

NUCLEAR REGULATORY COMMISSION

Notice of Availability of

Technical Specification Improvement to Relocate Surveillance Frequencies to Licensee

Control – Risk-Informed Technical Specification Task Force (RITSTF) Initiative 5b,

Technical Specification Task Force - 425, Revision 3

[NRC-2008-0637]

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of Availability.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has prepared a model license amendment request (LAR), model safety evaluation (SE), and model no significant hazards consideration (NSHC) determination. These are related to changes to standard technical specifications (STS) for Technical Specification Task Force (TSTF) – 425, Revision 3, “Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b,” (Agencywide Documents Access Management System (ADAMS) Accession No. ML090850642). The purpose of these models is to permit the NRC to efficiently process amendments that propose to relocate technical specifications (TS) surveillance frequencies. Licensees of nuclear power reactors could then request amendments, confirming the applicability of the safety evaluation and NSHC determination to their reactors. Previously, on December 5, 2008, drafts of the model SE, model NSHC determination, and model LAR were published in the *Federal Register* for public comment (73 FR 74202-74210). Based on its evaluation of the public comments received in response to that notice, the NRC staff made appropriate changes to the models, and is including the final versions of the models in this notice. This notice also contains a description of each public comment and its disposition by the NRC staff. Based on its evaluation of the public comments, the NRC staff has decided to announce the availability of the model SE and

model NSHC determination to licensees for referencing in LARs to adopt TSTF-425, Rev 3. Licensees of nuclear power reactors proposing to adopt these changes should follow the guidance in the model LAR and confirm the applicability of the model SE and model NSHC determination to their reactors.

DATES: The NRC staff hereby announces that the attached model SE and model NSHC determination (which differ only slightly from the versions previously published) may be used in support of plant specific applications to adopt the relocation of TS Surveillance Requirements. The staff has also posted the model LAR (which also differs only slightly from the versions previously published) to assist licensees in applying for the proposed TS change. The NRC staff can most efficiently consider applications based upon the model application if the application is submitted within a year of this *Federal Register* Notice.

FOR FURTHER INFORMATION CONTACT: Michelle Honcharik, Mail Stop: O-12E1, Special Projects Branch, Division of Policy and Rulemaking, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone 301-415-1774.

SUPPLEMENTARY INFORMATION:

Background

This notice makes available for adoption by licensees a change to the STS that modifies surveillance frequencies. Licensees opting to apply for this change are responsible for reviewing the staff's evaluation, providing the applicable technical justifications, and providing any necessary plant-specific information. The NRC will process each amendment application responding to the notice of availability according to applicable NRC rules and procedures.

TSTF-425, Rev. 3 involves the relocation of most time-based surveillance frequencies to a licensee-controlled program, called the Surveillance Frequency Control Program (SFCP), and

adds the SFCP to the administrative controls section of TS. The SFCP does not include surveillances frequencies that are event driven, controlled by an existing program, or are condition-based.

Revision 3 of TSTF-425 addresses all four reactor vendor types. The owners groups participants proposed this change for incorporation into the STS. TSTF-425, Rev. 3 (ADAMS Accession No. ML090850642), can be viewed on the NRC's Web page at:

<http://www.nrc.gov/reading-rm/adams.html>.

Applicability

TSTF-425, Rev. 3, is applicable to all STS for nuclear power reactors and requires the application of the Nuclear Energy Institute (NEI) 04-10, Rev.1, "Risk-informed Technical Specifications Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies," (ADAMS Accession No. ML071360456). The NRC staff reviewed and approved NEI 04-10, Rev. 1, by letter dated September 19, 2007 (ADAMS Accession No. ML072570267). Each licensee applying for the changes proposed in TSTF-425 will need to include documentation regarding the probabilistic risk assessment [PRA] technical adequacy consistent with the guidance in Section 4.2 of Regulatory Guide (RG) 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment [PRA] Results for Risk-Informed Activities" (ADAMS Accession No. ML070240001). Applicants proposing to use PRA models for which NRC-endorsed standards do not exist must submit documentation that identifies characteristics of those models. Sections 1.2 and 1.3 of RG 1.200 provides guidance on the supporting information needed for new methods. Applicants must give supporting evidence for methods to be applied for assessing the risk contribution for those sources of risk not addressed by NRC endorsed PRA models.

The proposed change to adopt TSTF-425 does not prevent licensees from requesting an alternate approach or proposing changes other than those proposed in TSTF-425, Rev. 3. Significant deviations from the approach recommended in this notice, or inclusion of additional changes to the license, however, require additional review by the NRC staff. This may increase the time and resources needed for the review or result in staff rejection of the LAR. Licensees desiring significant deviations or additional changes should instead submit a license amendment request that does not claim to adopt TSTF-425, Rev 3.

Evaluation of Public Comments on the Model Safety Evaluation

The NRC staff evaluated the public comments received on the model SE, model NSHC determination, and model LAR published in the *Federal Register* on December 5, 2008 (73 FR 74202-74210). Fifteen comments were received from the pressurized and boiling water reactor owners groups, TSTF (ADAMS Accession No. ML090080162). The comments and NRC staff's disposition of each comment follows. It should be noted that the following comments were made to the *Federal Register* Notice for Comment which referenced TSTF-425, Revision 2 (ADAMS Accession No. ML080280275). TSTF-425, Revision 3 was submitted by the TSTF by letter dated March 18, 2009 (ADAMS Accession NO. ML090850642) to address NRC disposition of TSTF comment number 10.

1. (TSTF) Reference; model application (73 FR 74204). Comment: "The model application contains statements that are not consistent with a letter from a licensee to the NRC, and in many cases the model application is worded similar to the NRC-issued Safety Evaluation. For example, Section 2.1, paragraph 2, of the model application states, 'The licensee has submitted documentation which identifies the quality characteristics of those models, as described in RG 1.200 (ADAMS Accession No. ML070240001).' We recommend

that the model application be reviewed from the standpoint of a letter from a specific licensee to the NRC and modify the wording to be consistent with that task. For example, if Comment 2 is incorporated, the sentence above could be rewritten as discussed in Comment 6, below.”

