions and associated equipment. The effects will be quantified and traceable on the key figures-of-merit such as core damage frequency and large early release frequency. Managing to the actions required in proposed TS 3.13.1 and the risk-informed configuration management program will assure that the effects are known, small, and manageable. Also, the balance of availability and reliability will also be monitored and corrected in accordance with the station's compliance with the Maintenance Rule.

  In an extension of the CRMP beyond Initiative 4B, STP proposes to allow application of the CRMP to an emergent condition where more than one channel of instrumentation actuation logic is inoperable. This would allow the CRMP to be applied in conditions that previously would have required entry into TS 3.0.3.

The proposed action is a logical application of a configuration risk management program. TS 3.0.3 was created to address conditions where the other TS had no prescribed action; i.e., where the plant was in an undefined operating configuration. Application of the CRMP specifically addresses that situation by defining the risk associated with the configuration and facilitating the determination of the correct response. TS 3.0.3 prescribes only one action – shutdown. Shutdown might not be the most appropriate action and application of TS 3.13.1 and the CRMP provides the means for the operator to take a more effective and safer course of action.

Safety Margin

In accordance with RG 1.177, with sufficient safety margins:

- *Codes and standards or their alternatives approved for use by the NRC are met.*
- *Safety analysis acceptance criteria in the Licensing Basis (e.g., FSAR, supporting analyses) are met, or proposed revisions provide sufficient margin to account for analysis and data uncertainty.*

Use of the CRMP to determine AOT will not affect STPNOC's commitment to the codes and standards used in the design of STP. STPNOC is not proposing in this application to change any quality standard, material, or operating specification. Acceptance criteria for operability of equipment are not changed.

The design-basis analyses for STP remain applicable. Although STPNOC will be able to have design-basis equipment out of service longer than the current Technical Specifications allow, the actual expected increase in unavailability will be insignificant with respect to design-basis assumptions regarding accident mitigation. In addition, an increase in reliability to offset any increase in unavailability would be expected.

In support of its application for the license amendment extending the AOT for the Standby Diesel Generators (approved in Amendments 85 and 72), STP evaluated the capabilities of a single train of ESF equipment to mitigate design-basis accidents. Because the governing event is a condition where only one train of ESF equipment is postulated to be available, the analyses and evaluations performed in support of Amendments 85 and 72 are relevant to the evaluations of the changes to the AOTs being proposed in the Risk-Informed Technical Specifications. The results of the deterministic evaluation done in support of those amendments show that with only one train of ESF equipment available, and allowing for some operator actions, STP can mitigate nearly all design-basis events. The design-basis event that could not be mitigated is not considered credible (i.e., design-basis LOCA).

Table 3 depicts the capability described above for STP to mitigate design-basis accidents with only one of the three ESF trains available, such as might be postulated if a design-basis accident and worst single failure were to occur with one entire train unavailable. This is a very conservative assumption because it imposes single failure while the plant is in an ACTION statement. Were the single failure not considered, there would be no reduction in mitigation capability. The table shows that there is a substantial margin of safety.

Proposed TS 3.13.1 also helps protect the margin of safety by preventing operation for extended periods in a configuration where a single failure would cause the loss of function of a system required to mitigate a design-basis accident. Effective and timely maintenance practices will limit the time that any train of accident mitigation equipment is unavailable such that having even one train of ESF equipment out of service for 30

days (assuming a system or component where that duration is permitted by the CRMP) is expected to rarely occur. In addition, compliance with Maintenance Rule requirements and availability and reliability standards from the Revised Reactor Oversight Program will limit the time any required equipment is out of service.

5. Regulatory Safety Analysis

5.1 No Significant Hazards Determination

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The following changes to the Technical Specifications are included in the proposed license amendment:

- Proposed new TS 3.13.1 for AOTs to be determined by a risk-informed configuration risk management program and associated changes to the specific specifications that will apply TS 3.13.1
- Proposed changes to certain ACTION statements in Instrumentation TS 3.3 to delete AOTs specific to the instrument and instead to apply the required ACTION for the actuated component or system
- Proposed changes to certain ACTION statements in individual specifications to allow the application of the CRMP in accordance with the new TS 3.13.1.

In accordance with the criteria set forth in 10CFR50.92, the STP has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

1. Does the proposed change to the Technical Specifications involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed changes to the Technical Specifications to add a new TS 3.13.1 and to change specific TS to apply the new TS 3.13.1 do not involve a significant increase in the probability of an accident previously evaluated because the changes involve no change to the plant or its modes of operation. In addition, the risk-informed configuration management program will be applied to effectively manage the availability of required systems, structures, and components to assure there is no significant increase in the probability of an accident. These proposed changes do not increase the consequences of an accident because the design-basis mitigation function of the affected systems is not changed and the risk-informed configuration management program will be applied to effectively manage the availability of systems, structures and components required to mitigate the consequences of an accident. The application of the risk-informed configuration management program is considered a substantial technological improvement over current methods.

Therefore, none of the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **Does the proposed change to the Technical Specifications create the possibility of a new or different kind of accident from any accident previously evaluated?**

   None of the proposed changes involve a new mode of operation or design configuration. There are no new or different systems, structures, or components proposed by these changes. Therefore, there is no possibility of a new or different kind of accident.

3. **Does the proposed change to the Technical Specifications involve a significant reduction to a margin of safety?**

   Proposed new TS 3.13.1 and the associated changes to the specifications that apply the new TS 3.13.1 implement a risk-informed configuration management program to assure that adequate margins of safety are maintained. Application of these new specifications and the configuration management program considers cumulative effects of multiple systems or components being out of service and does so more effectively than the current Technical Specifications. Therefore, application of these new specifications will not involve a significant reduction in a margin of safety.

   Based on the evaluation above, none of the proposed changes involve a significant reduction in a margin of safety.

5.2 Applicable Regulatory Criteria

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The proposed changes will revise the AOTs associated with selected specifications so that they will be managed in accordance with a risk-informed configuration risk management programinstead of having a prescriptive time in the specification. As discussed below, this change in format and AOT management still incorporates the elements required by 10CFR50.36 for Technical Specifications.

10CFR50.36 requires that Technical Specifications contain limiting conditions for operation (LCOs). The changes proposed will retain the LCOs. The current LCOs associated with the specifications to be changed include ACTION statements that require shutdown if required conditions are not met in a specified time. 10CFR50.36 requires that: "When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." STPNOC is proposing to change the specifications to allow for a risk-informed process for determining required remedial action. The mechanism for STPNOC's change is a new TS 3.13.1 that establishes a risk-informed configuration management program for determining required actions and AOTs, up to a 30-day limit. Individual LCOs will indicate if TS 3.13.1 is applicable. Consequently, the provisions of 10CFR50.36 are met with the proposed TS 3.13.1.

STPNOC is not proposing changes that remove existing LCOs or which affect the 10CFR50.36 requirements for Safety Limits, Surveillance Requirements, Design Requirements, or Administrative Controls.

The proposed change complements recent changes to 10CFR50.65 requiring licensees to assess and manage risk associated with removing equipment from service for maintenance. The risk-informed configuration management program used to determine the AOT of the Technical Specifications also meets the requirement of 10CFR50.65(a)(4) for performing a risk assessment for equipment removed from service for maintenance.

As discussed in the section below, STPNOC is not proposing to change the design or licensing basis for STP. Compliance with other design-basis regulations (e.g., 10CFR50.49, 10CFR50.46) or the General Design Criteria is not changed.

Based on the discussion above, STPNOC concludes that the proposed changes to the LCOs to eliminate the specified required ACTION times and replace them with application of TS 3.13.1 is in compliance with regulatory requirements.

6.0 Environmental Assessment

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This proposed Technical Specification change has been evaluated against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10CFR51.21. The proposed changes meet the criteria for categorical exclusion as provided for under 10CFR51.22 (c) (9). The following is a discussion of how the proposed Technical Specification change meets the criteria for categorical exclusion.

10CFR51.22 (c) (9). Although the proposed change involves changes to requirements with respect to the use of a facility component,

(i) the proposed change involves no Significant Hazards Consideration (refer to the No Significant Hazards Consideration section of this Technical Specification Change Request),

(ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite since the proposed changes do not change the assumptions regarding generation of any radioactive effluents nor do they affect any of the permitted release paths, and

(iii)there is no significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22 (c)(9). Based on the aforementioned and pursuant to 10CFR51.22 (b), no environmental assessment or environmental impact statement need be prepared in connection with issuance of an amendment to the Technical Specifications incorporating the proposed changes of this request.

Table 1
General Case: Three-Train Design TS Requirements

System/Condition	Standard Two-Train Specification	Current STP Specification	Proposed STP Risk-Informed Specifications	Safety Evaluation	Comments
All Trains Operable	Unlimited	Unlimited	Unlimited	Two train and three train plants meet design-basis, including single failure criterion.	
1 Train Inoperable	72 hours (typ.)	7 days (typ.)	As determined by the CRMP	2-train plant: no loss of safety function, but does not meet single failure criterion. STP (3 trains): no loss of safety function; meets single failure criteria in most cases.	Application of the CRMP recognizes the defense-in-depth capabilities and limitations and provides reasonable time and technical basis to take corrective actions. CRMP also takes into account integrated plant impacts including unavailability of multiple systems, thereby performing the function of a Safety Function Determination Program.
2 Trains Inoperable	T.S 3.0.3 or equivalent	T.S. 3.0.3 or equivalent (typ.)	As determined by the CRMP	2-train plant: loss of safety function. Application of CRMP recognizes plant level functional redundancy in safety systems and the low probability of an initiating event requiring two trains for mitigation. Some time to restore the inoperable function is appropriate based on the very low probability of an initiating event while in this configuration. STP (3 trains): loss of safety function only for specific low probability events (see details below and Table 3). Retains safe shutdown capability for non-accident conditions. A risk-informed AOT is appropriate.	Application of the CRMP recognizes the capabilities and limitations and provides reasonable time to take corrective actions. CRMP also takes into account unavailability of multiple systems, thereby performing the function of a Safety Function Determination Program. Because STP typically has no action for 2 inoperable trains, TS 3.0.3 applies and this extends Initiative 4B to cover Initiative 6 for these configurations.
3 Trains Inoperable	NA	T.S. 3.0.3 or equivalent	As determined by the CRMP	Loss of safety function	Some time to restore the inoperable function is appropriate based on the very low probability of an initiating event while in this configuration. (RITS Initiative 6)

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.1.20 RTBs Action 9	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.	With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 6 hours be in at least HOT STANDBY or apply the requirements of Specification 3.13.1; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE	The reactor trip breaker motor control center can be de-energized from the control room to assure reactor trip. TS 3.13.1 would allow STP operators to take compensatory action, such as determining that one of the channels is functional.	>10 yrs. (30 day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.1.18 SI input from ESFAS 3.3.1.21 Automatic Trip and Interlock Logic Action 9A	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.	ACTION 9A is split into 9A.a for one inoperable channel and 9A.b for more than one inoperable channel. a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status, or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE. b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours	There are two channels for these functions. With only one channel inoperable, the other channel will be available to perform the function. With both channels inoperable, the proposed change retains the time limits consistent with TS 3.0.3 that would apply to current TS with more than one inoperable channel. However, the operators would be allowed to apply TS 3.13.1 if there is an adequate compensatory action or if the channel is still functional (e.g. inoperable only for seismic considerations).	484 days for one channel (train) of SSPS to be inoperable/non-functional (30 day backstop applies) If one channel (train) is inoperable and the other is non-functional, then a PRA analysis will be required. For example, inoperable only for seismic, a PRA analysis can be performed to demonstrate the risk associated with this event.	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.2.1.b -SI Automatic Actuation Logic 3.3.2.1.c - SI Actuation Relays 3.3.2.2.b - CS Automatic Actuation Logic 3.3.2.2.c CS Actuation Relays 3.3.2.3.a.2 - Containment Phase A Isolation Automatic Actuation Logic 3.3.2.3.a.3 – Containment Phase A Isolation Actuation Relays 3.3.2.3.c.1 Phase B Isolation Automatic Actuation Logic 3.3.2.3.c.2 Phase B Isolation Actuation Relays Action 14	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.	ACTION 14 is split into 14.a for one inoperable channel and 14.b for more than one inoperable channel. a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status, or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE. b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours	Except for the actuation relays, there are two channels for each of these functions. With only one channel inoperable, the other channel will be available to perform the function. Manual action is also available to perform the function. For one inoperable channel, the existing frontstop of 24 hours is adequate time to perform an assessment of the condition and determine the appropriate action and AOT. For the actuation relays, there are three channels, each associated with its ESF train. Actuation of either of the two trains of actuation logic will actuate all three ESF trains. STP can mitigate nearly all design-basis accidents with a single ESF train. With more than one channel inoperable, the proposed time limits reflect the same allowance that application of TS 3.0.3 would provide for the existing TS. With both channels inoperable, application of TS 3.13.1 will allow the operators to determine if there is a suitable compensatory action. Manual action is generally timely for most accidents that would require actuation of these functions	3.3.2.1.b – Same result as 3.3.1.18, SI Input (30 day backstop applies) 3.3.2.2b, 3.3.2.3.a.2, 3.3.2.3.c.1, no measurable impact on CDF or LERF (30 day backstop applies) Same as 3.3.1.18 and 3.3.1.21	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.2.2.d CS on Containment Pressure Hi-3 3.3.2.3.c.3 Containment Isolation Phase B on Containment Pressure Hi-3 Action 17 b. (New Action)	Existing Action (to be Action a.): With the number of OPERABLE channels one less than the Total Number of Channels, place the inoperable channel in the bypassed condition within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours. One additional channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1.	b. With the number of OPERABLE channels more than one less than the Total Number of channels, within 1 hour apply the requirements of Specification 3.13.1 or be in at least HOT SHUTDOWN within the following 6 hours.	The current requirement would be retained as Action a. and a new Action b. that applies TS 3.13.1is added for conditions where more than one channel is inoperable. The actuation logic for the subject functions is 2/4, which allows a relatively high degree of redundancy. Application of TS 3.13.1 would permit the use of compensatory actions such as placing an inoperable channel in trip. The proposed 1 hour frontstop time for ACTION b. is consistent with TS 3.0.3 that currently applies for this condition and is conservative with respect to the safety significance.	1 channel: >10 yrs. (30 days backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.2.1.a SI Manual Initiation 3.3.2.2.a CS Manual Initiation 3.3.2.3.a.1 Containment Isolation Phase A – manual initiation Action 19	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Split into ACTION 19.a and 19.b. a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 48 hours restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1,or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Automatic initiation of these functions is the primary initiation process. In addition, SI and CS can be manually aligned and started from the control room. The most critical systems for containment isolation are those that could be open to the atmosphere, which is generally limited to the normally closed RCB purge. For most design-basis events, manual alignment is adequate for mitigation. A 48 hour frontstop time for one inoperable channel is commensurate with the risk-significance of the condition. A 1 hour frontstop for more than one inoperable channel is consistent with TS 3.0.3 that would apply to the current TS.	1 channel: >10 yrs. (30 day backstop)	4B, 6
Automatic Switchover to Containment Sump: 3.3.2.7.a Automatic Actuation Logic and Actuation Relays 3.3.2.7.b RWST low-low level Action 19 to new Action 19A	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 48 hours restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	19A better reflects the one channel/train configuration and logic of this instrumentation than the proposed change to Action 19. 48 hours is an adequate frontstop time to identify appropriate compensatory action and apply TS 3.13.1	1 channel: 246 days (30 day backstop) based on switchover function in PRA	NA

