5/01/01R

STPEGS UFSAR 13.7

13.7 RISK-INFORMED SPECIAL TREATMENT REQUIREMENTS

13.7.1 Introduction

NRC regulations in 10 CFR Parts 21, 50, and 100 contain special treatment requirements that impose controls to ensure the quality of components that are safety-related, important to safety, or otherwise come within the scope of the regulations. These special treatment requirements go beyond normal commercial and industrial practices, and include quality assurance (QA) requirements, qualification requirements, inspection and testing requirements, and Maintenance Rule requirements. STP has been granted an exemption from the special treatment requirements. Table 13.7-1 identifies the regulations from which an exemption was granted and the scope of the exemption. This exemption only pertains to special treatment requirements; it does not change the requirements of 10 CFR Parts 50 and 100 that specify design or functional requirements for SSCs; i.e., the requirements that specify the safety functions to be performed by a system or component (including design features to prevent adverse impacts upon the safety function of one SSC due to the failure of another SSC). Also it does not change any design or functional requirements in the other sections of the STP UFSAR or requirements of the STP Technical Specifications.

STP has a risk-informed process for categorizing the safety/risk significance of components. This process is described in Section 13.7.2. Components with no or low safety significance have been exempted from the scope of most of the NRC regulations that impose special treatment requirements, and instead are subject to normal industrial and commercial practices. Additionally, non-safety-related components (and, under certain circumstances, safety-related components) with medium or high safety significance are evaluated for enhanced treatment. Components retain their original regulatory requirements unless they have been categorized using the process described below. The treatment for the various categories of components is described in Section 13.7.3. As part of this process, STP also performs continuing evaluations and assessments, which are described in Section 13.7.4. Finally, STP applies quality assurance to this process, and controls changes to the process, as described in Section 13.7.5.

13.7.2 Component Categorization Process

13.7.2.1 Overview of Categorization Process. The process utilized by STP in categorizing components consists of the following major tasks:

1. Identification of functions performed by the subject plant system.
2. Determination of the risk significance of each system function.
3. Identification of the system function(s) supported by that component.

4. Identification of a risk categorization of the component based on probabilistic risk assessment (PRA) insights (where the component is modeled)
5. Development of a risk categorization of the component based on deterministic insights.
6. Designation of the overall categorization of the component, based upon the higher of the PRA categorization and the deterministic categorization.
7. Identification of critical attributes for components determined to be safety/risk significant.

The processes for determining the PRA risk categorization and the deterministic risk categorization of a component are described in more detail in Sections 13.7.2.3 and 13.7.2.4. Additionally, the process for categorizing the pressure boundary function of ASME components is described in Section 13.7.2.5.

Based upon these processes, a component is placed into one of four categories: 1) high safety/risk significant (HSS), 2) medium safety/risk significant (MSS), 3) low safety/risk significant (LSS), and 4) non-risk significant (NRS). The terms HSS, MSS, and LSS are synonymous with the risk categorization terms of High, Medium, and Low, respectively. This categorization process does not, in and of itself, affect the other classifications of the component (e.g., safety, seismic, ASME classification).

The process is implemented by individuals experienced in various facets of nuclear plant operation. This integrated decision-making process is described in more detail in Section 13.7.2.2.

13.7.2.2 <u>Comprehensive Risk Management Process</u>. The integrated decision-making process used by STP is controlled by procedure. This process incorporates the use of experienced individuals who apply risk insights and judgement to categorize components in accordance with the process described in this Section.

The designated individuals have expertise in the areas of risk assessment, operations, maintenance, engineering, quality assurance, and licensing, including at least three individuals with a minimum of five years experience at STP or similar nuclear plants, and at least one individual who has worked on the modeling and updating of the PRA for STP or similar plants for a minimum of three years.

Procedures control the identification of and processes used by the designated individuals. Procedures also identify training requirements for the designated individuals, including training on probabilistic risk assessment, risk ranking, and the graded quality assurance process. Finally, the procedures specify the requirements for a quorum, meeting frequencies, the decision-making process for determining the categorization of components, the process for resolving differing opinions, and periodic reviews of the appropriateness of the programmatic control and oversight of categorized components.

13.7.2.3 <u>PRA Risk Categorization Process</u>. A component's risk categorization is initially based upon its impact on the results of the PRA. STP's PRA calculates both core damage frequency (CDF) and containment response to a core damaging event, including large early release frequency

(LERF). The PRA models internal initiating events at full power, and also accounts for the risk associated with external events.