Disposition: The NRC staff accepted the comment regarding consistency of a letter from a licensee to the NRC and incorporated the recommended change into the model application, where appropriate. Disposition of Comment Nos. 2 and 6 are discussed below.

2. (TSTF) Reference; model application (73 FR 74205). Comment: “We recommend that the licensee's documentation of PRA adequacy be a new Attachment 2 and the existing attachments be renumbered. This will allow standardization of the model amendment and allow reference to the attachment number in the Safety Evaluation.”

Disposition: The NRC staff accepted the comment and incorporated the recommended change into the model application as new “Attachment 2, Documentation of PRA Technical Adequacy.”

3. (TSTF) Reference; model application (73 FR 74205). Comment: “Attachment 3 of the model application includes the revised (clean) Technical Specification (TS) pages. Whether licensees are requested to include clean typed TS pages with license amendments varies among the NRC Project Managers. Given the number of pages affected by this amendment and the straightforward nature of the changes, this attachment should be marked as optional, allowing the licensee and the NRC Project Manager to decide whether clean TS pages should be submitted.”

Disposition: Essentially, the commenter objects to providing final requested change. When an applicant desires to amend its TS, the combination of § 50.36 and 50.90 require submission of the new, clean, unmarked TS and bases. An applicant could not reasonably decline to submit proposed TS and bases under the claim that the proposed pages were not “applicable” to its request. Thus, an application is likely incomplete if it fails to contain final clean TS and bases.

Regarding marked-up pages, applicants generally submit marked-up TS pages and bases. There is, however, no direct requirement for submission of the mark-ups. Should the Staff need the mark-ups for their amendment review, § 50.90's requirement that an LAR “fully describe[s] the changes desired” could be used to request a mark-up version. No changes were made as a result of this comment.

4. (TSTF) Reference; model application (73 FR 74205) “Attachment 5 of the model application includes the affected Bases pages. In the transmittal letter for TSTF-425, Revision 1, dated April 20, 2007, the TSTF stated, “In the CLIP model application for TSTF-425, we request that NRC reflect that appropriate plant-specific changes will be made to the Technical Specifications Bases by the licensees under the Technical Specification Bases Control Program and that, therefore, revised Bases pages need not be included. This will significantly reduce the size of the plant-specific license amendment requests submitted to adopt TSTF-425.”

“As further discussed in the TSTF's response to NRC's RAI #8 (Letter from TSTF to NRC dated January 17, 2008, ‘Response to NRC Request for Additional Information Regarding TSTF-425,’ Revision 1, ‘Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b,’ dated October 2, 2007), licensees have the option of retaining the existing

description of the Frequency in their Bases (as adoption of TSTF-425 does not alter any existing Frequencies) or of adopting the recommended Bases in TSTF-425. In either case, neither the existing Bases nor the revised Bases in TSTF-425 include any information material to the NRC's review. Therefore, we recommend that the model application be revised to not reference the inclusion of Bases changes. See also the related comment on the Safety Evaluation below.”

Disposition: For more than 50 years, since the regulation governing license amendment requests, 10 C.F.R. 50.90, has required that an applicant fully describes the changes desired, and also required the applicant to follow, as far as applicable, the form prescribed for the original operating license application. The NRC's regulation at 10 C.F.R. § 50.36 continues this philosophy of requiring applications to include technical specifications and bases. Thus, to meet the requirements of 10 C.F.R. § 50.90, the applicant will need to submit the applicable TSs and bases. An applicant who does otherwise is at risk of failing to meet the requirements in 10 C.F.R. § 50.90 of “fully describing the changes desired, and following as far as applicable, the form prescribed for original applications”. No changes were made to the *Federal Register* Notice (73 FR 74202-74210) as a result of this comment.

5. (TSTF) Reference; model application (73 FR 74204). “Section 2.1, ‘Applicability of the Published Safety Evaluation,’ first paragraph, states, ‘[LICENSEE] has reviewed the safety evaluation dated [DATE]. This review included a review of the NRC staff's evaluation, the supporting information provided to support TSTF- 425, Rev. 2, and the requirements specified in NEI 04-10, Rev. 1, (ADAMS Accession No. ML071360456).’ It is not clear what information is included in ‘the supporting information provided to support TSTF-425, Rev. 2.’ In order for licensees to provide complete and accurate information, a more specific description is needed.”

Disposition: The NRC staff accepted the comment and revised Section 2.1 to read as follows: “[LICENSEE] has reviewed the safety evaluation dated [DATE]. This review included a review of the NRC evaluation, TSTF-425, Rev. 2, and the requirements specified in NEI 04-10, Rev. 1 (ADAMS Accession No. ML071360456).” The statement regarding “The supporting information provided to support TSTF-425, Revision 2” was replaced by “TSTF-425, Revision 2” since the TSTF includes information which explains and supports the STS changes and must be considered by the licensee as part of the license amendment request to determine if the TSTF is applicable to the licensee’s facility.

6. (TSTF) “Section 2.1, ‘Applicability of the Published Safety Evaluation,’ contains two numbered paragraphs joined by an ‘and’ referring to documentation of PRA adequacy. These paragraphs do not provide sufficient guidance to a licensee on what should be submitted. Using the change in Comment 2, we recommend that these paragraphs be replaced with the following, ‘Attachment 2 includes documentation with regard to PRA technical adequacy consistent with the requirements of Regulatory Guide 1.200, Revision 1, Section 4.2, and describes any PRA models without NRC-endorsed standards, including documentation of the quality characteristics of those models in accordance with Regulatory Guide 1.200.’ Additional guidance, if available, such as preferred organization of the information, can be added to the model application in Attachment 2.”

Disposition: The NRC staff accepted the comment and revised Section 2.1, “Applicability of the Published Safety Evaluation”. The numbered paragraphs (1 and 2) of Section 2.1 are replaced to state the following: “Attachment 2 includes [LICENSEE] documentation with regard to PRA technical adequacy consistent with the requirements of Regulatory Guide 1.200, Revision 1 (ADAMS Accession No. ML070240001), Section 4.2, and

describes any PRA models without NRC-endorsed standards, including documentation of the quality characteristics of those models in accordance with Regulatory Guide 1.200.”