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
Loss of power 3.3.2.8.a 4.16 kV ESF Bus Undervoltage - Loss Of Voltage 3.3.2.8.b. 4.16 kV ESF Bus Under Voltage – Tolerable Degraded Voltage Coincident With SI 3.3.2.8.c 4.16 kV ESF Bus Undervoltage – Sustained Degraded Voltage ACTION 20 replaced with new ACTION 20A	ACTION 20: With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: a. For Functional Units with installed bypass test capability, the inoperable channel may be placed in bypass, and must be placed in the tripped condition within 72 hours. Note: A channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1, provided no more than one channel is in bypass at any time. b. For Functional Units with no installed bypass test capability, 1. The inoperable channel is placed in the tripped condition within 72 hours, and 2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.2.1.	New ACTION 20A: a. With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 1. The inoperable channel is placed in the tripped condition within 72 hours, and 2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels. b. With the number of OPERABLE channels more than one less than the Total Number of Channels, within 1 hour apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and be in at least HOT SHUTDOWN within the following 6 hours, and be in COLD SHUTDOWN within the subsequent 24 hours.	These instruments do not have installed bypass capability, so only original ACTION 20 b. is relevant. There are four channels for each of the functions with a 2/4 actuation logic. Consequently, the function remains capable of actuation as long as there are at least two operable channels. The consequences of the function not being capable of actuating is that a single train of emergency ESF power will not start in the event of a transient or accident that involves a loss of off-site power. The two remaining trains provide adequate mitigation capability. The one-hour AOT for more than one inoperable channel is consistent with application of the current TS, which requires the application of TS 3.0.3.	The risk basis is bounded by the evaluation done for inoperable standby diesel generators in TS 3.8.1.1.	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.2.4.b Steam Line Isolation Automatic Actuation Logic and Actuation Relays 3.3.2.6.b Auxiliary Feedwater Automatic Actuation Logic 3.3.2.6.c Auxiliary Feedwater Actuation Relays Action 22	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.	Split Action 22 into 22.a. and 22.b. a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status or apply the requirements of specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE. b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within one hour restore at least one inoperable channel to OPERABLE status or apply the requirements of specification 3.13.1, or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.	Steam line isolation has 2 channels, either of which will initiate the isolation function. With one channel inoperable, the other channel is available to initiate the function. With one channel inoperable, 24 hours provides time to restore the channel or identify compensatory action that will allow the operator to apply TS 3.13.1. With both channels inoperable, the one hour action time is consistent with the requirements of TS 3.0.3 that currently applies and provides operators with an option to identify a compensatory action or determine that a degraded channel may have sufficient functionality to extend the AOT. The AFW automatic actuation logic and actuation relays are train-specific and TS 3.13.1 may be applied to provide AOTs that are consistent with the AOT for the AFW train(s) made inoperable by the inoperable actuation.	3.3.2.4.b 1 channel: >10 yrs. (30 day backstop) 3.3.2.6.b 1 channel >10 yrs. (30 day backstop) 3.3.2.6.c Train A 39.4 days, train B 736 days, train C 502 days (30 day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.2.5.a Turbine Trip and FW Isolation Automatic Actuation Logic and Actuation Relays Action 25	With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.	Split Action 25 into 25.a and 25.b. a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status, or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE. b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours.	There are two channels for these functions. With only one channel inoperable, the other channel will be available to perform the function. With both channels inoperable, TS 3.13.1 will allow the operators to determine if there is a suitable compensatory action to manage the risk. A one-hour frontstop for more than one inoperable channel is consistent with TS 3.0.3 that would apply to the current TS.	1 channel: 30 days (backstop) (No measurable impact on CDF)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.3.5.1 Atmospheric Steam Relief Valve Instrumentation Action 2	a. With one less than the required number of OPERABLE channels, restore the inoperable channel to OPERABLE status within 7 days; or be in at least HOT STANDBY within the next 6 hours. b. With two less than the required number of OPERABLE channels, restore at least three channels to OPERABLE status within 72 hours; or be in at least HOT STANDBY within the next 6 hours.	Reword Actions 2.a and 2.b to reference TS 3.13.1, and add new Action 2.c for condition where more than two channels are inoperable. a. With one less than the required number of OPERABLE channels, within 7 days restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1; or be in at least HOT STANDBY within the next 6 hours. b. With two less than the required number of OPERABLE channels, within 72 hours restore at least three channels to OPERABLE status or apply the requirements of Specification 3.13.1; or be in at least HOT STANDBY within the next 6 hours. c. With more than two less than the required number of OPERABLE channels, within 1 hour restore at least two channels to OPERABLE status or apply the requirements of Specification 3.13.1; or be in at least HOT STANDBY within the next 6 hours.	In Action 2, the inoperability of the instrument makes the associated equipment inoperable and the appropriate action is to enter the TS for that equipment. The proposed changes to allow the application of TS 3.13.1 in Action 2 will permit operators to apply AOTs to the actuating instrumentation that are consistent with the AOTs for the actuated AFW equipment.	>10 yrs. (30 day backstop)	NA

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.4.2.2 Pressurizer Code Safety Valves	With one pressurizer Code safety valve inoperable, either restore the inoperable valve to OPERABLE status within 1 hour or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.	With one or more pressurizer Code safety valves inoperable, within 1 hour either restore the inoperable valve(s) to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.	Pressurizer power-operated relief valves and pressurizer spray also provide overpressure protection. PORVs would normally provide relief such that Code safety valves would not be expected to lift. The one-hour requirement is consistent with the current TS which would require application of TS 3.0.3.	**1 inoperable safety relief valve: >10 yrs.** (30 day backstop)	4B, 6
3.4.4 Pressurizer PORVs and Associated Block Valves Action b.	With one PORV inoperable due to causes other than excessive seat leakage, within 1 hour either restore the PORV to OPERABLE status or close the associated block valve and remove power from the block valve; restore the PORV to OPERABLE status within the following 72 hours or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With one PORV inoperable due to causes other than excessive seat leakage, within 1 hour either restore the PORV to OPERABLE status or close the associated block valve and remove power from the block valve; within the following 72 hours restore the PORV to OPERABLE status or apply the requirements of Specification 3.13.1, or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	Application of TS 3.13.1 will allow an assessment of the functionality of the PORV and an assignment of an AOT that reflects the actual plant condition. The redundant PORV is still operable to perform the required safety functions. The pressurizer safety valves are still available for design-basis overpressure relief.	One inoperable PORV: 352 days (30 day backstop)	4B
3.4.4 Pressurizer PORVs and Associated Block Valves Action c.	With both PORVs inoperable due to causes other than excessive seat leakage, within 1 hour either restore at least one of the PORVs to OPERABLE status or close their associated block valves and remove power from the block valves and be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.	With both PORVs inoperable due to causes other than excessive seat leakage, within 1 hour either restore at least one of the PORVs to OPERABLE status or close their associated block valves and remove power from the block valves and apply the requirements of Specification 3.13.1, or be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.	Overpressure protection is still provided by the Code safety valves and pressurizer spray is still available for response to normal pressure fluctuations.	Both PORVs inoperable: 349 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.4.4 Pressurizer PORVs and Associated Block Valves Action d.	With one block valve inoperable, within 1 hour restore the block valve to operable status or place its associated PORV in closed position; restore the block valve to operable status within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With one block valve inoperable, within 1 hour restore the block valve to OPERABLE status or place its associated PORV in closed position; within 72 hours restore the block valve to OPERABLE status or apply the requirements of Specification 3.13.1; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	The existing required action makes no distinction regarding the degree of functionality of the block valve. A degraded block valve may be able to perform its expected function. A minor administrative format change is made to put OPERABLE in all capital letters.	>10 yrs. (30 day backstop)	4B
3.4.4 Pressurizer PORVs and Associated Block Valves Action e.	With both block valves inoperable, within 1 hour restore the block valves to operable status or place the associated PORVs in the closed position; restore at least one block valve to OPERABLE status within the next hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With both block valves inoperable, within 1 hour restore the block valves to OPERABLE status or place the associated PORVs in the closed position; restore at least one block valve to OPERABLE status within the next hour or apply the requirements of Specification 3.13.1; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	The existing requirement for restoration of operability within one hour is inadequate time to take reasonable action. A minor administrative format change is made to put OPERABLE in all capital letters.	>10 yrs. (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.5.1 Safety Injection System Accumulators Action a.	With one accumulator inoperable, except as a result of boron concentration outside the required limits, restore the inoperable accumulator to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.	With one or more accumulators inoperable, except as a result of boron concentration outside the required limits, within 1 hour restore the inoperable accumulator(s) to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.	The accumulators would only be expected to be used for the most unlikely accidents. An assessment can be performed to determine the significance of the condition and if compensatory actions are necessary. The one-hour requirement is a conservative time considering the low risk significance of these components and is consistent with TS 3.0.3 which would apply for more than one inoperable accumulator in the current TS. It is more restrictive than the 24 hours currently permitted for one inoperable accumulator; however, STPNOC would likely "pre-assess" the inoperable accumulator in the CRMP.	1 inoperable accumulator: 2700 days (30 day backstop) 2 inoperable accumulators: 360 days (30 day backstop)	4B, 6
3.5.1 Safety Injection System Accumulators Action b.	With the boron concentration of one accumulator outside the required limit, restore the boron concentration to within the required limits within 72 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.	With the boron concentration of one or more accumulators outside the required limit, within 1 hour restore the boron concentration to within the required limits or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.	Accumulator boron concentration deviations are not likely to be significantly outside required limits. Conservatism in the accident analysis provides reasonable assurance that the accumulators would still provide their required function even with concentration outside the limits. The one-hour requirement is a conservative time considering the low risk significance of these components and is consistent with TS 3.0.3 which would apply for more than one accumulator with boron concentration out of limit in the current TS. It is more restrictive than the 72 hours currently permitted for one accumulator with boron concentration out of limit; however, STPNOC would likely "pre-assess" the inoperable accumulator in the CRMP.	Although boron concentration is not specifically modeled, the evaluation for the availability of the accumulator in ACTION a. applies for this condition.	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.5.2 ECCS in MODES 1,2, & 3 Action a.	With less than the above subsystems OPERABLE, but with at least two High Head Safety Injection pumps in an OPERABLE status, two Low Head Safety Injection pumps and associated RHR heat exchangers in an OPERABLE status, and sufficient flow paths to accommodate these OPERABLE Safety Injection pumps and RHR heat exchangers,** restore the inoperable subsystem(s) to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With less than the above subsystems OPERABLE, but with at least two High Head Safety Injection pumps in an OPERABLE status, two Low Head Safety Injection pumps and associated RHR heat exchangers in an OPERABLE status, and sufficient flow paths to accommodate these OPERABLE Safety Injection pumps and RHR heat exchangers,** within 7 days restore the inoperable subsystem(s) to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With 1 inoperable train of SI, there is no loss of safety function, and STP meets single failure except for specific low probability events.	1 inoperable train Train A 190 days, train B 2087 days, train C 2205 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.5.2 ECCS in MODES 1,2, & 3 Action b.	Existing ACTION b. moved to ACTION c.	New ACTION b. With less than two of the required subsystems OPERABLE, within 1 hour restore at least one subsystem to OPERABLE status and apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With 2 inoperable trains of SI there is generally not a loss of safety function, although STP cannot mitigate LBLOCA if the SI train is injecting into the broken RCS loop. Mitigation of SBLOCA with SI in the broken loop requires operator action. Steam line break mitigation is impaired, but DNB is not expected to occur. With no operable trains, STP loses the SI safety function; however, a risk-informed AOT is appropriate to accommodate specific situations where the SI trains are degraded but still functional and to allow for timely actions commensurate with the actual significance of the condition. The proposed 1 hour time limit is consistent with the requirement of TS 3.0.3 which would apply to the current TS.	2 inoperable trains - 35 days (30day backstop) 3 inoperable trains 5 hours With more than one inoperable train, the application of TS 3.13.1 is proposed as a requirement rather than an option. This accounts for the potential risk-significance of a configuration where the HHSI function could be affected.	4B, 6
3.5.2 ECCS in MODES 1,2, & 3 Action c.	No ACTION c.	In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be submitted within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.	Administrative change to accommodate new ACTION b. No change to the TS requirement.	NA	Admin.