The PRA configuration control program incorporates a feedback process to update the PRA model. The updates are segregated into two categories:

- The plant operating update incorporates plant design changes and procedure changes that affect PRA modeled components, initiating event frequencies, and changes in SSC unavailability that affect the PRA model. These changes will be incorporated into the model on a period not to exceed 36 months.

- The comprehensive data update incorporates changes to plant-specific failure rate distributions and human reliability, and any other database distribution updates (examples would include equipment failure rates, recovery actions, and operator actions). This second category will be updated on a period not to exceed 60 months.

The PRA model may be updated on a more frequent basis.

Only components that are modeled in the PRA are given an initial risk categorization. The PRA risk categorization of a component is based upon its Fussell-Vessely (FV) importance, which is the fraction of the CDF and LERF to which failure of the component contributes, and its risk achievement worth (RAW), which is the factor by which the CDF and LERF would increase if it were assumed that the component is guaranteed to fail. Specifically, PRA risk categorization is based upon the following:

PRA Ranking	**Criteria**
High	RAW = 100.0 or FV = 0.01 or FV = 0.005 and RAW = 2.0
Medium (Further Evaluation is Required)	FV < 0.005 and 100.0 > RAW = 10.0
Medium	FV = 0.005 and RAW < 2.0 or FV < 0.005 and 10.0 > RAW = 2.0
Low	FV < 0.005 and RAW < 2.0

A sensitivity study is performed as part of the periodic updates to the PRA to determine the cumulative impact on CDF and LERF from postulating a factor of 10 increase in the failure rates for all modeled LSS components and non-categorized low ranking PRA components. The increases in CDF and LERF are determined to be acceptable using the guidelines for changes as outlined in Regulatory Guide 1.174.

To address defense-in-depth issues related to Late Containment Failures, a similar sensitivity analysis is performed as part of the periodic updates to the PRA. This study postulates an increase in component failure rates by a factor of 10 for all modeled LSS components and non-categorized low ranking PRA components. STP compares the results with the guidance for CDF and LERF in Regulatory Guide 1.174. This assures that the delta increases in Late Containment Failures are small and consistent with the intention of the Commission's Safety Goal Policy Statement.

13.7.2.4 Deterministic Categorization Process. Components are subject to a deterministic categorization process, regardless of whether they are also subject to the PRA risk categorization process. This deterministic categorization process can result in an increase, but not a decrease (from the PRA risk), in a component's categorization.

A component's deterministic categorization is directly attributable to the importance of the system function supported by the component. In cases, where a component supports more than one system function, the component is initially classified based on the highest deterministic categorization of the function supported. In categorizing the functions of a system, five critical questions regarding the function are considered, each of which is given a different weight. These questions and their weight are as follows:

QUESTION	WEIGHT
Is the function used to mitigate accidents or transients?	5
Is the function specifically called out in the Emergency Operating Procedures (EOPs) or Emergency Response Procedures (ERPs)?	5
Does the loss of the function directly fail another risk-significant system?	4
Is the loss of the function safety significant for shutdown or mode changes?	3
Does the loss of the function, in and of itself, directly cause an initiating event?	3

Based on the impact on safety if the function is unavailable and the frequency of loss of the function, each of the five questions is given a numerical answer ranging from 0 to 5. This grading scale is as follows:

"0" - Negative response

"1" - Positive response having an insignificant impact and/or occurring very rarely

“2” - Positive response having a minor impact and/or occurring infrequently

“3” - Positive response having a low impact and/or occurring occasionally

“4” - Positive response having a medium impact and/or occurring regularly

“5” - Positive response having a high impact and/or occurring frequently

The definitions for the terms used in this grading scale are as follows:

Frequency Definitions -

- Occurring Frequently - continuously or always demanded
- Occurring Regularly - demanded > 5 times per year
- Occurring Occasionally - demanded 1-2 times per cycle
- Occurring Infrequently - demanded < once per cycle
- Occurring Very Rarely - demanded once per lifetime

Impact Definitions -

- High Impact - a system function is lost which likely could result in core damage and/or may have a negative impact on the health and safety of the public

- Medium Impact - a system function is lost which may, but is not likely to, result in core damage and/or is unlikely to have a negative impact on the health and safety of the public

- Low Impact - a system function is significantly degraded, but no core damage and/or negative impact on the health and safety of the public is expected

- Minor Impact - a system function has been moderately degraded, but does not result in core damage or negative impact on the health and safety of the public

- Insignificant Impact - a system function has been challenged, but does not result in core damage or negative impact on the health and safety of the public

Although some of these definitions are quantitative, both of these sets of definitions are applied based on collective judgment and experience.