7. (TSTF) “We recommend Section 2.2, “Optional changes and variations,” be replaced with, ‘The proposed amendment is consistent with the TS changes described in TSTF-425, Rev. 2, but proposes to modify the plant-specific Surveillances, which may include more or less Surveillances than those modified in TSTF-425, Rev. 2, and those plant-specific Surveillances may have differing Surveillance numbers. The plant-specific changes are consistent with the NRC staff’s model safety evaluation dated [DATE], especially the scope exclusions in Section 1.0 of that model safety evaluation, as revised.’”

Disposition: Deviations or variations from that described in TSTF are recognized and addressed in Notice of Opportunity to Comment on Model SE on TS Improvement to Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b, TSTF - 425, Revision 2 as published in the *Federal Register* for public comment (73 FR 74203) which states: “The proposed change to adopt TSTF-425 does not prevent licensees from requesting an alternate approach or proposing changes other than those proposed in TSTF-425, Rev. 2. Significant deviations from the approach recommended in this notice, or inclusion of additional changes to the license, however, require additional review by the NRC staff. This may increase the time and resources needed for the review or result in staff rejection of the LAR. Licensees desiring significant deviations or additional changes should instead submit a license amendment request that does not claim to adopt TSTF-425, Rev 2.” No changes were made as a result of this comment.

8. (TSTF) The proposed regulatory commitment in Attachment 4 to implement NEI 04-10, Rev. 1, should be deleted. The TS Administrative Controls, ‘Surveillance Frequency

Control Program,' required to be adopted as part of the amendment, states, 'Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, 'Risk-Informed Method for Control of Surveillance Frequencies,' Revision 1.'

NRC Office Instruction LIC-105, 'Managing Regulatory Commitments Made by Licensees to the NRC,' states, 'Regulatory commitments are appropriate for matters in which the staff has significant interest but which do not warrant either legally binding requirements or inclusion in Updated Final Safety Analysis Reports (UFSARs) or programs subject to a formal regulatory change control mechanism.' As TSTF-425, Rev. 2, proposes to have a Technical Specification requirement to implement NEI 04-10, Rev. 1, which is a legally binding requirement, a regulatory commitment to implement NEI 04-10, Rev. 1, is unnecessary."

Disposition: The NRC staff accepted the comment and revised the Model Application by deleting the reference to and the "Attachment 4 Regulatory Commitments."

9. The "Proposed No Significant Hazards Consideration Determination" Criterion 3 discussion, should be revised as shown, "To evaluate a change in the relocated surveillance frequency, [LICENSEE] will perform a probabilistic risk evaluation using the guidance contained in NRC approved NEI 04-10, Rev. 1."

Disposition: The NRC staff accepted the comment and provided additional clarification with reference to the SFCP. As a clarification of the "Proposed No Significant Hazards Consideration" Criterion 3 (73 FR 74205) discussion the statement was revised as follows: "To evaluate a change in the relocated surveillance frequency, [LICENSEE] will perform a probabilistic risk evaluation using the guidance contained in NRC approved NEI 04-10, Rev. 1 in accordance with the TS SFCP."

10. (TSTF) "Section 1.0, 'Introduction,' states that all Surveillance Frequencies can be relocated except those meeting four conditions. The first three conditions are a restatement of the conditions described in TSTF-425, Rev. 2, Section 2.0, 'Proposed Change.' The fourth condition, 'Frequencies that are related to specific conditions (e.g., 'battery degradation, age, and capacity') or conditions for the performance of a surveillance requirement (e.g., 'drywell to suppression chamber differential pressure decrease'), does not appear in TSTF-425, Rev. 2, and is not consistent with the markups in TSTF-425, Rev. 2."

The TSTF's response to NRC's RAI #2 (Letter from TSTF to NRC dated January 17, 2008, 'Response to NRC Request for Additional Information Regarding TSTF-425, Revision 1,' 'Relocate Surveillance Frequencies to Licensee Control - RITSTF Initiative 5b, dated October 2, 2007'), addressed this issue. It states, 'The TSTF agrees that the specific conditions of battery degradation, age, and capacity are not within the scope of NEI 04-10. Surveillance 3.8.6.6 in NUREG-1430, -1431, -1432, -1433, and -1434 is revised to retain the conditions of battery degradation, age, and capacity, while relocating the Frequencies consistent with the NRC-approved Limerick lead plant submittal. The Limerick Surveillances, 4.8.2.1.e and 4.8.2.1.f, contain the same requirements as ISTS Surveillance 3.8.6.6. The 60 month Frequency is relocated to the SFCP. The 12 month and 24 month Frequencies associated with degraded batteries, or batteries exceeding 85 percent of their expected life based on available capacity are relocated to the SFCP, but the criteria related to battery degradation, age, and capacity are retained.'

Therefore, based on this response and the NRC's approval of the Limerick LAR, the Surveillance Frequencies related to specific conditions are not excluded from the scope of TSTF-425, Rev. 2.

Disposition: The NRC Request for Additional Information (RAI) Regarding TSTF-425, Revision 1, dated October 2, 2007 (ADAMS Accession No. ML072120630) states as follows: "In NUREG-1433 SR 3.8.6.6, and NUREG-1434 SR 3.8.6.6, TSTF-425 will relocate the 12-month and 24-month surveillance frequencies associated with degraded batteries, or batteries exceeding 85 percent of their expected life based on available capacity. This is inconsistent with the proposed changes to similar SRs in NUREG-1430, NUREG-1431, and NUREG-1432, which would only relocate the 60-month frequency associated with non-degraded batteries. The staff considers the specific conditions of battery degradation, age, and capacity as not within the scope of NEI 04-10. Provide a revision to TSTF-425 which retains, in NUREG-1433 and NUREG-1434, the SRs for degraded or old batteries." As the NRC staff indicated in the RAI and TSTF states in their response (ADAMS Accession No. ML090080162), "TSTF agrees that the specific conditions of battery degradation, age, and capacity are not within the scope of NEI 04-10." TSTF-425, Revision 2, requires the use of NEI 04-10, Revision 1, in accordance with the TS Surveillance Frequency Control Program. Therefore, Surveillance Frequencies related to specific conditions remain an exception to relocation under the SFCP. No changes were made as a result of this comment.