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.5.5 RWST MODE 1,2, 3, 4	With the RWST inoperable, restore the tank to OPERABLE status within 1 hour or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.	With the RWST inoperable, within 1 hour restore the tank to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.	The proposed action allows the operator to make a determination based on the specific situation and the degree of degradation of the RWST. A number of situations may make the RWST inoperable, but still functional (e.g., boron concentration slightly low or an ASME Code question).	5 hours (based on RWST not being available)	4B
3.5.6 RHR MODE 1, 2, 3 Action a	With one RHR loop inoperable, restore the required loop to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With one RHR loop inoperable, within 7 days restore the required loop to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	The proposed action is justified by the plant-specific function of RHR and the degree of redundancy at STP. STP's RHR does not perform a SI function. It is required only for long-term cooling after shutdown or post-accident. In post-LOCA conditions, LHSI is functionally redundant.	1 inoperable RHR train: >10 yrs. (30 day backstop)	4B
3.5.6 RHR MODE 1, 2, 3 Action b	With two RHR loops inoperable, restore at least two RHR loops to OPERABLE status within 24 hours or be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.	With two RHR loops inoperable, within 24 hours restore at least two RHR loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.	The proposed action is justified by the plant-specific function of RHR and the degree of redundancy at STP. STP's RHR does not perform a SI function. It is required only for long-term cooling after shutdown or post-accident. In post-LOCA conditions, LHSI is functionally redundant.	2 inoperableRHR trains: 524 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.6.1.7 Containment Ventilation Action b	With the 18-inch supplementary containment purge supply and/or exhaust isolation valve(s) open for reasons other than given in Specification 3.6.1.7.b. above, close the open 18-inch valve(s) or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.	With the 18-inch supplementary containment purge supply and/or exhaust isolation valve(s) open for reasons other than given in Specification 3.6.1.7.b. above, within 4 hours close the open 18-inch valve(s) or isolate the penetration(s), or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.	Pre-planned operator action can reasonably be credited to close these valves for most accident conditions.	No impact on CDF. 65 days based on change in LERF and assuming the valve is open. (30 day backstop)	4B
3.6.1.7 Containment Ventilation Action c	With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3, restore the inoperable valve(s) to OPERABLE status or isolate the penetrations so that the measured leakage rate does not exceed the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3 within 24 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.	With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3, within 24 hours restore the inoperable valve(s) to OPERABLE status or isolate the penetrations so that the measured leakage rate does not exceed the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3 or apply the requirements of Specification 3.13.1; otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	24 hours provides adequate time to perform an assessment to determine acceptable alternative action and time needed to address an inoperable containment purge isolation valve.	Bounded by 3.6.1.7 Action b assessment. (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.6.2.1 Containment Spray (Note 2)	With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.	With one Containment Spray System inoperable, within 7 days restore the inoperable Spray System to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	The Containment Spray System is comprised of 3 trains. 2 operable trains meet the design-basis and 1 train is adequate to perform the system function at a degraded level. Reactor Containment Fan Coolers provide functionally redundant containment heat removal capability. Compensatory actions can be taken to reduce Iodine contribution to operator dose. Deletion of the 48 hour provision between HOT STANDBY and COLD SHUTDOWN would normally be a more restrictive change, but the 48 hours is no longer relevant with the application of TS 3.13.1.	>10 yrs. based on LERF (30-day backstop) The Containment Spray System is not risk-significant.	4B
3.6.2.1 Containment Spray New Action b.	The current TS have no action for more than one train of CS inoperable and TS 3.0.3 would apply.	With more than one Containment Spray System inoperable, within 1 hour restore at least one inoperable Spray System to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Reactor Containment Fan Coolers provide functionally redundant containment heat removal capability. Evaluations performed for STP TS Amendments 85/72 determined that a single train of RCFCs and Containment Spray is adequate for containment heat removal and RCB pressure control in accident conditions. Compensatory actions can be taken to reduce Iodine contribution to operator dose. The proposed time limit of 1 hour is consistent with the time limit of TS 3.0.3 which would apply to the current TS for more than one inoperable train of CS.	>10 yrs. based on LERF (30-day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.6.2.3 Reactor Containment Fan Coolers (Note 2)	With one group of the above required Reactor Containment Fan Coolers inoperable, restore the inoperable group of RCFC to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With one group of the above required Reactor Containment Fan Coolers inoperable, within 7 days restore the inoperable group of RCFC to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Three trains of RCFCs provide a high degree of redundancy and Containment Spray is *functionally redundant for heat removal.*	>10 yrs. based on CDF, no effect on LERF. (30-day backstop)	4B
3.6.2.3 Reactor Containment Fan Coolers New Action b.	The current TS have no action for more than one group of RCFCs inoperable and TS 3.0.3 would apply.	With more than one group of the above required Reactor Containment Fan Coolers inoperable, within 1 hour restore at least two groups of RCFC to OPERABLE status or apply the requirements of Specification 3.13.1, *or be in at least* HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Three trains of RCFCs provide a high degree of redundancy and Containment Spray is functionally redundant for heat removal. The 1 hour for a "frontstop" time is conservative considering the low risk-significance of the system and degree of redundancy. Evaluations performed for STP TS Amendments 85/72 determined that a single train of RCFCs and Containment Spray is adequate for containment heat removal and RCB pressure control in accident conditions. The one hour is consistent with TS 3.0.3 which the current TS would apply to more than one inoperable group of RCFCs.	>10 yrs. (30-day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.6.3 Containment Isolation Valves (Added new ACTION d. and changed existing ACTION d. to ACTION e.)	With one or more of the isolation valve(s) inoperable, maintain at least one isolation barrier* OPERABLE in each affected penetration that is open and: a. Restore the inoperable valve(s) to OPERABLE status within 24 hours, or b. Isolate each affected penetration within 24 hours by use of at least one deactivated automatic valve secured in the isolation position, or check valve with flow through the valve secured**, or c. Isolate each affected penetration within 24 hours by use of at least one closed manual valve or blind flange, or d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With one or more of the isolation valve(s) inoperable, maintain at least one isolation barrier* OPERABLE in each affected penetration that is open and within 24 hours: a. Restore the inoperable valve(s) to OPERABLE status, or b. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolation position, or check valve with flow through the valve secured**, or c. Isolate each affected penetration by use of at least one closed manual valve or blind flange, or d. Apply the requirements of Specification 3.13.1 Or Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	The proposed change to this specification adds ACTION d. to allow the application of Specification 3.13.1. The existing action time of 24 hours is not changed. 24 hours is sufficient time to perform a risk assessment of the condition to determine if additional time may be taken for corrective maintenance before closing the affected penetration.	>10 yrs. (30 day backstop) Application of TS 3.13.1 would evaluate the function of the individual valve(s) that are affected with respect to the functionality of their associated system.	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.1.2 Auxiliary Feedwater Action b.	b. With the turbine-driven auxiliary feedwater pump inoperable, or with any two auxiliary feedwater pumps inoperable, restore the affected auxiliary feedwater pump(s) to OPERABLE status within 72 hours. The provisions of Specification 3.0.4 are not applicable for entry into Mode 3 for the turbine-driven pump.	b. With the turbine-driven auxiliary feedwater pump inoperable, or with any two auxiliary feedwater pumps inoperable, within 72 hours restore the affected auxiliary feedwater pump(s) to OPERABLE status or apply the requirements of Specification 3.13.1. The provisions of Specification 3.0.4 are not applicable for entry into Mode 3 for the turbine-driven pump.	STP's design is highly redundant with 3 motor-driven AFW pumps and 1 turbine-driven AFW pump. Proposed change to Action b. permits the application of TS 3.13.1 and uses the existing 72 hour action time. The existing 72 hour AOT is conservative with respect to the redundancy in the STP design. Additional justification is provided in letter dated December 3, 2001 (NOC-AE-01001196) that is the basis for the existing AFW AOTs.	1 inoperable train: TDAFW: 340 days MDAFW: 502 days (30 day backstop) 2 inoperable MDAFW: 7.5 days	4B
3.7.1.3 Auxiliary Feedwater Storage Tank	With the AFST inoperable, within 4 hours restore the AFST to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	With the AFST inoperable, within 4 hours restore the AFST to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	Application of TS 3.13.1 is appropriate. The cause for the inoperability of the AFWST might be such that it would be unsafe to shutdown to a condition where the tank was required. More likely, the tank would be degraded but functional or other compensatory actions could be implemented (e.g., tank fill options) such that an extended AOT would be justified.	1 1/2 hours (assumes the AFST is unavailable; however, shutdown is not appropriate nor required by the TS with no AFW available to remove decay heat. (See TS 3.7.1.2.d) 8 hours for tank level	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.1.5 Main Steam Isolation Valves	MODE 1: With one MSIV inoperable but open, POWER OPERATION may continue provided the inoperable valve is restored to OPERABLE status within 4 hours; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. MODES 2 and 3 With one MSIV inoperable, subsequent operation in MODE 2 or 3 may proceed provided the isolation valve is maintained closed. Otherwise, be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.	Change APPLICABILITY from MODE 1, 2, and 3 to "MSIVs open in MODE 1, 2, and 3" With a MSIV inoperable, within 1 hour close or restore the inoperable valve to OPERABLE status, or apply the requirements of Specification 3.13.1; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. Note: Separate condition entry is permitted for each MSIV.	The APPLICABILITY is revised to apply only to open MSIVs in MODE 1, 2, and 3. This change is essentially administrative since the current Action only applies to open MSIVs. The terminology "but open" is deleted from Action 1 because it becomes redundant. This has no safety implications because the MSIVs are performing their design function if they are closed. The distinction between MODE 1 and MODEs 2 and 3 is deleted because the revised action includes a provision to close the valve and there is no difference in the end-state MODE if TS 3.13.1 is not applied. The addition of the note for separate condition entry for each inoperable MSIV allows more than one inoperable MSIV and is better wording in this TS than "with one or more..." used elsewhere. 1 hour is a conservative time to determine the risk significance of the condition. The assessment may determine that although a MSIV is not operable under all aspects of the TS definition, it is still functional and additional time can be taken to restore it to operability. 1 hour is consistent with the current TS requirement to apply TS 3.0.3 for more than one inoperable MSIV.	1 inoperable MSIV: >10 yrs. 2 inoperable MSIV: 410 days (30 day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.1.6 Atmospheric Steam Relief Valves Action a.	With one less than the required atmospheric steam relief valves OPERABLE, restore the required atmospheric steam relief valves to OPERABLE status within 7 days; or be in at least HOT STANDBY with the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.	With one less than the required atmospheric steam relief valves OPERABLE, within 7 days restore the required atmospheric steam relief valves to OPERABLE status or apply the requirements of Specification 3.13.1 or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.	7 days is adequate time to determine alternative action and AOT. Additional AOT will probably be justifiable based on the expected availability of the condenser and associated steam dumps. A minor editorial correction was made to correct "with" to "within".	1 inoperable SG PORV: >790 days (30 day backstop)	4B
3.7.1.6 Atmospheric Steam Relief Valves Action b.	With two less than the required atmospheric relief valves OPERABLE, restore at least three atmospheric relief valves to OPERABLE status within 72 hours or be in at least HOT STANDBY with the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.	With two or more less than the required atmospheric relief valves OPERABLE, within 1 hour restore at least three atmospheric relief valves to OPERABLE status or apply the requirements of Specification 3.13.1 or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.	1 hour is a conservative time to determine alternative action and AOT. Additional AOT is likely to be justifiable based on the expected availability of the condenser and associated steam dumps. The 1-hour limit is consistent with the limit of TS 3.0.3 which current TS would require with more than 2 less than the required number of operable valves. A minor editorial correction was made to correct "with" to "within".	2 inoperable SG PORVs: 83 days (30 day backstop)	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.1.7 Main Feedwater Isolation Valves	MODES 1 and 2: With one MFIV inoperable but open, operation may continue provided the inoperable valve is restored to OPERABLE status within 4 hours; otherwise be in HOT STANDBY within the next 6 hours. MODE 3: With one MFIV inoperable, subsequent operation in MODE 3 may proceed provided the isolation valve is maintained closed. Otherwise, be in HOT SHUTDOWN within the next 6 hours.	Change APPLICABILITY from MODE 1, 2, and 3 to "MFIVs open in MODE 1, 2, and 3" With a MFIV inoperable, within 1 hour close or restore the inoperable valve to OPERABLE status or apply the requirements of Specification 3.13.1; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the next 6 hours. Note: Separate condition entry is permitted for each MFIV.	The APPLICABILITY is revised to apply only to open MFIVs in MODE 1, 2, and 3. This change is essentially administrative since the current Action only applies to open MFIVs. The terminology "but open" is deleted from the Action because it becomes redundant. This has no safety implications because the MFIVs are performing their design function if they are closed. There are adequate compensatory actions available for inoperable MFIVs to permit successful application of TS 3.13.1, including the redundant function provided by the feed regulating valves. These compensatory actions are already recognized in NUREG-1431. The proposed action time of 1 hour is conservative and consistent with the time that would be required by current TS application of TS 3.0.3 for more than one inoperable MFIV. The addition of the note for separate condition entry for each inoperable MFIV allows more than one inoperable MFIV and is better wording in this TS than "with one or more..." used elsewhere. The addition of the action to be in HOT SHUTDOWN in the following 6 hours to the MODE 1 and 2 action allows the MODE 3 action to be combined so that there is a single action.	One FWIV: >10 yrs.(30 day Backstop) Two FWIVs: 410 days (30 day backstop) Three FWIVs: 295 days (30 day Backstop) Four FWIVs: 295 days (30 day Backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.3 Component Cooling Water	With only two component cooling water loops OPERABLE, restore at least three loops to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	a. With only two component cooling water loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	CCW has a high degree of redundancy. With one inoperable train, the system generally still meets the single failure criteria with only modest degradation. The 7-day frontstop time is not representative of the safety significance of one train of CCW being inoperable. Proposed as Action a. because of proposed new Action b. below.	1 inoperable train of CCW: >10 yrs. (30 day backstop)	4B
3.7.3 Component Cooling Water Proposed new Action b.	The current TS do not have an action for more than one inoperable train of CCW. TS 3.0.3 would apply.	b. With two or more component cooling water loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	Evaluations performed for STP Amendments 85/72 showed that a single train of CCW is adequate for safe shutdown and accident mitigation with only modest degradation in capability. The one-hour time is conservative and consistent with TS 3.0.3 which would be required by current TS for more than one inoperable train of CCW.	2 inoperable trains of CCW: 278 days	4B, 6
3.7.4 Essential Cooling Water	With only two essential cooling water loops OPERABLE, restore at least three loops to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	a. With only two essential cooling water loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With a single train of ECW inoperable there is no loss of safety function, and the plant generally meets single failure for most probable design-basis events. Proposed as Action a. because of proposed new Action b. below.	1 inoperable train of ECW 99 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.7.4 Essential Cooling Water Proposed new Action b.	The current TS do not have an action for more than one inoperable train of ECW. TS 3.0.3 would apply.	With two or more essential cooling water loops inoperable, within1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With two inoperable ECW trains, the plant retains its capability to mitigate a design-basis accident. The one-hour time is conservative and consistent with TS 3.0.3 which would be required by current TS for more than one inoperable train of ECW.	2 inoperable trains of ECW: 102 hours	4B, 6
3.7.14 Essential Chilled Water	With only two Essential Chilled Water System loops OPERABLE, restore three loops to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	a. With only two Essential Chilled Water System loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With a single train of EChW inoperable there is no loss of safety function, and the plant generally meets single failure for most probable design-basis events. Proposed as Action a. because of proposed new Action b. below.	1 inoperable train of EChW: >2900 days (30 day backstop)	4B
3.7.14 Essential Chilled Water New Action b.	The current TS do not have an action for more than one inoperable train of EChW. TS 3.0.3 would apply.	b. With two or more Essential Chilled Water System loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With two inoperable EChW trains, the plant retains its capability to mitigate a design-basis accident. The one-hour time is conservative and consistent with TS 3.0.3 which would be required by current TS for more than one inoperable train of EChW.	2 inoperable trains of EChW: 36 days (30 day backstop) All three trains of EChW inoperable: 74 hours	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 A.C. Sources Operating Action a.	With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.	With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Within 72 hours restore the offsite circuit to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.	STP's switchyard is served by 8 incoming lines. Three transformers are available to each unit to power the 13.8 KV buses that supply the 4.16 KV emergency buses. There are 3 trains of ESF power, only one of which is required to achieve and maintain safe shutdown. This is a very reliable and redundant power supply system. 72 hours is adequate to determine an alternate action or justify addition time to restore the condition.	Assuming loss of the 13.8kV bus supply to a safety bus, 1460 days to 1E-05 (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 Action b	With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator separately within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). Restore the inoperable standby diesel generator to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.(12)	With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator separately within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). Within 14 days restore the inoperable standby diesel generator to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. (12)	With one inoperable Standby Diesel Generator (SDG), STP has no loss of safety function and generally meets the single failure criteria.	1 SDG inoperable: 168 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 Action c	With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s); restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits to OPERABLE status within 72 hours and three standby diesel generators to OPERABLE status within 14 days from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (12)	With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generator(s) by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generators; within 12 hours restore at least one of the inoperable sources to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (12)	Deletion of the requirement to restore at least two offsite circuits to OPERABLE status within 72 hours and three standby diesel generators to OPERABLE status within 14 days from the time of initial loss is not a change because proper application of the TS would require this.	1 inoperable off-site circuit: 158 days (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 Action d.	With one standby diesel generator inoperable in addition to ACTION b. or c. above, verify that: 1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and 2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE. If these conditions are not satisfied within 24 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With one standby diesel generator inoperable in addition to ACTION b. or c. above, within 24 hours apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	24 hours is adequate time to determine the risk significance of the configuration. If there are inoperable cross-train components, the AOT should depend on the risk significance of the specific configuration. For instance, an inoperable cross-train accumulator or reactor containment fan cooler would be of low significance and additional time can be justified if necessary.	184 hours	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 Action e.	With two of the above required offsite A.C. circuits inoperable, restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With two of the above required offsite A.C. circuits inoperable, within 24 hours restore at least one of the inoperable offsite sources to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours.	In this configuration, STP still has at least one ESF bus powered from off-site power. 24 hours is adequate time to determine the appropriate action and allowable time to restore the inoperable off-site power. This is not an expected configuration. Were it to occur, grid stability might be a factor and a plant shutdown could exacerbate the degraded condition. TS 3.13.1 provides an appropriate mechanism to respond to the condition.	Train A 198 days, train B 772 days, train C 918 days. (30 day backstop)	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.1.1 Action f	With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one standby diesel generator to OPERABLE status within 2 hours and at least two standby diesel generators to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least three standby diesel generators to OPERABLE status within 14 days from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (12)	With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; within 12 hours restore at least one standby diesel generator to OPERABLE status and apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (12)	With 2 inoperable SDGs, STP does not lose the safety function and can meet almost all its design bases. Deleting the requirement to restore at least three standby diesel generators to OPERABLE status within 14 days from time of initial loss is not a change since proper application of the TS requires this interpretation without it being stated.	2 SDGs inoperable: 184 hours All three SDGs inoperable: 36 hours	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.2.1 D.C. Sources	a. With one of the required battery banks inoperable, restore the inoperable battery bank to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. b. With no battery chargers for a channel OPERABLE, restore at least one battery charger to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With less than the required battery banks or battery chargers OPERABLE, within 1 hour restore the inoperable battery bank or battery charger, or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	STP has 4 battery banks, each with two full capacity chargers. The chargers are even less risk-significant due to their redundancy. The proposed 1hour time limit is consistent with TS 3.0.3 which would be required by the current TS for more than one inoperable battery bank.	1 inoperable battery bank: 140 days (Train D 1042 days) (30 day backstop)	4B, 6
3.8.3.1 Onsite Power Distribution Operating Action a.	With one of the required trains of A.C. ESF busses not fully energized, reenergize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With the required trains of A.C. ESF busses not fully energized, within 1 hour reenergize the train or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	1 hour is a conservative time to assess the configuration and determine the appropriate action and AOT. The time is consistent with TS 3.0.3 which would currently apply for conditions with more than one required bus not fully energized. Extending the time further can be justified due to the redundancy of the ESF power. STP does not lose the safety function unless all three trains of ESF power are lost.	1 inoperable AC ESF bus: Train A 22 days, train B 58 days, train C 79 days. Loss of a single AC ESF bus does not result in a plant trip. Only one of three available trains would be affected.	4B, 6