The numerical values, after weighting, are summed; the maximum possible value is 100. Based on the sum, functions are categorized as follows:

SCORE RANGE	CATEGORY
0 - 20	NRS
21 - 40	LSS
41 - 70	MSS
71 - 100	HSS

A function with a low categorization due to a low sum can receive a higher deterministic categorization if any one of its five questions received a high numerical answer. Specifically, a weighted score of 25 on any one question results in an HSS categorization; a weighted score of 15-20 on any one question results in a minimum categorization of MSS; and a weighted score of 9-12 on any one question results in a minimum categorization of LSS. This is done to ensure that a function with a significant risk in one area does not have that risk contribution masked because of its low risk in other areas.

In general, a component is given the same categorization as the highest categorized system function that the component supports. However, a component may be ranked lower than the associated system function based upon diverse and/or multiple independent means available to satisfy the system function.

General notes may be used to document component risk justification for similar component types that are treated the same from system to system. Components covered by a general note are evaluated to ensure proper applicability of the note and appropriateness of the risk categorization. The use of general notes is an administrative tool that allows for increased efficiency in the documentation of justifications of large numbers of similar components. General notes are not used for categorizing system functions.

13.7.2.5 Categorization of the Pressure Boundary Function of ASME Components

In addition to the results of the categorization process discussed in Sections 13.7.2.3 and 13.7.2.4 above, STP considers other information in categorizing the pressure boundary function of ASME components. Specifically, for ASME Class 1 and 2 components, STP has established a risk ranking process in conjunction with its relief requests for risk-informed inservice inspection (RI-ISI) under NRC Regulatory Guide 1.178, "An Approach for Plant-Specific Risk-Informed Decisionmaking: Inservice Inspection of Piping." For ASME Class 3 components, STP will follow the RI-ISI methodology for risk ranking. STP will apply this methodology to Class 3 systems or portions of systems for which the exemption from 10CFR 50.55a(g) is desired.

The RI-ISI methodology for risk ranking applies only to piping. STP assigns other components the same pressure boundary risk rank as the associated section of piping, or performs a technical evaluation that supports a lower pressure boundary risk rank based on such factors as differences in design features and/or degradation mechanisms that are less severe for these components than for the associated piping.

For determining the final pressure boundary category of ASME components for purposes of the exemption from 10 CFR 50.55a(g), STP uses the higher of the RI-ISI risk ranking or the categorization of the pressure boundary function determined by the process discussed in Section 13.7.2.4. Supports are assigned the same category as the final pressure boundary category of the associated component.

In order to provide additional assurance, STP performs periodic tests, up to and including tests equivalent to ASME Section XI tests, to ensure that the pressure boundary of LSS and NRS components is sufficiently maintained.

13.7.2.6 Defense-in-Depth and Safety Margins. For the following reasons, the exemption and the categorization process maintain defense in depth and sufficient safety margins:

- Design and functional requirements of systems will not be changed by this exemption.
- No existing plant barriers are removed or altered.
- Design provisions for redundancy, diversity, and independence are maintained.
- The plant's response to transients or other initiators is not affected.
- Preventive or mitigative capability of components is preserved.
- There is no change in any of the safety analyses in the UFSAR.
- Existing safety-related LSS and NRS components will not be replaced, absent good cause (e.g., obsolescence or failure). Since the existing safety-related LSS and NRS components were designed, procured, manufactured, and installed in accordance with the existing special treatment requirements, these components have inherent design margins to perform their intended functions that will not be adversely affected by this exemption.
- The treatment processes described in Section 13.7.3 provide an appropriate and acceptable level of confidence that safety-related LSS and NRS components will be able to perform their intended functions.
- The corrective action program is applied to safety-related LSS and NRS components. This program provides reasonable confidence that deficiencies involving safety-related LSS and NRS components will be identified and corrected, and necessary action is taken to ensure acceptable performance levels are maintained.

13.7.3 Treatment for Component Categories

13.7.3.1 Description of Treatment for Component Categories. The following treatment is provided for the various component categories:

- Safety-Related HSS and MSS Components - The purpose of treatment applied to safety-related HSS and MSS SSCs is to maintain compliance with NRC regulations and the ability of these SSCs to perform risk-significant functions consistent with the categorization process. These components continue to receive the treatment required by NRC regulations and STP's associated implementing programs.