11. (TSTF) "Section 1.0, 'Introduction,' (Federal Register page 74205, first column) states, 'The TS Bases for each affected surveillance is revised to state that the frequency is set in accordance with the Surveillance Frequency Control Program. Various editorial changes may be made to the Bases as needed to facilitate the addition of the Bases changes. Some surveillance Bases do not contain a discussion of the frequency. In these cases, Bases

describing the current frequency were added to maintain consistency with the Bases for similar surveillances. These instances are noted in the markup along with the source of the text. The proposed changes to the administrative controls of TS to incorporate the SFCP includes a specific reference to NEI 04-10, 'Risk-Informed Technical Specifications Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies,' Revision 1 (Rev. 1), (Reference 2) as the basis for making any changes to the surveillance frequencies once they are relocated out of TS.' As discussed in Comment 4, licensees are not required to revise the Bases to adopt TSTF-425 and any voluntary Bases changes should not be submitted with the amendment as they contain no information material to the NRC's review and can be made under the Technical Specifications Bases Control Program. In addition, Bases changes are not within the scope of the NRC's review under 10 CFR 50.90 because, as stated in 10 CFR 50.36(a), Bases are not part of the Technical Specifications. Therefore, the Bases changes should not be discussed in the NRC's Safety Evaluation."

Disposition: As identified by 10 CFR 50.90, Application for amendment of license, construction permit, or early site permit, which states: "Whenever a holder of a license, including a construction permit and operating license under this part, and an early site permit, combined license, and manufacturing license under part 52 of this chapter, desires to amend the license or permit, application for an amendment must be filed with the Commission, as specified in §§ 50.4 or 52.3 of this chapter, as applicable, fully describing the changes desired, and following as far as applicable, the form prescribed for original applications." Applicants requesting a license amendment, such as the adoption of TSTF-425, under 10 CFR 50.90 are, therefore, required to submit an application that includes the affected TS Bases "...fully describing the changes desired, and following as far as applicable, the form prescribed for original applications." Therefore, while the Bases are not part of the TSs, affected TS Bases

pages are required to be submitted with an application for a licensee amendment request. No changes were made as a result of this comment.

12. (TSTF) Section 3.2, “The Proposed Change Maintains Sufficient Safety Margins,” should be revised as follows: ‘The engineering evaluations that will be conducted by the licensee under the Surveillance Frequency Control Program when Frequencies are revised will assess the impact of the proposed Frequency change with the principle that sufficient safety margins are maintained. The guidelines used for making that assessment will include ensuring the proposed Surveillance test frequency change is not in conflict with approved industry codes and standards or adversely affects any assumptions or inputs to the safety analysis, or, if such inputs are affected, justification is provided to ensure sufficient safety margin will continue to exist.’ This section is referring to Surveillance Frequency changes that will be performed by the licensee under the SFCP after approval of the license amendment, not to any evaluations provided with the license amendment request.

Disposition: The NRC staff accepted the comment and revised the first paragraph of Section 3.4 to state as follows: “The engineering evaluations that will be conducted by the licensee under the Surveillance Frequency Control Program when Frequencies are revised will assess the impact of the proposed Frequency change with the principle that sufficient safety margins are maintained. The guidelines used for making that assessment will include ensuring the proposed Surveillance test frequency change is not in conflict with approved industry codes and standards or adversely affects any assumptions or inputs to the safety analysis, or, if such inputs are affected, justification is provided to ensure sufficient safety margin will continue to exist.”

13. "Section 3.4.1, 'Quality of the PRA,' references NEI 00-02, 'PRA Peer Review Process Guidance.' While NEI 00-02 should continue to be referenced, NEI 05-04, Rev. 2, 'Process for Performing Internal Events PRA Peer Reviews,' should also be referenced."

Disposition: Staff accepted the comment as NRC has endorsed NEI 05-04 Rev.2, "Process for Performing Internal Events PRA Peer reviews," and NEI 05-04 can be referenced as an acceptable method.

14. (TSTF) "Section 3.4.6, 'Acceptance Guidelines,' first paragraph, should be revised to clarify that the acceptance guidelines are in NEI 04-10, Rev. 1, so that it is not implied that the Safety Evaluation contains additional requirements. For example, the first sentence could be revised to state, 'In accordance with NEI 04-10, Rev. 1, [LICENSEE] will quantitatively evaluate the change in total risk (including internal and external events contributions) in terms of core damage frequency (CDF) and large early release frequency (LERF) for both the individual risk impact of a proposed change in surveillance frequency and the cumulative impact from all individual changes to surveillance frequencies.'"

Disposition: Section 3.4.6, first paragraph, is rewritten to clarify that the Safety Evaluation does not add additional requirements. The revised text states as follows: "[LICENSEE] will quantitatively evaluate the change in total risk (including internal and external events contributions) in terms of core damage frequency (CDF) and large early release frequency (LERF) for both the individual risk impact of a proposed change in surveillance frequency and the cumulative impact from all individual changes to surveillance frequencies using the guidance contained in NRC approved NEI 04-10, Rev. 1, in accordance with the TS SFCP."

15. (TSTF) "Section 6.0, 'References', Item 2, should be revised as follows, 'NEI 04-10, Rev. 1,' for consistency with the rest of the document."

Disposition: The NRC staff accepted the comment and revised Section 6.0, "References," Item 2, to state: "NEI 04-10, Revision 1" to correct the omission of the revision number.

For each application the NRC staff will publish a notice of consideration of issuance of amendment to facility operating licenses, a proposed no significant hazards consideration determination, and a notice of opportunity for a hearing. The staff will also publish a notice of issuance of an amendment to the operating license to announce the relocation of surveillance frequencies to licensee-controlled document for each plant that receives the requested change.