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
3.8.3.1 Action b.	With one A.C. vital distribution panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) reenergize the A.C. distribution panel within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With one or more A.C. vital distribution panel(s) either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize the A.C. distribution panel(s) or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 24 hours reenergize the A.C. vital distribution panel(s) from its associated inverter connected to its associated D.C. bus or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	1 hour is a conservative time for an assessment to determine an appropriate AOT for the configuration. It is consistent with TS 3.0.3 which would currently apply if more than one vital distribution panel was not properly energized. The redundancy of the STP electrical power systems will provide adequate justification for extending the time beyond 2 hours. Additional assessments may be performed to determine the time needed to re-energize the panel(s) from the associated inverter. The panels can also be powered from an alternate 1E diesel backed bus.	1 inoperable inverter: 278 days (30 day backstop) 2 inoperable inverters: 16 days 1 inoperable bus: 208 days (30 day backstop) 2 inoperable buses: 8 days	4B, 6
3.8.3.1 Action c.	With one D.C. bus not energized from its associated battery bank, reenergize the D.C. bus from its associated battery bank within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	With one or more D.C. bus(es) not energized from its associated battery bank, within 1 hour reenergize the D.C. bus(es) from its associated battery bank or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.	STP has 4 battery banks, each with two full capacity chargers. STP can lose up to two battery banks without jeopardizing a safety function. 1 hour is consistent with the time requirement of TS 3.0.3 which would currently apply with more than one bus not energized from its associated battery bank.	Currently loss of Bus A or B results in a plant trip. Loss of Bus C – 95 days, Bus D 343 days.	4B
3.13.1	Did not exist	Defines the actions to take at changing risk levels of the plant configuration	As described for the individual applications	As described for the individual applications	4B

Table 2
Detailed Description of Changes and Basis

Specification Number	Old Action Requirement	New Action Requirement	Technical Discussion and Comments	Risk Basis Calculated STP AOT Before Backstop (base case)1	RITS Initiative
BASES 3.13.1		Section added to explain these new specifications	The Bases are provided for information and the final version will be sent for incorporation into the NRC copy of STP's TS after approval of the proposed amendment.		4B

1. Base case is number of hours to exceed the CRMP Potentially Risk-significant Threshold for core damage probability (1E-05) assuming no other systems are inoperable. The Base Case Action Level where compensatory action must be initiated is 1E-06, or 10% of the time allowed to the 1E-05 Base Case. Note that the proposed backstop time will establish the AOT for conditions where the CRMP calculated time exceeds 30 days.
2. Containment Spray and Reactor Containment Fan Cooler action levels have no dependency on core damage frequency and are based on contributions to large early release frequency.
3. This table may include actions from proposed TS changes that are not yet approved. Differences will be reconciled when STPNOC submits the actual license amendment request. Information from proposed changes is included to provide a more accurate representation of what STPNOC expects the risk-informed application to include.

Table 3
STP Systems with Reduced Design-basis Capability in Single Train Operation

System	Function Affected	Alternative Action	Event Probability†	Comments
Safety Injection (LHSI and HHSI)	Cannot mitigate LBLOCA if the SI train is injecting into the broken RCS loop	None (minimal cooling from using hot leg recirculation)	1.91E-10 Note: Accounts for a 25% chance of injecting in broken loop. (Leak before break not credited.)	One train in maintenance outage One train fails One train injects into the broken loop.
Safety Injection (HHSI)	Steam line break mitigation capability reduced	None required	2.25E-8 Note: Accounts for a rupture either inside or outside containment.	DNB not expected to occur
Safety Injection (LHSI and HHSI)	Cannot mitigate SBLOCA without operator action if the SI train is injecting into the broken RCS loop	Operator action per EOPs to depressurize	1.75E-9 Note: No credit taken for operator action to depressurize	One train in maintenance. One train fails. One train of HHSI not enough to match break flow Operator action is expected to be effective
Residual Heat Removal	Cannot provide long term cooling if only a single ESF bus is energized or if RHR is injecting into broken loop	Continue to inject using LHSI until RHR is restored.	See Comments	RHR is required approximately 14 hours after event. Recovery of power to ESF bus is expected within 8 hours
Containment Spray	Iodine removal during a LBLOCA or SBLOCA	Monitor TSC doses and relocate to lower dose area	1.97E-8 Note: Assuming most probable event of SBLOCA	

Table 3
STP Systems with Reduced Design-basis Capability in Single Train Operation

System	Function Affected	Alternative Action	Event Probability†	Comments
Control Room Envelope HVAC	Cannot maintain 1/8" positive pressure	Positive pressure is expected to be maintained, so system is expected to be functional	7.64E-10 Note: This is the probability of a LBLOCA, failure of DG and LOOP while in the AOT.	
Fuel Handling Building HVAC	Cannot provide filter path for recirculation phase leakage if C train is only operable train	Provide alternate power supply from operable diesel	6.37E-11 Note: Due to design dependencies probabilities are calculated based on trains A or B being operable	
Component Cooling Water	CCW flow to RCFC's and RHR Heat Exchanger less than design	Manually isolate non-safety header to restore design flow.	5.75E-5 Note: Accounts for the probability of train C isolating non-safety flows	If train C is the operable train, CCW flow approximates design flow. Effect of reduced CCW flow is slight even without manual action.

† The event probability is the likelihood of an initiating event (i.e., Large Break LOCA) with a loss of offsite power and failure of a standby diesel generator given a diesel generator is unavailable for 21 days while another train is out of service. It conservatively does not include recovery factors or support system failures.

Tech Spec Mark-Up Pages

NO CHANGES

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE with RESPONSE TIMES as shown in Chapter 16 in the Updated Final Safety Analysis Report (UFSAR).

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by the performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.

4.3.1.2 The REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Each verification shall include at least one train such that both trains are verified at least once per 36 months and one channel per function such that all channels are verified at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

NO CHANGES

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2	1
	2	1	2	3*, 4*, 5*	10
2. Power Range, Neutron Flux					
a. High Setpoint	4	2	3	1, 2	2
b. Low Setpoint	4	2	3	1###, 2	2
3. Power Range, Neutron Flux High Positive Rate	4	2	3	1, 2	2
4. Deleted					
5. Intermediate Range, Neutron Flux	2	1	2	1###, 2	3
6. Source Range, Neutron Flux					
a. Startup	2	1	2	2##	4
b. Shutdown	2	1	2	3*, 4*, 5*	10
7. Extended Range, Neutron Flux	2	0	2	3, 4, 5	5
8. Overtemperature ΔT	4	2	3	1, 2	6
9. Overpower ΔT	4	2	3	1, 2	6
10. Pressurizer Pressure -- Low (Interlocked with P-7)	4	2	3	1	6
11. Pressurizer Pressure—High	4	2	3	1, 2	6
12. Pressurizer Water Level--High (Interlocked with P-7)	4	2	3	1	6

NO CHANGES

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
13. Reactor Coolant Flow--Low					
a. Single Loop (Above P-8)	3/1oop	2/loop in any operating loop	2/loop in each operating loop	1	6
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop each operating loop	1	6
14. Steam Generator Water Level--Low-Low	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm. gen. each operating stm. gen.	1, 2	6
15. Undervoltage--Reactor Coolant Pumps (Interlocked with P-7)	4-1/bus	2	3	1	6
16. Underfrequency--Reactor Coolant Pumps (Interlocked with P-7)	4-1/bus	2	3	1	6
17. Turbine Trip (Interlocked with P-9)					
a. Low Emergency Trip Fluid Pressure	3	2	2	1	6
b. Turbine Stop Valve Closure	4	2	3	1	6

NO CHANGES

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
18. Safety Injection Input from ESFAS	2	1	2	1, 2	9A
19. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	2	1	2	2##	8
b. Low Power Reactor Trips Block, P-7					
P-10 Input	4	2	3	1	8
or					
P-13 Input	2	1	2	1	8
c. Power Range Neutron Flux, P-8	4	2	3	1	8
d. Power Range Neutron Flux, P-9	4	2	3	1	8
e. Power Range Neutron Flux, P-10	4	2	3	1, 2	8
f. Turbine Impulse Chamber Pressure, P-13	2	1	2	1	8
20. Reactor Trip Breakers	2	1	2	1, 2	9, 12
	2	1	2	3*, 4*, 5*	10

NO CHANGES

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
21. Automatic Trip and Interlock Logic	2	1	2	1, 2	9A
	2	1	2	3*, 4*, 5*	10

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 7 - (Not Used)

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 9 - With the number of OPERABLE channels ~~one~~ less than the Minimum Channels OPERABLE requirement, **within 6 hours apply the requirements of Specification 3.13.1 or** be in at least HOT STANDBY ~~within 6 hours~~; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

ACTION 9A – **a.** With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, **within 24 hours** restore the inoperable channel to OPERABLE status ~~within 24 hours~~, **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours.