Some safety-related components may be called upon to perform functions that are beyond the design basis or perform safety-related functions under conditions that are beyond the design basis. STP's PRA does not take credit for such functions unless there is a basis for confidence that the component will be able to perform the functions (e.g., demonstrated ability of the component to perform the functions under the specified conditions). If STP takes credit for such functions beyond that described above, STP would use the process described in Section 13.7.3.2 to evaluate these risk-significant functions that are not being treated under STP's current programs.

- Non-Safety-Related HSS and MSS Components - The purpose of treatment applied to non-safety-related HSS and MSS SSCs is to maintain their ability to perform risk-significant functions consistent with the categorization process. These components will continue to receive any existing special treatment required by NRC regulations and STP's associated implementing programs. Additionally, the risk-significant functions of these components will receive consideration for enhanced treatment. This consideration is described in Section 13.7.3.2.

- Safety-Related LSS and NRS Components - These components receive STP's normal commercial and industrial practices. These practices are described in Section 13.7.3.3.

- Non-Safety-Related LSS and NRS Components - The treatment of these components is not subject to regulatory control.

- Uncategorized Components - Until a component is categorized, it continues to receive the special treatment required by NRC regulations and STP's associated implementing programs, as applicable.

13.7.3.2 Enhanced Treatment for HSS and MSS Components. Non-safety-related HSS and MSS components may perform risk-significant functions that are not addressed by the special treatment requirements in NRC regulations or STP's current treatment programs.

When a non-safety-related component is categorized as HSS or MSS, STP documents the condition under the corrective action program and determines whether enhanced treatment is warranted to enhance the reliability and availability of the function. In particular, STP evaluates the treatment applied to the component to ensure that the existing controls are sufficient to maintain the reliability and availability of the component in a manner that is consistent with its categorization. This process evaluates the reliability of the component, the adequacy of the existing controls, and the need for any changes. If changes are needed, additional controls are applied to the component. In addition, the component is placed under the Maintenance Rule monitoring program, if not already scoped in the program (i.e., failures of the component are evaluated and Maintenance Rule Functional Failures

(MRFF) involving the component are counted against the performance criteria at the plant/system/train level, as applicable). Additionally, as provided in the approved Graded Quality Assurance (GQA) program, non-safety-related HSS and MSS components are subject to the TARGETED QA program. These controls will be specifically 'targeted' to the critical attributes that resulted in the component being categorized as HSS or MSS. Components under these controls will remain non-safety-related, but the enhanced treatments will be appropriately applied to give additional confidence that the component will be able to perform its HSS/MSS function when demanded.

These identified processes provide reasonable confidence that HSS and MSS components will be able to perform their risk significant functions. The validation of functionality of HSS and MSS SSCs (safety-related SSCs for which existing special treatment does not provide the applicable level of confidence and non-safety-related SSCs) will consist of a documented technical evaluation under the corrective action program to determine what enhanced treatment, if any, is warranted for these SSCs to provide reasonable confidence that the applicable risk significant functions will be satisfied. The performance of these SSCs will be monitored as described in Section 13.7.4 to provide reasonable confidence that their ongoing capability to perform their risk significant functions. The design control process will evaluate facility changes affecting the risk-significant functions of these SSCs.

13.7.3.3 Normal Commercial and Industrial Practices for Safety-Related LSS and NRS Components. A description of STP's commercial practices is provided below. The purpose of applying these practices to safety-related LSS and NRS SSCs is to provide STP with reasonable confidence that these SSCs will maintain their functionality under design-basis conditions.

In lieu of any of these commercial practices, the associated special treatment requirements of NRC regulations may be applied to safety-related LSS and NRS components.

13.7.3.3.1 Design Control Process. The Station's Design Control Program is used for safety-related SSCs, including safety-related LSS and NRS SSCs. The Design Control Program complies with 10 CFR Part 50, Appendix B, and is described in the Operations Quality Assurance Plan (OQAP). Changes may be made in the design (including the design basis) of safety-related LSS and NRS components. Such changes will be controlled by following the design control process satisfying 10 CFR Part 50, Appendix B, and other regulatory requirements that may be applicable, such as 10 CFR 50.59.