Dated at Rockville, MD, this 23rd day of June, 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert Elliott, Chief
Technical Specifications Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

15. (TSTF) "Section 6.0, 'References', Item 2, should be revised as follows, 'NEI 04-10, Rev. 1,' for consistency with the rest of the document."

Disposition: The NRC staff accepted the comment and revised Section 6.0, "References," Item 2, to state: "NEI 04-10, Revision 1" to correct the omission of the revision number.

For each application the NRC staff will publish a notice of consideration of issuance of amendment to facility operating licenses, a proposed no significant hazards consideration determination, and a notice of opportunity for a hearing. The staff will also publish a notice of issuance of an amendment to the operating license to announce the relocation of surveillance frequencies to licensee-controlled document for each plant that receives the requested change.

Dated at Rockville, MD, this 23rd day of June, 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert Elliott, Chief
 Technical Specifications Branch
 Division of Inspection and Regional Support
 Office of Nuclear Reactor Regulation

ADAMS Accession Number: ML091800157

| | | | | | |
|---------------|-----------|-----------------|----------------------|-----------|--------------------------|
| OFFICE | ITSB/DIRS | ITSB/DIRS | DRA/APLA | DSS/SRXB | NRR:PSPB |
| NAME | GWaig | RElliot | DRA/APLA | GCranston | JWilliams R. Subbaratnam |
| DATE | 3/18/09 | 3/25/09&6/23/09 | 3/30/09 | 4/1/09 | 4/29/09 |
| OFFICE | NRR:PSPB | NRR:PSPB | OGC NLO/wComments | | |
| NAME | DBaxley | SRosenberg | M. Smith | | |
| DATE | 4/24 /09 | 6/12/09 | 6/ 4 /09 | | |

OFFICIAL RECORD COPY

THE FOLLOWING EXAMPLE OF AN APPLICATION WAS PREPARED BY THE NRC STAFF. THE MODEL PROVIDES THE EXPECTED LEVEL OF DETAIL AND CONTENT FOR AN APPLICATION TO REVISE TECHNICAL SPECIFICATIONS REGARDING RISK-INFORMED JUSTIFICATION FOR RELOCATION OF SPECIFIC TS SURVEILLANCE FREQUENCIES TO A LICENSEE CONTROLLED PROGRAM CHANGE. LICENSEES REMAIN RESPONSIBLE FOR ENSURING THAT THEIR ACTUAL APPLICATION FULFILLS THEIR ADMINISTRATIVE REQUIREMENTS AS WELL AS NRC REGULATIONS.

U. S. Nuclear Regular Commission
Document Control Desk
Washington, DC 20555

SUBJECT: PLANT NAME
DOCKET NO. 50-

APPLICATION FOR TECHNICAL SPECIFICATION CHANGE REGARDING
RISK -INFORMED JUSTIFICATION FOR THE RELOCATION OF SPECIFIC
SURVEILLANCE FREQUENCY REQUIREMENTS TO A LICENSEE
CONTROLLED PROGRAM

Dear Sir or Madam:

In accordance with the provisions of Title10 of the Code of Federal Regulations (10 CFR Part 50.90), "Application for Amendment of License, Construction Permit, or Early Site Permit," [LICENSEE] is submitting a request for an amendment to the technical specifications (TS) for [PLANT NAME, UNIT NOS.].

The proposed amendment would modify [LICENSEE] technical specifications by relocating specific surveillance frequencies to a licensee-controlled program with the implementation of

Nuclear Energy Institute (NEI) 04–10, “Risk-Informed Technical Specification Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies.”

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides documentation of PRA technical adequacy. Attachment 3 provides the existing TS pages marked up to show the proposed change. Attachment 4 provides revised (clean) TS pages. Attachment 5 provides the proposed TS Bases changes. Attachment 6 Proposed No Significant Hazards Consideration.

[LICENSEE] requests approval of the proposed license amendment by [DATE], with the amendment being implemented [BY DATE OR WITHIN X DAYS].

In accordance with 10 CFR 50.91, “Notice for Public Comment; State Consultation,” a copy of this application, with attachments, is being provided to the designated [STATE] Official.

I declare [or certify, verify, state] under penalty of perjury that the foregoing is correct and true.

Executed on [Date] [Signature]

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER]

Sincerely,

[Name, Title]

Attachments:

1. Description and Assessment
2. Documentation of PRA Technical Adequacy
3. Proposed Technical Specification Changes
4. Revised Technical Specification Pages
5. Proposed Technical Specification Bases Changes
6. Proposed No Significant Hazards Consideration

cc: U. S. Nuclear Regulatory Commission
Regional Office
NRC Resident Inspector

ATTACHMENT 1

DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

The proposed amendment would modify technical specifications by relocating specific surveillance frequencies to a licensee-controlled program with the adoption of Technical Specification Task Force (TSTF)-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control-risk Informed Technical Specification Task Force (RITSTF) Initiative 5." Additionally, the change would add a new program, the Surveillance Frequency Control Program, to TS Section [5], Administrative Controls.

The changes are consistent with NRC approved Industry/TSTF STS change TSTF-425, Revision 3, (Rev. 3) (ADAMS Accession No. ML080280275). The *Federal Register* notice published on [DATE] announced the availability of this TS improvement.

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

[LICENSEE] has reviewed the safety evaluation dated [DATE]. This review included a review of the NRC staff's evaluation, TSTF-425, Revision 3, and the requirements specified in NEI 04-10, Rev. 1, (ADAMS Accession No. ML071360456).

Attachment 2 includes [LICENSEE] documentation with regard to PRA technical adequacy consistent with the requirements of Regulatory Guide 1.200, Revision 1 (ADAMS Accession No. ML070240001), Section 4.2, and describes any PRA models without NRC-endorsed standards, including documentation of the quality characteristics of those models in accordance with Regulatory Guide 1. 200.

[LICENSEE] has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to [PLANT, UNIT NOS.] and justify this amendment to incorporate the changes to the [PLANT] TS.

2.2 Optional Changes and Variations

[LICENSEE] is not proposing any variations or deviations from the STS changes described in TSTF-425, Rev. 3, and the NRC staff's model safety evaluation dated [DATE].