ACTION 10 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers within the next hour.

ACTION 11 - (Not Used)

ACTION 12 - With one of the diverse trip features (undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 9. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

NO CHANGES

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 and with RESPONSE TIMES as shown in Chapter 16 in the UFSAR.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

a. With an ESFAS Instrumentation or Interlock Trip Setpoint trip less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Value column of Table 3.3-4, adjust the Setpoint consistent with the Trip Setpoint value.

b. With an ESFAS Instrumentation or Interlock Trip Setpoint less conservative than the value shown in the Allowable Value column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status with its Setpoint adjusted consistent with the Trip Setpoint value.

c. With an ESFAS instrumentation channel or interlock inoperable, take the ACTION shown in Table 3.3-3.

NO CHANGES

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be demonstrated OPERABLE by performance of the ESFAS Instrumentation Surveillance Requirements specified in Table 4.3-2.

4.3.2.2 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be verified to be within the limit at least once per 18 months. Each verification shall include at least one train so that:

a. Each logic train is verified at least once per 36 months,

b. Each actuation train is verified at least once per 54 months*, and

c. One channel per function so that all channels are verified at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.

*If an ESFAS instrumentation channel is inoperable due to response times exceeding the required limits, perform an engineering evaluation to determine if the test failure is a result of degradation of the actuation relays. If degradation of the actuation relays is determined to be the cause, increase the ENGINEERED SAFETY FEATURES RESPONSE TIME surveillance frequency such that all trains are tested at least once per 36 months.

NO CHANGES

TABLE 3.3-3

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Safety Injection (Reactor Trip, Feedwater Isolation, Control Room Emergency Ventilation, Start Standby Diesel Generators, Reactor Containment Fan Coolers, and Essential Cooling Water).					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
c. Actuation Relays	3	2	3	1, 2, 3, 4	14
d. Containment Pressure--High-1	3	2	2	1, 2, 3 4	20
e. Pressurizer Pressure--Low	4	2	3	1, 2, 3#	20
f. Compensated Steam Line Pressure–Low	3/steam line	2/steam line any steam line	2/steam line in each steam line	1, 2, 3#	20

NO CHANGES

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
2. Containment Spray					
a. Manual Initiation	2	1 with 2 coincident switches	2	1, 2, 3, 4	19
b. Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
c. Actuation Relays	3	2	3	1, 2, 3,4	14
d. Containment Pressure—High -3	4	2	3	1, 2, 3	17
3. Containment Isolation					
a. Phase "A" Isolation					
1) Manual Initiation	2	1	2	1, 2, 3, 4	19
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
3) Actuation Relays	3	2	3	1, 2, 3, 4	14
4) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				

NO CHANGES

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
3. Containment Isolation (Continued)					
b. Containment Ventilation Isolation					
1) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	18
2) Actuation Relays***	3	2	3	1, 2, 3, 4	18
3) Safety Injection ***	See Item 1. above for all Safety Injection initiating functions and requirements.				
4) RCB Purge Radioactivity- High	2	1	2	1, 2, 3, 4, 5##, 6##	18
5) Containment Spray- Manual Initiation	See Item 2. above for Containment Spray manual initiating functions and requirements.				
6) Phase "A" Isolation- Manual Isolation	See Item 3.a. above for Phase "A" Isolation manual initiating functions and requirements.				
c. Phase "B" Isolation					
1) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
2) Actuation Relays	3	2	3	1, 2, 3, 4	14
3) Containment Pressure -- High-3	4	2	3	1, 2, 3	17
4) Containment Spray-- Manual Initiation	See Item 2. above for Containment Spray manual initiating functions and requirements.				
d. RCP Seal Injection Isolation					
1) Automatic Actuation Logic and Actuation Relays	1	1	1	1, 2, 3, 4	16

NO CHANGES

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
3.d. RCP Seal Injection Isolation (Continued)					
2) Charging Header Pressure - Low	1	1	1	1, 2, 3, 4	16
Coincident with Phase "A" Isolation	See item 3.a. above for Phase "A" Isolation initiating functions and requirements				
4. Steam Line Isolation					
a. Manual Initiation					
1) Individual	2/steam line	1/steam line	2/operating steam line	1, 2, 3	24
2) System	2	1	2	1, 2, 3	23
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22
c. Steam Line Pressure - Negative Rate--High	3/steam line	2/steam line any steam line	2/ steam line in each steam line	3###	20
d. Containment Pressure - High-2	3	2	2	1, 2, 3	20
e. Compensated Steam Line Pressure - Low	3/steam line	2/steam line any steam line	2/steam line in each steam line	1, 2, 3#	20

NO CHANGES

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	25
b. Steam Generator Water Level-- High-High (P-14)	4 / stm. gen.	2/ stm. gen. in any operating stm. gen.	3/stm. gen. in each operating stm. gen.	1, 2, 3	20
c. Deleted					
d. Deleted					
e. Safety Injection	See Item 1. for all Safety Injection initiating functions and requirements.				
f. T_{avg} - Low coincident with Reactor Trip (P-4) (Feedwater Isolation Only)	4 (1/loop)	2	3	1, 2, 3	20

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
6. Auxiliary Feedwater					
a. Manual Initiation	1/pump	1/pump	1/pump	1, 2, 3	26
b. Automatic Actuation Logic	2	1	2	1, 2, 3	22
c. Actuation Relays	3	2	3	1, 2, 3	22
d. Stm. Gen. Water Level -- Low-Low	4 stm. gen.	2 stm. gen. in any stm. gen.	3/stm. gen. in each stm. gen.	1, 2, 3	20
e. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
f. Loss of Power (Motor Driven Pumps Only)	See Item 8. below for all Loss of Power initiating functions and requirements.				
7. Automatic Switchover to Containment Sump****					
a. Automatic Actuation Logic and Actuation Relays	3-1/train	1/train	1/train	1, 2, 3, 4	19A
b. RWST Level -- Low-Low	3-1/train	1/train	1/train	1, 2, 3, 4	19A
Coincident With: Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
8. Loss of Power					
a. 4.16 kV ESF Bus Under-voltage-Loss of Voltage	4/bus	2/bus	3 /bus	1, 2, 3, 4	20Ā
b. 4.16 kV ESF Bus Under-voltage-Tolerable Degraded Voltage Coincident with SI	4/bus	2/bus	3/bus	1, 2, 3, 4	20Ā
c. 4. 16 kV ESF Bus Under-voltage - Sustained Degraded Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	20Ā
9. Engineered Safety Features					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	21
b. Low-Low T_{avg}, P-12	4	2	3	1, 2, 3	21
c. Reactor Trip, P-4	2	1	2	1, 2, 3	23

NO CHANGES

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
10. Control Room Ventilation					
a. Manual Initiation	3 (1/train)	2 (1/train)	3 (1/train)	All	27
b. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
c. Automatic Actuation Logic and Actuation Relays	3	2	3	All	27
d. Control Room Intake Air Radioactivity - High	2	1	2	All	28
e. Loss of Power	See Item 8. above for all Loss of Power initiating functions and requirements.				
11. FHB HVAC					
a. Manual Initiation	3 (1/train)	2 (1/train)	3 (1/train)	1, 2, 3, 4 or with irradiated fuel in spent pool	29, 30
b. Automatic Actuation Logic and Actuation Relays	3	2	3	1, 2, 3, 4 or with irradiated fuel in spent pool	29, 30
c. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
d. Spent Fuel Pool Exhaust Radioactivity - High	2	1	2	With irradiated fuel in spent fuel pool	30

TABLE 3.3-3 (Continued)
TABLE NOTATIONS

***Function is actuated by either actuation train A or actuation train B. Actuation train C is not used for this function.

****Automatic switchover to containment sump is accomplished for each train using the corresponding RWST level transmitter.

Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

During CORE ALTERATIONS or movement of irradiated fuel within containment.

Trip function automatically blocked above P-11 and may be blocked below P-11 when Low Compensated Steamline Pressure Protection is not blocked.

ACTION STATEMENTS

ACTION 14 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, **within 24 hours** restore the inoperable channel to OPERABLE status ~~within 24 hours~~, **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 15 - (Not Used)

ACTION 16 - With the Charging Header Pressure channel inoperable:

a) Place the Charging Header Pressure channel in the tripped condition within one hour and

b) Restore the Charging Header Pressure channel to operable status within 7 days or be in at least Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours.

ACTION 17 - a. With the number of OPERABLE channels one less than the Total Number of Channels, place the inoperable channel in the bypassed condition within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours. One additional channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1.

b. With the number of OPERABLE channels more than one less than the Total Number of channels, within 1 hour apply the requirements of Specification 3.13.1 or be in at least HOT SHUTDOWN within the following 6 hours.

ACTION 18 - a) With less than the Minimum Channels OPERABLE requirement for Automatic Actuation Logic or Actuation Relays, operation may continue provided the containment purge supply and exhaust valves are maintained closed.

b) MODE 1, 2, 3, 4, or 5##:

1. With one less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity-High, within 30 days restore the inoperable channel or maintain the containment purge supply and exhaust valves closed.

NOTE:

MODE 1, 2, 3, or 4: Supplementary containment purge supply and isolation valves may be open during the allowed outage time for up to 2 hours at a time for required purge operation provided the valves are under administrative control.

MODE 5##: Supplementary or Normal containment purge supply and isolation valves may be open during the allowed outage time for up to 6 hours at a time for required purge operation provided the valves are under administrative control.

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

2. With two less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity-High, operation may continue provided the containment purge supply and exhaust valves are maintained closed.

c) MODE 6##: With less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity - High, apply the requirements of Technical Specification 3.9.9 for an inoperable Containment Ventilation Isolation System.

NOTE:
With one less than the Minimum Channels Operable requirement for RCB Purge Radioactivity-High, Supplementary or Normal containment purge supply and isolation valves may be open for up to 6 hours at a time for required purge operation provided the valves are under administrative control.

ACTION 19 - a. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, **within 48 hours** restore the inoperable channel to OPERABLE status or **apply the requirements of Specification 3.13.1,** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 19A **With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 48 hours restore the inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.**

ACTION 20 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. For Functional Units with installed bypass test capability, the inoperable channel may be placed in bypass, and must be placed in the tripped condition within 72 hours.

Note: A channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1, provided no more than one channel is in bypass at any time.

b. For Functional Units with no installed bypass test capability,

1. The inoperable channel is placed in the tripped condition within 72 hours, and

2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.2.1.

ACTION 20A - a. With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

1. The inoperable channel is placed in the tripped condition within 72 hours, and

2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels.

b. With the number of OPERABLE channels more than one less than the Total Number of Channels, within 1 hour apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and be in at least HOT SHUTDOWN within the following 6 hours, and be in COLD SHUTDOWN within the subsequent 24 hours.

ACTION 21 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 22 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, ~~restore the inoperable channel to OPERABLE status~~, **within 24 hours restore the inoperable channel to OPERABLE status or apply the requirements of specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within one hour restore at least one inoperable channel to OPERABLE status or apply the requirements of specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.

ACTION 25 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, **within 24 hours** restore the inoperable channel to OPERABLE status ~~within 24 hours~~, or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours.

ACTION 26- With the number of channels OPERABLE less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feed Water Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 28 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 7 days initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

b. With the number of OPERABLE channels two less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode, or

immediately suspend CORE ALTERATIONS, movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, AND within 12 hours initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode. CORE ALTERATIONS, movement of irradiated fuel assemblies, and crane operations with loads over the spent fuel pool are permitted during operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

c. With required ACTION 28a. or 28b. not met in MODE 1, 2, 3, or 4, immediately suspend movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, AND be in MODE 3 in 6 hours and in MODE 5 in the following 30 hours.

d. With required ACTION 28a. or 28b. not met in MODE 5 or 6, immediately suspend CORE ALTERATIONS, movement of irradiated fuel assemblies, and crane operations with loads over the spent fuel pool.

ACTION 29 - For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.8.

ACTION 30- With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or

crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

NO CHANGES

INSTRUMENTATION

3/4.3.5 ATMOSPHERIC STEAM RELIEF VALVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION:

3.3.5.1 The atmospheric steam relief valve instrumentation shown in Table 3.3-14 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-14

ACTION: As shown in Table 3.3-14

SURVEILLANCE REQUIREMENTS:

4.3.5.1 Perform a CHANNEL CHECK on each atmospheric steam relief valve automatic actuation channel at least once per 12 hours.

4.3.5.2 Perform a CHANNEL CALIBRATION on each atmospheric steam relief valve automatic actuation channel at a nominal setpoint of 1225 psig ± 7 psi at least once every 18 months.