13.7.3.3.2 Procurement Process. The purpose of the procurement process for safety-related LSS and NRS SSCs is to procure replacement SSCs that satisfy the design inputs and assumptions to support STP's determination that these SSCs will be capable of performing their safety-related functions under design-basis conditions. Technical requirements (including applicable design basis environmental and seismic conditions) for items to be procured include the design inputs and assumptions for the item. As described below, one or more of the following methods will provide a sufficient basis to determine that the procured item can perform its safety-related function under design basis conditions, including applicable design basis environmental (temperature and pressure, humidity, chemical effects, radiation, aging, submergence, and synergistic effects) and seismic (earthquake motion, as described in the design bases, including seismic inputs and design load combinations) conditions:

- Vendor Documentation - Vendor documentation could be used when the performance characteristics for the item, as specified in vendor documentation (e.g., catalog information, certificate of conformance), satisfy the SSC's design requirements. If the vendor documentation does not contain this level of detail, then the design requirements could be provided in the procurement specifications. The vendor's acceptance of the stated design specifications provides sufficient confidence that the replacement safety-related LSS or NRS SSC would be capable of performing its safety-related functions under design basis conditions.

- Equivalency Evaluation - An equivalency evaluation could be used when it is sufficient to determine that the procured item is equivalent to the item being replaced (e.g., a like-for-like replacement).

- Engineering Evaluation - For minor differences, an engineering evaluation could be performed to compare the differences between the procured item and the design requirements of the item being replaced and determines that differences in areas such as material, size, shape, stressors, aging mechanisms, and functional capabilities would not adversely affect the ability to perform the safety-related functions of the SSC under design basis conditions.

- Engineering Analysis - In cases involving substantial differences between the procured item and the design requirements of the item being replaced, an engineering analysis could be performed to determine that the procured item can perform its safety-related function under design basis conditions. The engineering analysis would be based on one or more engineering methods that include, as necessary, calculations, analyses and evaluations by multiple disciplines, test data, or operating experience to support functionality of the SSC over its expected life. Where the differences are determined to require a design change, STP will follow the design control process for safety-related SSCs.

- Testing - Testing under simulated design basis conditions could be performed on the component. Margins and documentation specified in NRC regulations would not be required in these tests, since the components are LSS/NRS and do not warrant this additional confidence.

Documentation of the implementation of these methods is maintained. Additionally, documentation is maintained to identify the preventive maintenance needed to preserve the capability of the procured item to perform its safety-related function under applicable design basis environmental and seismic conditions for its expected life.

In the procurement process, STP uses standards required by the State of Texas and national consensus commercial standards used at STP for the procurement of SSCs consistent with STP's normal commercial and industrial practices. STP does not need to itemize the standards in use at STP or to perform an evaluation of all national consensus standards.

The procurement program provides for the identification and implementation of special handling and storage requirements to ensure that the item is not damaged or degraded during shipment to the site or during storage on site. These handling and storage requirements consider available recommendations from the vendor. STP may use an alternative to these recommendations if there is a technical basis that supports the functionality of the safety-related LSS and NRS SSCs. The basis does not need to be documented.

At the time of receipt, the received item is inspected to ensure that the item was not damaged in the process of shipping, and that the item received is the item ordered.

13.7.3.3.3 Installation Process. The purpose of the installation process for safety-related LSS and NRS SSCs is to achieve proper installation and testing of replacement SSCs to support STP's determination that these SSCs will be capable of performing their safety-related functions under design-basis conditions.

In the installation process, STP uses standards required by the State of Texas and national consensus commercial standards used at STP for the installation of SSCs consistent with STP's normal commercial and industrial practices. STP does not need to itemize the standards in use at STP or to perform an evaluation of all national consensus standards.

Post-installation testing will be performed to the extent necessary to provide STP with reasonable confidence that the installed SSC will perform its safety function. The test verifies that the SSC is operating within expected parameters and is functional. The testing may necessitate that the SSC be placed in service to validate the acceptance of its performance. Testing is not necessarily performed under design basis conditions.

13.7.3.3.4 Maintenance Process. The purpose of the maintenance process for safety-related LSS and NRS SSCs is to establish the scope, frequency, and detail of maintenance activities necessary to support STP's determination that these SSCs will remain capable of performing their safety-related functions under design-basis conditions. Preventive maintenance tasks are developed for active structures, systems, or components factoring in vendor recommendations. STP may use an alternative to these recommendations if there is a technical basis that supports the functionality of the safety-related LSS and NRS SSCs. For an SSC in service beyond its designed life, STP will have a technical basis to determine that the SSC will remain capable of performing its safety-related function(s). These bases do not need to be documented.