[The proposed amendment is consistent with the STS changes described in TSTF-425, Revision 3, but [LICENSEE] proposes variations or deviations from TSTF-425, as identified below and may include differing TS Surveillance numbers].

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration

[LICENSEE] has reviewed the proposed no significant hazards consideration determination (NSHC) published in the *Federal Register* [DATE]([] FR []). [LICENSEE] has concluded that the proposed NSHC presented in the Federal Register notice is applicable to [PLANT NAME,

UNIT NOS.] and is provided as an attachment to this amendment request which satisfies the requirements of 10 CFR 50.91(a).

ATTACHMENT 2—DOCUMENTATION OF PRA TECHNICAL ADEQUACY

ATTACHMENT 3—PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)

ATTACHMENT 4—PROPOSED TECHNICAL SPECIFICATION PAGES

ATTACHMENT 5—PROPOSED CHANGES TO TECHNICAL SPECIFICATION BASES PAGES

**ATTACHMENT 6
PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION**

Description of Amendment Request: The change requests the adoption of an approved change to the standard technical specifications (STS) for [Babcock and Wilcox (B&W) Plants (NUREG-1430), Westinghouse Plants (NUREG-1431), Combustion Engineering Plants (NUREG-1432), General Electric Plants, BWR/4 (NUREG-1433), and General Electric Plants, BWR/6 (NUREG-1334)], to allow relocation of specific TS surveillance frequencies to a licensee-controlled program. The proposed change is described in Technical Specification Task Force (TSTF) Traveler, TSTF-425, Revision 3 (Rev. 3) (ADAMS Accession No. ML080280275) related to the Relocation of Surveillance Frequencies to Licensee Control—RITSTF Initiative 5b and was described in the Notice of Availability published in the *Federal Register* on [Date] ([xx FR xxxxx]).

The proposed changes are consistent with NRC-approved Industry/Technical Specification Task Force (TSTF) Traveler, TSTF-425, Rev. 3, "Relocate Surveillance Frequencies to Licensee Control—RITSTF Initiative 5b." The proposed change relocates surveillance frequencies to a licensee-controlled program, the SFCP. This change is applicable to licensees using probabilistic risk guidelines contained in NRC-approved NEI 04-10, "Risk-Informed Technical Specifications Initiative 5b, Risk-Informed Method for Control of Surveillance Frequencies," (ADAMS Accession No. 071360456).

Basis for proposed no significant hazards consideration: As required by 10 CFR 50.91(a), the [LICENSEE] analysis of the issue of no significant hazards consideration is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No

The proposed change relocates the specified frequencies for periodic surveillance requirements to licensee control under a new Surveillance Frequency Control Program. Surveillance frequencies are not an initiator to any accident previously evaluated. As a result, the probability of any accident previously evaluated is not significantly increased. The systems and components required by the technical specifications for which the surveillance frequencies are relocated are still required to be operable, meet the acceptance criteria for the surveillance requirements, and be capable of performing any mitigation function assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly increased.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No

No new or different accidents result from utilizing the proposed change. The changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant

operation. In addition, the changes do not impose any new or different requirements. The changes do not alter assumptions made in the safety analysis. The proposed changes are consistent with the safety analysis assumptions and current plant operating practice.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in the margin of safety?

Response: No

The design, operation, testing methods, and acceptance criteria for systems, structures, and components (SSCs), specified in applicable codes and standards (or alternatives approved for use by the NRC) will continue to be met as described in the plant licensing basis (including the final safety analysis report and bases to TS), since these are not affected by changes to the surveillance frequencies. Similarly, there is no impact to safety analysis acceptance criteria as described in the plant licensing basis. To evaluate a change in the relocated surveillance frequency, [LICENSEE] will perform a probabilistic risk evaluation using the guidance contained in NRC approved NEI 04-10, Rev. 1 in accordance with the TS SFCP. NEI 04-10, Rev. 1, methodology provides reasonable acceptance guidelines and methods for evaluating the risk increase of proposed changes to surveillance frequencies consistent with Regulatory Guide 1.177.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based upon the reasoning presented above licensee concludes that, the requested change does not involve a significant hazards consideration as set forth in 10 CFR 50.92(c), Issuance of Amendment.

Proposed Safety Evaluation

U.S. Nuclear Regulatory Commission

Office of Nuclear Reactor Regulation

Technical Specification Task Force (TSTF) Change TSTF-425

Relocate Surveillance Frequencies to Licensee Control

1.0 INTRODUCTION

By letter dated [-----, 20--], [LICENSEE] (the licensee) proposed changes to the technical specifications (TS) for [PLANT NAME]. The requested change is the adoption of NRC-approved TSTF-425, Revision 3, “Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b” (Reference 1). When implemented, TSTF-425, Revision 3 (Rev. 3) relocates most periodic frequencies of technical specifications (TS) surveillances to a licensee controlled program, the SFCP, and provides requirements for the new program in the administrative controls section of TS. All surveillance frequencies can be relocated except:

- Frequencies that reference other approved programs for the specific interval (such as the Inservice Testing Program or the Primary Containment Leakage Rate Testing Program),
- Frequencies that are purely event driven (e.g., “Each time the control rod is withdrawn to the ‘full out’ position”).
- Frequencies that are event-driven but have a time component for performing the surveillance on a one-time basis once the event occurs (e.g., “within 24 hours after thermal power reaching $\geq 95\%$ RTP”).

- Frequencies that are related to specific conditions (e.g., battery degradation, age and capacity) or conditions for the performance of a surveillance requirement (e.g., “drywell to suppression chamber differential pressure decrease”).

[The definition of “Staggered Test Basis” in TS Section 1.1, “Definitions,” is deleted.