4.3.5.3 Perform an ANALOG CHANNEL OPERATIONAL TEST on each atmospheric steam relief valve automatic actuation channel at a nominal setpoint of 1225 psig ± 7 psi at least once every 18 months.

NO CHANGES

TABLE 3.3-14

ATMOSPHERIC STEAM RELIEF VALVE INSTRUMENTATION

FUNCTIONAL UNIT	REQUIRED NO. OF CHANNELS	APPLICABLE MODES	ACTION
Manual actuation control channels	4 (1 / valve)	1, 2, 3, 4*	1
Automatic actuation control channels	4 (1 / valve)	1, 2#	2

TABLE 3.3-14 (Continued)

TABLE NOTATIONS

* When steam generators are being used for decay heat removal.

\# Atmospheric steam relief valve(s) may be in manual operation and open, or in automatic operation, to maintain secondary side pressure at or below an indicated steam generator pressure of 1225 psig.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels less than the required number of channels, declare the affected valve(s) inoperable and apply Technical Specification 3.7.1.6.

ACTION 2 - a. With one less than the required number of OPERABLE channels, **within 7 days** restore the inoperable channel to OPERABLE status ~~within 7 days~~ **or apply the requirements of Specification 3.13.1**; or be in at least HOT STANDBY within the next 6 hours.

b. With two less than the required number of OPERABLE channels, **within 72 hours** restore at least three channels to OPERABLE status ~~within 72 hours~~ **or apply the requirements of Specification 3.13.1**; or be in at least HOT STANDBY within the next 6 hours.

c. With more than two less than the required number of OPERABLE channels, within 1 hour restore at least two channels to OPERABLE status or apply the requirements of Specification 3.13.1; or be in at least HOT STANDBY within the next 6 hours.

REACTOR COOLANT SYSTEM

OPERATING

LIMITING CONDITION FOR OPERATION

3.4.2.2 All pressurizer Code safety valves shall be OPERABLE with a lift setting[1] of 2485 psig ± 2%.[2]

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With one **or more** pressurizer Code safety valve**s** inoperable, **within 1 hour** either restore the inoperable valve(**s**) to OPERABLE status ~~within 1 hour~~ **or apply the requirements of Specification 3.13.1**, or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.2.2 No additional requirements other than those required by Specification 4.0.5.

[1]The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.

[2]The as left lift setting shall be within ±1% following valve testing.

REACTOR COOLANT SYSTEM

3/4.4.4 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.4 Both power-operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one or both PORV(s) inoperable, because of excessive seat leakage, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) with power maintained to the block valve(s); or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one PORV inoperable due to causes other than excessive seat leakage, within 1 hour either restore the PORV to OPERABLE status or close the associated block valve and remove power from the block valve; **within the following 72 hours** restore the PORV to OPERABLE status ~~within the following 72 hours~~ or **apply the requirements of Specification 3.13.1, or** be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With both PORVs inoperable due to causes other than excessive seat leakage, within 1 hour either restore at least one of the PORVs to OPERABLE status or close their associated block valves and remove power from the block valves and **apply the requirements of Specification 3.13.1, or** be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

d. With one block valve inoperable, within 1 hour restore the block valve to **OPERABLE** status or place its associated PORV in closed position; **within 72 hours** restore the block valve to **OPERABLE** status ~~within 72 hours~~ **or apply the requirements of Specification 3.13.1**; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

e. With both block valves inoperable, within 1 hour restore the block valves to **OPERABLE** status or place the associated PORVs in the closed position; restore at least one block valve to OPERABLE status within the next hour **or apply the requirements of Specification 3.13.1**; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

f. The provisions of Specification 3.0.4 are not applicable

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

LIMITING CONDITION FOR OPERATION

3.5.1 Each Safety Injection System accumulator shall be OPERABLE

APPLICABILITY: MODES 1 and 2
MODE 3 with pressurizer pressure > 1000 psig

ACTION:

a. With one **or more** accumulator**s** inoperable, except as a result of boron concentration outside the required limits, **within 1 hour** restore the inoperable accumulator**(s)** to OPERABLE status ~~within 24 hours~~ **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

b. With the boron concentration of one **or more** accumulator**s** outside the required limit, **within 1 hour** restore the boron concentration to within the required limits ~~within 72 hours~~ **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.1 Each accumulator shall be demonstrated OPERABLE:

a. At least once per 24 hours by:

1) Verifying the contained borated water volume is ≥ 8800 gallons and ≤ 9100 gallons and nitrogen cover-pressure is ≥ 590 psig and ≤ 670 psig, and

2) Verifying that each accumulator isolation valve is open.

b. At least once per 31 days and within 6 hours* after each solution volume increase of greater than or equal to 1% of tank volume that is not the result of addition from the RWST by verifying the boron concentration of the accumulator solution is ≥ 2700 ppm and ≤ 3000 ppm and

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is removed.

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* The 6 hr. SR is only required to be performed for affected accumulators

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{AVG} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

3.5.2 Three independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

a. One OPERABLE High Head Safety Injection pump,

b. One OPERABLE Low Head Safety Injection pump,

c. One OPERABLE RHR heat exchanger, and

d. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a Safety Injection signal and automatically transferring suction to the containment sump during the recirculation phase of operation through a High Head Safety Injection pump and into the Reactor Coolant System and through a Low Head Safety Injection pump and its respective RHR heat exchanger into the Reactor Coolant System.

APPLICABILITY: MODES 1, 2, and 3.*

ACTION:

a. With less than the above subsystems OPERABLE, but with at least two High Head Safety Injection pumps in an OPERABLE status, two Low Head Safety Injection pumps and associated RHR heat exchangers in an OPERABLE status, and sufficient flow paths to accommodate these OPERABLE Safety Injection pumps and RHR heat exchangers,** **within 7 days** restore the inoperable subsystem(s) to OPERABLE status ~~within 7 days~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With less than two of the required subsystems OPERABLE, within 1 hour restore at least one subsystem to OPERABLE status and apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be submitted within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

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* The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry into MODE 3 for the Safety Injection pumps declared inoperable pursuant to Specification 4.5.3.1.2 provided that the Safety Injection pumps are restored to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

** Verify required pumps, heat exchangers and flow paths OPERABLE every 48 hours.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.5 REFUELING WATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.5.5 The refueling water storage tank (RWST) shall be OPERABLE with:

a. A minimum contained borated water volume of 458,000 gallons, and

b. A boron concentration between 2800 ppm and 3000 ppm.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the RWST inoperable, **within 1 hour** restore the tank to OPERABLE status ~~within 1 hour~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.5.5 The RWST shall be demonstrated OPERABLE at least once per 7 days by:

a. Verifying the contained borated water volume in the tank, and

b. Verifying the boron concentration of the water.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.6 RESIDUAL HEAT REMOVAL (RHR) SYSTEM

LIMITING CONDITION FOR OPERATION

3.5.6 Three independent Residual Heat Removal (RHR) loops shall be OPERABLE with each loop comprised of:

a. One OPERABLE RHR pump,

b. One OPERABLE RHR heat exchanger, and

c. One OPERABLE flowpath capable of taking suction from its associated RCS hot leg and discharging to its associated RCS cold leg.*

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With one RHR loop inoperable, **within 7 days** restore the required loop to OPERABLE status ~~within 7 days~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With two RHR loops inoperable, **within 24** restore at least two RHR loops to OPERABLE status ~~within 24 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With three RHR loops inoperable, immediately initiate corrective action to restore at least one RHR loop to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.5.6.1 Each RHR loop shall be demonstrated OPERABLE on a STAGGERED TEST BASIS pursuant to the requirements of Specification 4.0.5.

4.5.6.2 At least once per 18 months by verifying automatic interlock action of the RHR system from the Reactor Coolant System to ensure that:

a. With a simulated or actual Reactor Coolant System pressure signal greater than or equal to 350 psig, the interlocks prevent the valves from being opened.

*Valves MOV-0060 A, B, and C and MOV-0061 A, B, and C may have power removed to support the FHAR (Fire Hazard Analysis Report) assumptions.

CONTAINMENT SYSTEMS

CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.7 Each containment purge supply and exhaust isolation valve shall be OPERABLE and:

a. Each 48-inch containment shutdown purge supply and exhaust isolation valve shall be closed and sealed closed, and

b. The 18-inch supplementary containment purge supply and exhaust isolation valves shall be closed to the maximum extent practicable but may be open for supplementary purge system operation for pressure control, for ALARA and respirable air quality considerations for personnel entry and for surveillance tests that require the valves to be open.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With a 48-inch containment purge supply and/or exhaust isolation valve open or not sealed closed, close and/or seal close that valve or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the 18-inch supplementary containment purge supply and/or exhaust isolation valve(s) open for reasons other than given in Specification 3.6.1.7.b. above, **within 4 hours** close the open 18-inch valve(s) or isolate the penetration(s) ~~within 4 hours~~, **or apply the requirements of Specification 3.13.1, or** ~~otherwise~~ be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

c. With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3, **within 24 hours** restore the inoperable valve(s) to OPERABLE status or isolate the penetrations so that the measured leakage rate does not exceed the limits of Specifications 4.6.1.7.2 and/or 4.6.1.7.3 ~~within 24 hours~~ **or apply the requirements of Specification 3.13.1;** otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Three independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one Containment Spray System inoperable, **within 7 days** restore the inoperable Spray System to OPERABLE status ~~within 7 days~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours~~; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be~~ **and** in COLD SHUTDOWN within the following ~~30~~ 30 hours.

b. **With more than one Containment Spray System inoperable, within 1 hour restore at least one inoperable Spray System to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.**

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying on a STAGGERED TEST BASIS, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 283 psid when tested pursuant to Specification 4.0.5;

c. At least once per 18 months during shutdown, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure High 3 test signal, and

2) Verifying that each spray pump starts automatically on a Containment Pressure High 3 test signal coincident with a sequencer start signal.

d. By verifying each spray nozzle is unobstructed following maintenance activities that could result in spray nozzle blockage.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.3 Three independent groups of Reactor Containment Fan Coolers (RCFC) shall be OPERABLE with a minimum of two units in two groups and one unit in the third group.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one group of the above required Reactor Containment Fan Coolers inoperable, **within 7 days** restore the inoperable group of RCFC to OPERABLE status ~~within 7 days~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. **With more than one group of the above required Reactor Containment Fan Coolers inoperable, within 1hour restore at least two groups of RCFC to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.**

SURVEILLANCE REQUIREMENTS

4.6.2.3 Each group of Reactor Containment Fan Coolers shall be demonstrated OPERABLE:

a. At least once per 92 days by:

1) Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes, and

2) Verifying a component cooling water flow rate of greater than or equal to 1800
gpm to each cooler.

a. At least once per 18 months by verifying that each fan group starts automatically on a Safety Injection test signal.

CONTAINMENT SYSTEMS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE with isolation times less than or equal to the required isolation times.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one or more of the isolation valve(s) inoperable, maintain at least one isolation barrier* OPERABLE in each affected penetration that is open and **within 24 hours**:

a. Restore the inoperable valve(s) to OPERABLE status ~~within 24 hours~~, or

b. Isolate each affected penetration ~~within 24 hours~~ by use of at least one deactivated automatic valve secured in the isolation position, or check valve with flow through the valve secured**, or

c. Isolate each affected penetration ~~within 24 hours~~ by use of at least one closed manual valve or blind flange, or

d. Apply the requirements of Specification 3.13.1

Or

Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

4.6.3.2 Each isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;

b. Verifying that on a Containment Ventilation Isolation test signal, each purge and exhaust valve actuates to its isolation position; and

c. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position.

d. Verifying that on a Phase "A" Isolation test signal, coincident with a low charging header pressure signal, that each seal injection valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

*An isolation barrier may either be a closed system (i.e., General Design Criteria 57 penetrations) or an isolation valve.

**A check valve may not be used to isolate an affected penetration flow path in which more than one isolation valve is inoperable or in which the isolation barrier is a closed system with a single isolation valve (i.e., General Design Criteria 57 penetration)

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Four independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. Three motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and

b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one motor-driven auxiliary feedwater pump inoperable, restore the pump to OPERABLE status within 28 days.

b. With the turbine-driven auxiliary feedwater pump inoperable, or with any two auxiliary feedwater pumps inoperable, **within 72 hours** restore the affected auxiliary feedwater pump(s) to OPERABLE status ~~within 72 hours~~ **or apply the requirements of Specification 3.13.1**. The provisions of Specification 3.0.4 are not applicable for entry into Mode 3 for the turbine-driven pump.

c. With three auxiliary feedwater pumps inoperable, or if the required action and associated allowed outage time for a) or b) is not met, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With four auxiliary feedwater pumps inoperable, immediately initiate action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible. LCO 3.0.3 and all other LCO actions requiring Mode changes are suspended until one of the four inoperable auxiliary feedwater pumps is restored to OPERABLE status.

PLANT SYSTEMS

AUXILIARY FEEDWATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The auxiliary feedwater storage tank (AFST) shall be OPERABLE with a contained water volume of at least 485,000 gallons of water.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the AFST inoperable, within 4 hours restore the AFST to OPERABLE status **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The AFST shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits.

PLANT SYSTEMS

MAIN STEAM LINE ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.5 Each main steam line isolation valve (MSIV) shall be OPERABLE.

APPLICABILITY: **MSIVs open in** MODES 1, 2, and 3

ACTION:

With ~~one~~ **a** MSIV inoperable ~~but open~~, ~~POWER OPERATION may continue provided~~ **within 1 hour close or restore** the inoperable valve ~~is restored~~ to OPERABLE status, **or apply the requirements of Specification 3.13.1** ~~within 4 hours~~; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

Note: Separate condition entry is permitted for each MSIV.