The frequency and scope of predictive maintenance actions are established and documented considering vendor recommendations, environmental operating conditions, safety significance, and operating performance history. STP may deviate from vendor recommendations where a technical basis supports the functionality of the safety-related LSS and NRS SSCs. Such deviations are not required to be documented.

When an SSC deficiency is identified, it is documented and tracked through the Corrective Action Program. The deficiency is evaluated to determine the corrective maintenance to be performed.

Following maintenance activities that affect the capability of a component to perform its safety-related function, post maintenance testing is performed to the extent necessary to provide reasonable confidence that the SSC is performing within expected parameters.

In the maintenance process, STP uses standards required by the State of Texas and national consensus commercial standards used at STP for the maintenance of SSCs consistent with STP's normal commercial and industrial practices. STP does not need to itemize the standards in use at STP or to perform an evaluation of all national consensus standards.

13.7.3.3.5 Inspection, Test, and Surveillance Process. The purpose of the inspection, test, and surveillance process for safety-related LSS and NRS SSCs is to obtain data or information that allows evaluation of operating characteristics to support STP's determination that these SSCs will remain capable of performing their safety-related functions under design-basis conditions. The Station's inspection and test process is primarily addressed and implemented through the Maintenance process. When measuring and test equipment is found to be in error or defective, a determination is made of the functionality of the safety-related SSCs that were checked using that equipment. As stated above, the Maintenance process addresses inspections and tests through corrective, preventive, and predictive maintenance activities. These activities factor in vendor recommendations into the selected approach. STP may use an alternative to these recommendations if there is a technical basis that supports the functionality of the safety-related LSS and NRS SSCs. The basis does not need to be documented.

In the inspection, test, and surveillance process, STP uses standards required by the State of Texas and national consensus commercial standards used at STP for the inspection and testing of SSCs consistent with STP's normal commercial and industrial practices. STP does not need to itemize the standards in use at STP or to perform an evaluation of all national consensus standards.

13.7.3.3.6 Corrective Action Program. The Station's Corrective Action Program is used for safety-related (LSS and NRS as well as HSS and MSS SSCs) applications. The Corrective Action Program complies with 10 CFR Part 50 Appendix B, and is described in the OQAP.

13.7.3.3.7 Management and Oversight Process. The purpose of the management and oversight process for safety-related LSS and NRS SSCs is to control the implementation and to assess the effectiveness of the commercial practices to support STP's determination that these SSCs will remain capable of performing their safety-related functions under design-basis conditions. The Station's management and oversight process is accomplished through approved procedures and guidelines.

Procedures provide for the qualification, training, and certification of personnel. STP considers vendor recommendations in the training, qualification, and certification of personnel. STP may use an alternative to these recommendations if there is a basis for continued effective training of personnel. The basis does not need to be documented.

For qualification, training, and certification of personnel, STP uses standards required by the State of Texas and national consensus commercial standards used at STP consistent with STP's normal commercial and industrial practices. STP does not need to itemize the standards in use at STP or to perform an evaluation of all national consensus standards.

Documentation, reviews, and record retention requirements for completed work activities are governed by Station procedures.

Planned changes to, or elimination of, commitments described in the UFSAR or other licensing bases documentation that address issues identified in NRC generic communications (e.g., generic letters or bulletins), NRC orders, notices of violation, etc. related to safety-related LSS and NRS SSCs will be evaluated in accordance with STP's commitment change process.

13.7.3.3.8 Configuration Control Process. The Station's configuration control process is controlled through approved procedures and policies. The design control process ensures that the configuration of the Station is properly reflected in design documents and drawings.

13.7.4 Continuing Evaluations and Assessments

13.7.4.1 Performance Monitoring. STP has performance monitoring processes that include the following:

- Maintenance Rule Program - Specific performance criteria are identified at the plant, system, or train level. Regardless of their risk categorization, components that affect MSS or HSS functions will be monitored and assessed in accordance with plant, system and/or train performance criteria.

- Corrective Action Program - Condition reports document degraded equipment performance or conditions, including conditions identified as a result of operator rounds, system engineer walk-downs, and corrective maintenance activities.

13.7.4.2 Feedback and Corrective Action. STP has feedback and corrective action processes to ensure that equipment performance changes are evaluated for impact on the component risk categorization, the application of special treatment, and other corrective actions. At least once per cycle, performance data is compiled for review, which is performed for each system that has been categorized in accordance with Section 13.7.2. Performance and reliability data are generally obtained from sources such as the Maintenance Rule Program and Operating Experience Review.