[LICENSEE] adopts TSTF-425, Rev. 3, and no longer uses this defined term in the technical specifications and proposes removing it from Section 1.1.] A new Administrative Controls Program is added to TS section 5 as [Specification 5.5.15 (NUREG-1433 and -1434) or Specification 5.5.18 (NUREG-1430, 1431, and 1432)]. The new program is called the SFCP and describes the requirements for the program to control changes to the relocated surveillance frequencies. The TS Bases for each affected surveillance are revised to state that the frequency is set in accordance with the Surveillance Frequency Control Program. [Various editorial changes have been made to the Bases to facilitate the addition of the Bases changes.] Some surveillance Bases do not contain a discussion of the frequency. In these cases, Bases describing the current frequency were added to maintain consistency with the Bases for similar surveillances. These instances are noted in the markup along with the source of the text. The proposed licensee changes to the administrative controls of TS to incorporate the SFCP includes a specific reference to NEI 04-10, “Risk-Informed Technical Specifications Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies,” Revision 1 (Rev. 1), (Reference 2) as the basis for making any changes to the surveillance frequencies once they are relocated out of TS.

In a letter dated September 19, 2007, the NRC staff approved Nuclear Energy Institute (NEI) Topical Report (TR) 04-10, Rev. 1, “Risk-Informed Technical Specification initiative 5B, Risk Informed Method for Control of Surveillance Frequencies” (ADAMS Accession No. 072570267), as acceptable for referencing in licensing actions to the extent specified and under the

limitations delineated in NEI 04-10, Rev. 1, and the final acceptance SE providing the basis for NRC acceptance of NEI 04-10, Rev 1.

2.0 REGULATORY EVALUATION

In the “Final Policy Statement: Technical Specifications for Nuclear Power Plants” published in the *Federal Register (FR)* (58 FR 39132, 7/22/93) the NRC addressed the use of Probabilistic Safety Analysis (PSA, currently referred to as Probabilistic Risk Analysis or PRA) in STS. In this 1993 *FR* publication, the NRC states, in part:

“The Commission believes that it would be inappropriate at this time to allow requirements which meet one or more of the first three criteria [of 10 CFR 50.36] to be deleted from technical specifications based solely on PSA (Criterion 4). However, if the results of PSA indicate that technical specifications can be relaxed or removed, a deterministic review will be performed.”

“The Commission Policy in this regard is consistent with its Policy Statement on ‘Safety Goals for the operation of Nuclear Power Plants,’ 51 FR 30028, published on August 21, 1986. The Policy Statement on Safety Goals states in part, probabilistic results should also be reasonably balanced and supported through use of deterministic arguments. In this way, judgments can be made about the degree of confidence to be given these [probabilistic] estimates and assumptions. This is a key part of the process for determining the degree of regulatory conservatism that may be warranted for particular decisions. This ‘defense-in-depth’ approach is expected to continue to ensure the protection of public health and safety.”

“The Commission will continue to use PSA, consistent with its policy on Safety Goals, as a tool in evaluating specific line-item improvements to Technical Specifications, new requirements, and industry proposals for risk-based Technical Specification changes.”

Approximately two years later the NRC provided additional detail concerning the use of PRA in the “Final Policy Statement: Use of Probabilistic Risk Assessment in Nuclear Regulatory Activities” published in the *Federal Register* (60 FR 42622, August 16, 1995) the NRC addressed the use of Probabilistic Risk Assessment. In this *FR* publication, the NRC states, in-part:

“The Commission believes that an overall policy on the use of PRA methods in nuclear regulatory activities should be established so that the many potential applications of PRA can be implemented in a consistent and predictable manner that would promote regulatory stability and efficiency. In addition, the Commission believes that the use of PRA technology in NRC regulatory activities should be increased to the extent supported by the state-of-the-art in PRA methods and data and in a manner that complements the NRC’s deterministic approach.”

“PRA addresses a broad spectrum of initiating events by assessing the event frequency. Mitigating system reliability is then assessed, including the potential for multiple and common-cause failures. The treatment, therefore, goes beyond the single failure requirements in the deterministic approach. The probabilistic approach to regulation is, therefore, considered an extension and enhancement of traditional regulation by considering risk in a more coherent and complete manner.”

“Therefore, the Commission believes that an overall policy on the use of PRA in nuclear regulatory activities should be established so that the many potential applications of PRA can be implemented in a consistent and predictable manner that promotes regulatory stability and efficiency. This policy statement sets forth the Commission’s intention to encourage the use of PRA and to expand the scope of PRA applications in all nuclear regulatory matters to the extent supported by the state-of-the-art in terms of methods and data.”

“Therefore, the Commission adopts the following policy statement regarding the expanded NRC use of PRA:

(1) The use of PRA technology should be increased in all regulatory matters to the extent supported by the state-of-the-art in PRA methods and data and in a manner that complements the NRC’s deterministic approach and supports the NRC’s traditional defense-in-depth philosophy.

(2) PRA and associated analyses (e.g., sensitivity studies, uncertainty analyses, and importance measures) should be used in regulatory matters, where practical within the bounds of the state-of-the-art, to reduce unnecessary conservatism associated with current regulatory requirements, regulatory guides, license commitments, and staff practices. Where appropriate, PRA should be used to support the proposal for additional regulatory requirements in accordance with 10 CFR 50.109 (Backfit Rule). Appropriate procedures for including PRA in the process should be developed and followed. It is, of course, understood that the intent of this policy is that existing rules and regulations shall be complied with unless these rules and regulations are revised.

(3) PRA evaluations in support of regulatory decisions should be as realistic as practicable and appropriate supporting data should be publicly available for review.

(4) The Commission’s safety goals for nuclear power plants and subsidiary numerical objectives are to be used with appropriate consideration of

uncertainties in making regulatory judgments on the need for proposing and backfitting new generic requirements on nuclear power plant licensees.”

In 10 CFR 50.36, the NRC established its regulatory requirements related to the content of TS. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. As stated in 10 CFR 50.36(c)(3), “Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.” These categories will remain in TS. The new TS SFCP provides the necessary administrative controls to require that surveillances relocated to the SFCP are conducted at a frequency to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met. Changes to surveillance frequencies in the SFCP are made using the methodology contained in NEI 04-10, Rev. 1, including qualitative considerations, results of risk analyses, sensitivity studies and any bounding analyses, and recommended monitoring of SSCs, are required to be documented. Furthermore, changes to frequencies are subject to regulatory review and oversight of the SFCP implementation through the rigorous NRC review of safety related SSC performance provided by the reactor oversight program (ROP).