SURVEILLANCE REQUIREMENTS

4.7.1.5 Each MSIV shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to Specification 4.0.5. The provisions of Specification ~~4.0.4 are not applicable for entry into MODE 3.~~

PLANT SYSTEMS

ATMOSPHERIC STEAM RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 At least four atmospheric steam relief valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.*

ACTION:

a. With one less than the required atmospheric steam relief valves OPERABLE, **within 7 days** restore the required atmospheric steam relief valves to OPERABLE status ~~within 7 days;~~ **or apply the requirements of Specification 3.13.1 or** be in at least HOT STANDBY **within** the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.

b. With two **or more** less than the required atmospheric relief valves OPERABLE, **within 1 hour** restore at least three atmospheric relief valves to OPERABLE status within ~~72 hours~~ **or apply the requirements of Specification 3.13.1 or** be in at least HOT STANDBY **within** the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.

SURVEILLANCE REQUIREMENTS

4.7.1.6 Each atmospheric relief valve shall be demonstrated OPERABLE prior to startup following any COLD SHUTDOWN of 30 days or longer or following any refueling shutdown, by verifying that all valves will open and close fully by operation of automatic and manual controls.

*When steam generators are being used for decay heat removal.

PLANT SYSTEMS

MAIN FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.7 Each main feedwater isolation valve (MFIV) shall be OPERABLE.

APPLICABILITY: **MFIVs open in** MODES 1, 2, and 3.

ACTION:

~~MODES 1 and 2:~~ With **a** ~~one~~ MFIV inoperable ~~but open~~, **within 1 hour close or restore the inoperable valve to** ~~operation may continue provided the inoperable valve is restored to~~ OPERABLE status ~~within 4 hours~~ **or apply the requirements of Specification 3.13.1**; otherwise be in HOT STANDBY within the next 6 hours.

Note: Separate condition entry is permitted for each MFIV.

~~MODE 3: With one MFIV inoperable, subsequent operation in MODE 3 may proceed provided the isolation valve is maintained closed. Otherwise, be in HOT SHUTDOWN within the next 6 hours.~~

SURVEILLANCE REQUIREMENTS

4.7.1.7 Each MFIV shall be demonstrated OPERABLE by verifying full closure within 10 seconds when tested pursuant to Specification 4.0.5. The provisions of specification 4.0.4 are not applicable for entry into MODE 3.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least three independent component cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With only two component cooling water loops OPERABLE, **within 7 days** restore at least three loops to OPERABLE status ~~within 7 days~~ **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two or more component cooling water loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.3 At least three component cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve outside containment (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and

b. At least once per 18 months by verifying that:

1) Each automatic valve servicing safety-related equipment or isolating the non-nuclear safety portion of the system actuates to its correct position on a Safety Injection, Loss of Offsite Power, Containment Phase "B" Isolation, or Low Surge Tank test signal, as applicable (performed during shutdown);

2) Each Component Cooling Water System pump starts automatically on a Safety Injection or Loss of Offsite Power test signal (performed during shutdown); and

3) The surge tank level instrumentation which provides automatic isolation of portions of the system is demonstrated OPERABLE by performance of a CHANNEL CALIBRATION test.

c. By verifying that each valve inside containment (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position prior to entering MODE 4 following each COLD SHUTDOWN of greater than 72 hours if not performed within the previous 31 days.

PLANT SYSTEMS

3/4.7.4 ESSENTIAL COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least three independent essential cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With only two essential cooling water loops OPERABLE, **within 7 days** restore at least three loops to OPERABLE status ~~within 7 days~~ **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two or more essential cooling water loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4 At least three essential cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position;

b. At least once per 18 months during shutdown, by verifying that:

1) Each Essential Cooling Water automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal, and

2) Each Essential Cooling Water pump starts automatically on an actual or simulated signal.

PLANT SYSTEMS

3/4.7.14 ESSENTIAL CHILLED WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.14 At least three independent Essential Chilled Water System loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With only two Essential Chilled Water System loops OPERABLE, **within 7 days** restore at least three loops to OPERABLE status ~~within 7 days~~ **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. **With two or more Essential Chilled Water System loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours**

SURVEILLANCE REQUIREMENTS

4.7.14 The Essential Chilled Water System shall be demonstrated OPERABLE by:

a. Performance of surveillances as required by Specification 4.0.5, and

b. At least once per 18 months by demonstrating that the system starts automatically on a Safety Injection test signal.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE.

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System(1), and

b. Three separate and independent standby diesel generators, each with a separate fuel tank containing a minimum volume of 60,500 gallons of fuel, and an automatic load sequencer.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. **Within 72 hours** restore the offsite circuit to OPERABLE status ~~within 72 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator separately within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). **Within 14 days** restore the inoperable standby diesel generator to OPERABLE status ~~within 14 days~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.(12)

c. With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive

ACTION (Continued)

maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generator(s) by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generators; **within 12 hours** restore at least one of the inoperable sources to OPERABLE status ~~within 12 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ~~Restore at least two offsite circuits to OPERABLE status within 72 hours and three standby diesel generators to OPERABLE status within 14 days from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~(12)

d. With one standby diesel generator inoperable in addition to ACTION b. or c. above, ~~verify that~~ **within 24 hours apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generators as a source of emergency power are also OPERABLE, and~~

~~2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.~~

~~If these conditions are not satisfied within 24 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

e. With two of the above required offsite A.C. circuits inoperable, **within 24 hours** restore at least one of the inoperable offsite sources to OPERABLE status ~~within 24 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours. ~~With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

f. With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; **within 12 hours** restore at least one standby diesel generator to OPERABLE status ~~within 2 hours~~ and **apply the requirements of Specification 3.13.1, or** ~~at least two standby diesel generators to OPERABLE status within 24 hours or~~ be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ~~Restore at least three standby diesel generators to OPERABLE status within 14 days from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~(12)

ELECTRICAL POWER SYSTEMS

3/4.8.2 D.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 As a minimum, the following D.C. electrical sources shall be OPERABLE:

a. Channel I 125-volt Battery Bank E1A11(Unit 1), E2A11 (Unit 2) and one of its two associated chargers,

b. Channel II 125-volt Battery Bank E1D11 (Unit 1), E2D11 (Unit 2) and one of its two associated full capacity chargers,

c. Channel III 125-volt Battery Bank E1B11 (Unit 1), E2B11 (Unit 2) and one of its two associated full capacity chargers, and

d. Channel IV 125-volt Battery Bank E1C11 (Unit 1), E2C11 (Unit 2) and one of its two associated chargers.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With less than the required battery banks or battery chargers OPERABLE, within 1 hour restore the inoperable battery bank or battery charger, or apply the requirements of Specification 3.13.1, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~a. With one of the required battery banks inoperable, restore the inoperable battery bank to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

~~b. With no battery chargers for a channel OPERABLE, restore at least one battery charger to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each 125-volt battery bank and charger shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that:

1) The parameters in Table 4.8-2 meet the Category A limits, and

2) The total battery terminal voltage is greater than or equal to 129 volts on float charge.

ELECTRICAL POWER SYSTEMS

NO CHANGES

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner:

a. Train A A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # EIA (Unit 1), E2A (Unit 2), and
   2) 480-Volt ESF Busses # EIAI and EIA2 (Unit 1), E2AI and E2A2 (Unit 2) from respective load center transformers.

b. Train B A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # EIB (Unit 1), E2B (Unit 2), and
   2) 480-Volt ESF Busses # E1B1 and EIB2 (Unit 1), E2BI and E2B2 (Unit 2) from respective load center transformers.

c. Train C A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # EIC (Unit 1), E2C (Unit 2), and
   2) 480-Volt ESF Busses # EICI and EIC2 (Unit 1), E2CI and E2C2 (Unit 2) from respective load center transformers.

d. 120-Volt A.C. Vital Distribution Panels DP1201 and DP001 energized from their associated inverters connected to D.C. Bus # EIAII* (Unit 1), E2AII* (Unit 2), .

e. 120-Volt A.C. Vital Distribution Panel DP1202 energized from its associated inverter connected to D.C. Bus # EIDII* (Unit 1), E2DII* (Unit 2),

f. 120-Volt A.C. Vital Distribution Panel DP1203 energized from its associated inverter connected to D.C. Bus # EIBII* (Unit 1), E2BII* (Unit 2),

g. 120-Volt A. C. Vital Distribution Panels DP1204 and DP002 energized from their associated inverters connected to D. C. Bus #E1C11* (Unit 1), E2C11* (Unit 2),

h. 125-Volt D. C. Bus E1A11 (Unit 1) E2A11 (Unit 2) energized from Battery Bank E1A11 (Unit 1), E2A11 (Unit 2),

i. 125-Volt D. C. Bus E1D11 (Unit 1) E20D11 (Unit 2) energized from Battery Bank E1D11 (Unit 1), E2D11 (Unit 2),

j. 125-Volt D. C. Bus E1B11 (Unit 1) E2B11 (Unit 2) energized from Battery Bank E1B11 (Unit 1), E2B11 (Unit 2), and

k. 125-Volt D. C. Bus E1C11 (Unit 1) E2C11 (Unit 2) energized from Battery Bank E1C11 (Unit 1), E2C11 (Unit 2).

*The inverter(s) associated with one channel may be disconnected from its D.C. bus for up to 24 hours as necessary, for the purpose of performing an equalizing charge on its associated battery bank provided: (1) its vital distribution panels are energized, and (2) the vital distribution panels associated with the other battery banks are energized from their associated inverters and connected to their associated D.C. busses.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With ~~one of~~ the required trains of A.C. ESF busses not fully energized, **within 1 hour** reenergize the train ~~within 8 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one **or more** A.C. vital distribution panel**(s)** either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: **(1)** within **1** hour reenergize the A.C. distribution panel(s) **or apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; **and** (2) **within 24 hours** reenergize the A.C. vital distribution panel**(s)** from its associated inverter connected to its associated D.C. bus ~~within 24 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one **or more** D.C. bus**(es)** not energized from its associated battery bank, **within 1 hour** reenergize the D.C. bus**(es)** from its associated battery bank ~~within 2 hours~~ or **apply the requirements of Specification 3.13.1, or** be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.3.1 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

3/4.13 RISK MANAGEMENT

3/4.13.1 ALLOWED OUTAGE TIME DETERMINATIONS

LIMITING CONDITION FOR OPERATION

3.13.1 When referred to this specification, equipment that has been declared inoperable shall be evaluated for its impact on plant risk and allowed outage times determined accordingly.

APPLICABILITY: As required by the referencing specification(s)

ACTION:

Determine that the configuration is acceptable for extension of the allowed outage time beyond the allowed outage time for the referencing specification(s),

AND

Determine that the configuration is acceptable for continued operation beyond the allowed outage time for the referencing specification(s) whenever configuration changes occur that may affect plant risk,

AND

Restore required inoperable subsystem, component to OPERABLE status within the acceptable allowed outage time extension or 30 days, whichever is shorter.

Note: The 30-day limitation may be applied individually to each specification for which Specification 3.13.1 has been entered.

OR

Take the ACTION(s) required in the referencing specification(s) for required action or completion time not met

SURVEILLANCE REQUIREMENTS

4.13.1 As required by the referencing specification(s)

Bases for Specification 3.13.1

Specification 3.13.1 establishes provisions for performing a risk assessment to determine required actions and allowed outage times for specifically identified specifications for structures, systems, and components. Application of the risk assessment is consistent with the requirements of the Maintenance Rule, 10CFR50.65(a)(4), to assess and manage the increase in risk that may result from maintenance activities. The process to manage the risk assesses the rate of accumulation of risk in plant configurations and determines the allowed outage time (AOT) by calculating the time required to cross a Potentially Risk-significant Threshold (1.0E-05).

Application of the risk assessment to manage allowed outage time in different plant configurations is complemented by the station's programs to monitor performance indicators for long-term availability of risk-significant components. The requirement to achieve acceptable long-term performance indicators provides a significant disincentive to the potential to regularly extend baseline AOTs to the detriment of availability.

TS 3.13.1.a establishes the conditions for performance of the risk assessment. The LCOs subject to the Configuration Risk Management Program (CRMP) specifically reference TS 3.13.1. The baseline AOT or required completion time specified in the LCO may be used to apply the TS 3.13.1 to determine an alternate AOT and compensatory actions.

The requirement to continuously determine the acceptability of the plant means that once the subject LCO has exceeded the baseline AOT, the risk assessment must be reperformed as needed to determine the required action and time limits for any TS component that subsequently becomes inoperable. This requirement provides assurance that the configuration risk is adequately assessed. In a configuration with multiple LCOs not met, the risk assessment may determine that the AOT is shorter than what would be allowed by the baseline time in the affected LCOs. With more than one LCO not met, the baseline time for a subsequent inoperable TS component might also be a non-conservative time to perform a risk assessment to determine the appropriate required action and time. Consequently, the risk assessment process may also be applied to determine how much time is available to perform a risk assessment for subsequent inoperable TS components.

TS 3.13.1 is applied with the referencing specification and the ACTION required by the referencing specification must be taken if the configuration risk exceeds the Potentially Risk-significant Threshold. It recognizes that the plant is in an extended AOT that has a specified required action if the required action time is exceeded. In a configuration where the risk exceeds the Potentially Risk-significant Threshold, the calculated AOT has been exceeded and the action required at the expiration of LCO AOT must be taken. If more than one LCO is beyond its frontstop time, the LCO with the most limiting required action must be followed.

Application of TS 3.13.1 will provide for more than one train of a function to be inoperable. However, pre-planned entry into configurations where there is a complete loss of function (e.g., all three trains of ECW or all channels of an actuation logic) is not permitted.

TS 3.13.1 establishes a backstop AOT of 30 days. This backstop AOT prevents allowing a component with little or no risk significance from being inoperable indefinitely and resulting in a defacto change to the design or licensing basis of the plant. The note allows the 30-day backstop to be applied individually to specifications for which TS 3.13.1 is being used.

Implementation Examples

In addition to the CRMP, STPNOC also has a procedure that prescribes and governs compensatory actions to be implemented for the extended AOTs for the standby diesel generators and associated support systems and for the auxiliary feedwater system.