This process provides an appropriate level of assurance that any significant negative performance changes that are attributed to the relaxation of special treatment controls are addressed in a timely manner. Responsive actions may include the reinstatement of applicable controls up to and including the re-categorization of the component's risk significance, as appropriate.

13.7.4.3 Process for Assessing Aggregate Changes in Plant Risk. The designated individuals who implement the integrated decision-making process are responsible for assessing and approving the aggregate effect on plant risk for risk-informed applications.

The process used to access the aggregate change in plant risk associated with changes in special treatment for components is based on periodic updates to the station's PRA and the associated PRA risk ranking sensitivity studies.

13.7.5 Quality Assurance and Change Control for the Risk-Informed Process

13.7.5.1 Quality Assurance for the PRA Risk Categorization Process.

STP has a PRA configuration control program, which is structured to ensure that changes in plant design and equipment performance are reflected in the PRA as appropriate. The PRA configuration control process is controlled by procedures and guidelines that ensure proper control of changes to the models.

13.7.5.2 Regulatory Process for Controlling Changes. Changes affecting Section 13.7 will be controlled in accordance with the following provisions:

a. Changes to Section 13.7.2, "Component Categorization Process" may be made without prior NRC approval, unless the change would decrease the effectiveness of the process in identifying HSS and MSS components.

b. Changes to Section 13.7.3, "Treatment of Component Categories" may be made without prior NRC approval, unless the change would result in a reduction in the confidence of component functionality.

c. Changes to Section 13.7.4, "Continuing Evaluations and Assessments" may be made without prior NRC approval, unless the change would result in a decrease in effectiveness of the evaluations and assessments.

d. A report shall be submitted, as specified in 10 CFR 50.4, of changes made without prior NRC approval pursuant to these provisions. The report shall identify each change and describe the basis for the conclusion that the change does not involve a decrease in effectiveness or confidence as described above. The report shall be submitted within 60 days of the date of the change.

e. Changes to Sections 13.7.2, 13.7.3, and 13.7.4 that do not meet the criteria of Sections 13.7.5.2.a through c shall be submitted to the NRC for prior review and approval.

TABLE 13.7-1

EXEMPTIONS FROM SPECIAL TREATMENT REQUIREMENTS

Regulation	Scope of Exemption
10 CFR 21.3 – An exemption to exclude safety-related LSS and NRS components from the scope of the definition of “basic component.”	The procurement, dedication, and reporting requirements in Part 21 are not applied to safety-related LSS and NRS components.
10 CFR 50.34(b)(10) and (11) – An exemption to the extent that it incorporates seismic qualification requirements in Part 100.	Refer to request for exemption from Part 100.
10 CFR 50.49(b) – An exemption to exclude LSS and NRS components from the scope of electric equipment important to safety for the purposes of environmental qualification of electrical equipment.	• The qualification documentation and files specified in Section 50.49 are not applicable to LSS and NRS components. • LSS and NRS components are not required to be maintained in a qualified condition under Section 50.49. • LSS and NRS components may be replaced with components that are not qualified under Section 50.49. • LSS and NRS components, as applicable under Section 50.49, are designed to function in the applicable design basis environment. Section 13.7.3.3 identifies the design and procurement controls that are applied to LSS and NRS components to achieve this requirement.
10 CFR 50.55a(g) – An exemption from the requirements of ASME Section XI, for repair and replacement of ASME Class 2 and 3 safety-related LSS and NRS components, subject to the provisions identified in the scope of exemption.	ASME Class 2 and 3 safety-related LSS and NRS components may be repaired or replaced with components that meet one of the following alternatives. The term ‘item’ below includes repairs, replacements, and fabrication and installation welds categorized as LSS or NRS : • The repair or replacement item will meet the technical (but not the administrative) requirements of the ASME Section XI Code and of the ASME Construction Code, as incorporated in Section XI. • The repair or replacement item will meet the technical and administrative requirements of other nationally-recognized Codes, Standards, or Specifications suitable for the item. Section 13.7.3.3 identifies the quality, design and procurement controls that are applied to safety-related LSS and NRS components that are repaired or replaced to provide reasonable confidence that their functionality is maintained.
10 CFR 50.55a(f) – An exemption	Safety-related LSS and NRS components are not in the scope of