Implementation of the proposed risk informed Technical Specifications will introduce the ability to extend many more AOTs. As discussed in this application, the CRMP will be used to determine the AOT extension and to identify the need for any compensatory action. STPNOC plans to consolidate the requirements for identifying compensatory actions into a single procedure, the CRMP procedure. The CRMP generally will not prescribe the specific compensatory actions for each configuration. Those actions will be determined based on a case-by-case basis.

The CRMP procedure establishes the thresholds for compensatory action and is the implementing procedure for both the risk informed Technical Specifications and the Maintenance Rule (a)(4) risk assessment. Imposing a compensatory action for a given plant configuration will be independent of the source of the need for the action. For instance, if the 1.0E-06 threshold is crossed, even with all TS actions within their frontstop time, the CRMP will require the implementation of appropriate compensatory action.

The examples in this attachment depict how the risk-informed Technical Specifications and the CRMP would be applied. As discussed earlier, STPNOC's implementation of the risk-informed Technical Specifications will be based on the NEI Risk Managed Technical Specifications Guide.

A component can be functional for its purpose in the PRA but not meet the TS definition of OPERABLE. For the purpose of tracking the AOT, the TS ACTION is entered when it is determined that the affected component does not meet the TS definition of OPERABLE and may not be exited until either the component meets the TS definition of OPERABLE or the actions required by the TS have been performed.

Extended AOTs calculated in accordance with TS 3.13.1 may be based on the functionality of the affected component. For instance, a component may be declared inoperable if it is found not to meet seismic design requirements. However, the component is still functional and the AOT calculated for the component will account for the component being functional. The component would not be declared OPERABLE until the seismic design requirements were met. If the component was not restored to OPERABLE status within the AOT calculated in accordance with TS 3.13.1 or the 30-day backstop (whichever is shorter), the LCO for the component would not be met and the plant would have to take the ACTION required.

A component is considered functional if it meets the procedural requirements shown below.

> FUNCTIONAL: The structure, system, or component (SSC) is capable of performing its intended function for both normal and emergency operations. This definition applies to testing and maintenance activities in all MODES of operation.

1. Functional SSCs do not require automatic actuation or alignment if the function can be promptly restored either by an operator in the Control Room or by a dedicated operator

stationed locally for that purpose. Restoration actions must be contained in approved written instructions, must be uncomplicated and must not require diagnosis or repair. Credit for a dedicated local operator can be taken only if positioned at the proper location throughout the duration of the activity.

2. Functional SSCs may not always meet all Technical Specification, Licensing or Design-basis assumptions. (The Technical Specification ACTION will apply if the SSC is functional but not OPERABLE. If TS 3.13.1 is referenced by the affected TS, TS 3.13.1 may be applied to determine the appropriate AOT. The TS AOT limit will apply until the SSC is OPERABLE.)
3. Functional SSCs do not require attendant fire detection or suppression.
4. Performance of maintenance activities may involve alterations to SSCs which affect functionality. Examples of such alterations include:
   - Installation of terminal jumpers
   - Lifting of electrical leads
   - Placing of temporary lead shielding on pipes or equipment
   - Removal of barriers
   - Use of temporary blocks, bypasses, scaffolding or supports.
   - Removal of insulation.
5. An SSC should be considered functional if there is reasonable assurance that it can perform its intended risk function(s). If this evaluation is later proven incorrect, the determination of non-functional time will be corrected accordingly.
6. An SSC aligned to its failure mode configuration per a clearance order or work order may be considered functional.
7. An SSC with an inoperable snubber may be considered functional. Engineering assistance may be required to determine the functionality of an SSC with an inoperable snubber.
8. During maintenance, an SSC can be declared functional when it is capable of performing its intended risk function(s) following the completion of restoration activities (i.e. clearance released, system lineup completed, filling/venting completed and other operational prerequisites met). If maintenance on an SSC does not involve major component disassembly, then the SSC can be declared functional following or during maintenance when the maintenance has reached a point where the on-duty Senior Reactor Operators consider the SSC ready for service or post-maintenance testing. If subsequent post-maintenance testing fails, then the determination of non-functional time will be corrected accordingly.
9. SSCs are considered functional during surveillance testing provided one of the following conditions is met:
   - The SSC will respond to its actuation signal (e.g. a containment isolation valve is functional during a valve operability test).
   - The surveillance procedure specifies the recovery actions required to return the SSC to its required safety condition (e.g.,AFW inservice test provides guidance for the operator to close the test line isolation valve in the event of an AFW actuation).
   - The surveillance test places the SSC in the conservative safety state (e.g. the bistable is tripped).

Example 1: Routine Train A work week with emergent Train B condition

This example illustrates how the Technical Specifications would be applied for situation where a train of equipment is out of service for planned maintenance and a risk-significant component on a different train is found to be inoperable. Current TS for the condition below would require entry into TS 3.0.3 for the second inoperable HHSI train. This would subsequently require plant shutdown within a few hours unless STPNOC was granted enforcement discretion by the NRC.

Application of the proposed risk-informed TS would allow STP to determine the appropriate AOT for the condition where the second HHSI train was inoperable. The example demonstrates that there is adequate time for the plant to address the emergent condition without shutting down or requesting enforcement discretion.

Time (hh:mm)	**Event**	**Frontstop**	**Calculated AOT (time to reach 1E-05)**	**Risk (/hr)**	**Comment**
00:00	Begin Train A work week (SDG, ECW, CCW, HHSI)	HHSI (3.5.2.a): 7 days CCW (3.7..3.a): 7 days ECW (3.7.4.a): 7 days SDG (3.8.1.1.b): 14 days	NA, planned to remain within frontstop AOT.	5.9E-09	Routine planned maintenance
24:00	Train B HHSI found to be inoperable	3.5.2.b: 6 hours to apply TS 3.13.1	24 days	1.7E-08	Emergent condition where CTS would require TS 3.0.3 entry. RITS permits the station to address the condition with normal work controls.
36:00	Train B HHSI restored	Exit TS 3.5.2.b and TS 3.13.1 applicability. Back on the work week clock with 36 hours elapsed.	NA	5.9E-09	

Example 2: Emergent condition while in configuration where TS 3.13.1 is in use

This example illustrates how the TS would be applied in a situation where a frontstop AOT has been extended by use of TS 3.13.1 and there is a subsequent emergent condition involving an inoperable risk-significant component. The recalculated AOT of 27 days when the TDAFW pump is found to be inoperable also accounts for the days that the ECW pump has been out of service.

Time (hh:mm)	**Event**	**Frontstop**	**Calculated AOT (time to reach 1E-05**	**Risk (/hr)**	**Comment**
00:00	ECW pump replacement expected to last 10 days.	TS 3.7.4.a: 7 days (Also makes associated SDG inoperable)	1 train of ECW could be allowed OOS up to the 30-day backstop	4.5E-09	TS 3.13.1 requirements apply after 7 days. The risk is calculated from the time the ECW is taken out of service.
8 days	Turbine-driven AFW found to be inoperable	TS 3.7.1.2.b: 72 hours TS 3.8.1.1.d: 24 hours	27 days	1.5E-08	Regardless of the frontstop time for the TDAFW pump, TS 3.13.1 applies because the ECW has gone beyond its frontstop. TS 3.13.1 requires a determination of the acceptability of the configuration with the additional inoperable TDAFW. Application of the CRMP would determine the configuration is acceptable.
9 days	ECW pump is restored	TS 3.7.1.2.b: 72 hours less the 24 hours that have transpired.	> 30 days (backstop would apply)	1.5E-09	The condition that caused TS 3.13.1 to apply has been exited and there are no TS beyond their frontstop time. The frontstop AOT may be applied to the TDAFW.

Example 3: Same as Example 2, except that the emergent condition is restored first

Time (hh:mm)	Event	Frontstop	Calculated AOT (time to reach 1E-05)	Risk (/hr)	Comment
00:00	ECW pump replacement expected to last 10 days.	TS 3.7.4.a: 7 days	1 train of ECW could be allowed OOS up to the 30-day backstop	4.5E-09	TS 3.13.1 requirements apply after 7 days. The risk is calculated from the time the ECW is taken out of service
8 days	Turbine-driven AFW found to be inoperable	TS 3.7.1.2.b: 72 hours TS 3.8.1.1.d: 24 hours	27 days	1.5E-08	Regardless of the frontstop time for the TDAFW pump, TS 3.13.1 applies because the ECW has gone beyond its frontstop. TS 3.13.1 requires a determination of the acceptability of the configuration with the additional inoperable TDAFW. Application of the CRMP would determine the configuration is acceptable.
9 days	TD AFW restored	NA	> 30 days	4.5E-09	TS 3.13.1 still applies. TDAFW no longer contributes to risk calculation. A new completion time may be calculated.

PRA Quality

As stated in the cover letter, STPNOC proposes that this application be used as a pilot for Regulatory Guide (RG) 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities".

STPNOC has determined that preparing and submitting the information required by RG 1.200 will require a substantial effort. This submittal contains an outline with some preliminary information. The remainder of the information will be included in future submittals.

Description of the STP PRA

The STP PRA is a full-scope Level 1 / 2 PRA that incorporates internal events, inclusive of fires/floods, and external events (seismic, fire, flood). STP's PRA features a seismic PRA, flood PRA (including spatial interactions analysis), human reliability analysis, and detailed common cause modeling. The model is quantified using the RISKMAN® software code that has met station and industry software quality assurance requirements. The PRA is maintained and updated under a PRA configuration control program in accordance with station procedures. Periodic reviews and updates, if necessary, for plant changes (includes as a minimum performance data, procedures, and modifications) by qualified personnel with independent reviews and approvals.

STPNOC has used the PRA for risk-informed insights and applications since the mid-1980s. The NRC has previously reviewed the STP PRA in support of approving the following risk-informed licensing applications:

1. Amendment Nos. 59 & 47, dated February 17, 1994 (initial application made in 1990). The application extended the AOTs for 10 LCOs and the intervals for 3 surveillance tests.
2. Amendment Nos. 85 & 72, dated October 31, 1996. The application extended the AOT for the standby diesel generators and their associated support systems.
3. Amendment Nos. 125 & 113, dated September 26, 2000. The application relaxed LCO requirements for control room and fuel handling building HVAC.
4. Approval of Exemption to Special Treatment Requirements, dated August 3, 2001. The application relaxed regulatory requirements for various degrees of special treatment provisions for safety related components (Option 2 Pilot).
5. Amendment Nos. 135 & 124, dated January 10, 2002. The application extended the AOT for ECCS Accumulators consistent with WCAP-15049-A and relaxed accumulator surveillance requirements consistent with Westinghouse Improved Technical Specifications.
6. Amendment Nos. 143 & 131, dated September 17, 2002. The application allowed a one extension of integrated leak rate test to 15 years.
7. Amendment Nos. 146 & 134, dated December 31, 2002. The application extended the AOT for auxiliary feedwater.
8. Amendment Nos. 158 and 146 dated December 2, 2003 (AE-NOC-03001167). These amendments eliminate the turbine missile design basis.

9. Amendment No. 149 for STP Unit 2 dated December 30, 2003. This amendment allows a one-time extension of the AOT for standby diesel generator SDG 22 to 113 days.

In addition to the risk-informed licensing applications above, STPNOC has used the STP PRA to provide additional insight to other licenses amendments and to respond to NRC questions.

The following references are evaluations of the STP PRA that have been performed by the NRC and others:

1. NRC SER related to the STP Probabilistic Safety Assessment, dated January 21, 1992, documented favorable conclusions with regard to the STP PRA, including its treatment of fire (done to support the review for Amendment Nos. 59 & 47, above).

2. 2002 Peer Review

   In April 2002, STP's PRA underwent an industry peer review performed in accordance with NEI-00-02, "Industry PRA Peer Review Process." All technical elements within the scope of the peer review were graded as sufficient to support application requiring the capabilities of a grade 2 (e.g., risk ranking applications). Most of the elements were further graded as sufficient to support application requiring the capabilities defined for grade 3 (e.g., risk-informed applications supported by deterministic insights). The general assessment of the peer reviewers was that STP's PRA could effectively be used to support applications involving risk significance determinations supported by deterministic analyses once the items noted in the element summaries and Fact & Observations (F&O) sheets were addressed. Using STP's Corrective Action program as a tracking mechanism, with two major exceptions, all F&O items identified by the peer team have been completed and are incorporated as appropriate into the latest revision of the STP PRA (Revision 4). The STP PRA Revision 4 model is the basis for this application of Risk-Informed Technical Specifications. The two major exceptions which are not included in the current PRA are Level 2 model update and reevaluation of internal flood modeling. The Level 2 update is currently being performed with contractor assistance and will be complete by the end of 2004. The internal flood reevaluation is in progress and will be finished prior to the end of 2004. No issues have been identified from the flood reevaluation to date that affect the PRA.

RG 1.200 Required Information

The information described below will be provided to demonstrate that the parts of the STP PRA are of sufficient quality to support the analyses used in this application

- A description of the process for maintenance, update, and control of the PRA.

- Identification of changes to design or operational practices whose impacts have not been incorporated in the PRA model used to support the application, and either a justification of why this does not impact the results used or the results of a sensitivity study to demonstrate that the impact is not significant.

- Documentation that the parts of the PRA required to produce the results used in the decision are performed consistently with the standard or peer review process as endorsed in the appendices to this regulatory guide, or a discussion of the impact of not meeting the standard or the criteria of the peer review process on the results and either a justification of why this does not impact the results used or the results of a sensitivity study that demonstrate that the impact is not significant.

- A characterization of the assumptions and approximations that have a significant impact on the results used in the decision-making process. This characterization also includes the peer reviewers' assessment of those assumptions. These characterizations provide information that the NRC staff may find useful to support the assessment of whether the use of these assumptions and approximations is either appropriate for the application, or whether sensitivity studies performed to support the decision are appropriate.

- A discussion of the resolution of the peer review comments that are applicable to the parts of the PRA required for the application. This may take the form of: (1) a discussion of how the PRA model has been changed, (2) a justification of why the particular issue raised does not impact the results used, or (3) the results of a sensitivity study that demonstrate that the impact is not significant.