Regulation	Scope of Exemption
from meeting the requirements of ASME Section XI for testing of safety-related LSS and NRS components.	component-specific inservice testing requirements. Additionally, Section 13.7.3.3 identifies other controls that are applied to provide reasonable confidence that safety-related LSS and NRS component functionality is maintained.
10 CFR 50.55a(g) – An exemption from meeting the requirements of ASME Section XI for inservice inspection of safety-related LSS and NRS components, subject to the provisions in the Scope of Exemption.	Safety-related LSS and NRS components are not in the scope of inservice inspection requirements. Section 13.7.3.3 identifies controls that are applied to provide reasonable confidence that safety-related LSS and NRS component functionality is maintained.
10 CFR 50.55a(h) – An exemption to exclude safety-related LSS and NRS components from the scope of components required to meet sections 4.3 and 4.4 of IEEE 279.	Sections 4.3 and 4.4 of IEEE 279 do not apply to safety-related LSS and NRS components. The other requirements listed in IEEE 279, including functional and design requirements, are applicable. Additionally, Section 13.7.3.3 identifies other controls that are applied to provide reasonable confidence that safety-related LSS and NRS component functionality is maintained.
10 CFR 50.59(a)(1), (a)(2) and (b)(1) (pre-1999 version); 10 CFR 50.59(c)(1), (c)(2), and (d)(1) (2000 version) – An exemption from the requirement to perform a written evaluation of changes in special treatment requirements for LSS and NRS components. Also an exemption from the requirement to seek prior NRC approval for such changes to the extent that they fall within the listed criteria in 50.59.	STP is not required to perform 50.59 evaluations for changes in the special treatment requirements for LSS and NRS components, and is not required to seek prior NRC approval for those changes. The exemption is limited to changes in special treatment requirements for which the exemption has been granted.
10 CFR 50.65(b) – An exemption to exclude LSS and NRS components from the scope of SSCs covered by the Maintenance Rule (except for 10 CFR 50.65(a)(4)).	STP is required to monitor performance on a plant/system/train level, as applicable. Regardless of their risk categorization, components that affect MSS or HSS functions will be monitored and assessed in accordance with plant, system, and/or train performance criteria.
10 CFR Part 50 Appendix B, Introduction – An exemption to exclude safety-related LSS and NRS components from the scope of safety-related SSCs covered by Appendix B (except for Criterion III pertaining to Design Control and Criteria XV and XVI governing non-conformances and	• Safety-related LSS and NRS components are not required to satisfy the QA requirements in Appendix B, except for design control, control of nonconformances, and corrective action. • Section 13.7.3.3 identifies other controls that are applied to provide reasonable confidence that safety-related LSS and NRS component functionality is maintained.

Regulation	Scope of Exemption
corrective actions).	
10CFR Part 50, Appendix J, B.III – An exemption to exclude safety-related LSS and NRS components, subject to the additional limitations listed under Scope of Exemption, from the scope of components requiring local leak rate tests and containment isolation valve leak rate tests.	• Local leak rate tests of LSS containment isolation valves and other safety-related LSS or NRS components are not required. With respect to LSS containment isolation valves, this exemption only applies to valves that satisfy one or more of the following criteria: - The valve is not required to operate under accident conditions to prevent or mitigate core damage events. - The valve is normally closed and in a physically closed, water-filled system. - The valve is in a physically closed system whose piping pressure rating exceeds the containment design pressure rating and that is not connected to the reactor coolant pressure boundary. - The valve is in a closed system whose piping pressure rating exceeds the containment design pressure rating, and is connected to the reactor coolant pressure boundary. The process line between the containment isolation valve and the reactor coolant pressure boundary is non-nuclear safety. - The valve size is 1 inch NPS or less. - Cumulative limits for containment leakage are based upon the tested components, with the assumption that the exempted components contribute zero leakage. • Section 13.7.3.3 identifies controls that are applied to provide reasonable confidence that safety-related LSS and NRS component functionality is maintained.
10 CFR Part 100, Appendix A.VI(a)(1) and (2) – An exemption to exclude safety-related LSS and NRS components from the scope of SSCs covered by these sections, to the extent that these sections require testing and specific types of analyses to demonstrate that SSCs are designed to withstand the safe shutdown earthquake and operating basis earthquake.	• LSS and NRS components are not required to be maintained in a qualified condition under Part 100. • LSS and NRS components may be replaced with components that are not qualified under Part 100. • LSS and NRS components, as applicable under Part 100, are designed to withstand the effects of design basis seismic events without loss of capability to perform their safety function. Section 13.7.3.3 identifies the design and procurement controls that are applied to LSS and NRS components to achieve this requirement.