[LICENSEE] SFCP ensures that surveillance requirements specified in the TS are performed at intervals sufficient to assure the above regulatory requirements are met. Existing regulatory requirements, such as 10 CFR 50.65, “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants” and 10 CFR 50 Appendix B (corrective action program), require licensee monitoring of surveillance test failures and implementing corrective actions to

address such failures. One of these actions may be to consider increasing the frequency at which a surveillance test is performed. In addition, the SFCP implementation guidance in NEI 04-10, Rev. 1, requires monitoring of the performance of structures, systems, and components (SSCs) for which surveillance frequencies are decreased to assure reduced testing does not adversely impact the SSCs.

This change is analogous with other NRC-approved TS changes in which the surveillance requirements are retained in technical specifications but the related surveillance frequencies are relocated to licensee-controlled documents, such as surveillances performed in accordance with the In-Service Testing Program and the Primary Containment Leakage Rate Testing Program. Thus, this proposed change complies with 10 CFR 50.36(c)(3) by retaining the requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met and meets the first key safety principle articulated in Regulatory Guide (RG) 1.177 (Reference 3) for plant-specific, risk-informed TS changes by complying with current regulations.

Licenseses are required by TS to perform surveillance test, calibration, or inspection on specific safety related system equipment such as reactivity control, power distribution, electrical, instrumentation, and others to verify system operability. Surveillance frequencies, currently identified in TS, are based primarily upon deterministic methods such as engineering judgment, operating experience, and manufacturer's recommendations. The licensee's use of NRC-approved PRA methodologies identified in NEI 04-10, Rev. 1, provides a way to establish risk-informed Surveillance frequencies that complements the deterministic approach and supports the NRC's traditional defense-in-depth philosophy.

These regulatory requirements, and the monitoring required by NEI 04-10, Rev. 1, ensure that surveillance frequencies are sufficient to assure that the requirements of 10 CFR 50.36 are satisfied and that any performance deficiencies will be identified and appropriate corrective actions taken.

3.0 TECHNICAL EVALUATION

[LICENSEE] adoption of TSTF-425, Rev. 3, provides for administrative relocation of applicable surveillance frequencies, and provides for the addition of the SFCP to the administrative controls of TS. TSTF-425, Rev. 3, also requires the application of NEI 04-10, Rev. 1, for any changes to surveillance frequencies within the SFCP. The licensee's application for the changes proposed in TSTF-425, Rev. 3, included documentation regarding the probabilistic risk assessment (PRA) technical adequacy consistent with the requirements of Regulatory Guide 1.200 (RG-1.200) (Reference 4), "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities", Section 4.2. In accordance with NEI 04-10, Rev. 1, probabilistic risk assessment (PRA) methods are used, in combination with plant performance data and other considerations, to identify and justify modifications to the surveillance frequencies of equipment at nuclear power plants. This is in accordance with guidance provided in RG 1.174 (Reference 5) and RG 1.177 in support of changes to surveillance test intervals.

RG 1.177 identifies five key safety principles required for risk-informed changes to TS. Each of these principles is addressed by the industry methodology document, NEI 04-10, Rev. 1. The second through the fifth principles, which relate to the technical aspects of the proposed change, are discussed below in Sections 3.1 through 3.4. The first principle requires the

proposed change to meet the current regulations. The staff finds that the change meets that requirement.

3.1 **The proposed change is consistent with the defense-in-depth philosophy.**

Consistency with the defense-in-depth philosophy, the second key safety principle of RG 1.177, is maintained if:

- A reasonable balance is preserved among prevention of core damage, prevention of containment failure, and consequence mitigation.
- Over-reliance on programmatic activities to compensate for weaknesses in plant design is avoided.
- System redundancy, independence, and diversity are preserved commensurate with the expected frequency, consequences of challenges to the system, and uncertainties (e.g., no risk outliers). Because the scope of the proposed methodology is limited to revision of surveillance frequencies, the redundancy, independence, and diversity of plant systems are not impacted.
- Defenses against potential common cause failures are preserved, and the potential for the introduction of new common cause failure mechanisms is assessed.
- Independence of barriers is not degraded.
- Defenses against human errors are preserved.
- The intent of the General Design Criteria in 10 CFR Part 50, Appendix A, is maintained.

TSTF-425, Rev. 3, requires the application of NEI 04-10, Rev. 1, for any changes to surveillance frequencies within the SFCP. NEI 04-10, Rev. 1, uses both the core damage frequency (CDF) and the large early release frequency (LERF) metrics to evaluate the impact of proposed changes to surveillance frequencies. The guidance of RG 1.174 and RG 1.177 for changes to CDF and LERF is achieved by evaluation using a comprehensive risk analysis, which assesses the impact of proposed changes including contributions from human errors and common cause failures. Defense-in-depth is also included in the methodology explicitly as a qualitative consideration outside of the risk analysis, as is the potential impact on detection of component degradation that could lead to increased likelihood of common cause failures. Both the quantitative risk analysis and the qualitative considerations assure a reasonable balance of defense-in-depth is maintained to ensure protection of public health and safety, satisfying the second key safety principle of RG 1.177.

3.2 The proposed change maintains sufficient safety margins

The engineering evaluation that will be conducted by the licensee under the Surveillance Frequency Control Program when Frequencies are revised will assess the impact of the proposed Frequency change with the principle that sufficient safety margins are maintained.

The guidelines used for making that assessment will include ensuring the proposed Surveillance test frequency change is not in conflict with approved industry codes and standards or adversely affects any assumptions or inputs to the safety analysis, or, if such inputs are affected, justification is provided to ensure sufficient safety margin will continue to exist.

The design, operation, testing methods, and acceptance criteria for SSCs, specified in applicable codes and standards (or alternatives approved for use by the NRC) will continue to be met as described in the plant licensing basis (including the [Updated] Final Safety Analysis

Report and bases to TS), since these are not affected by changes to the surveillance frequencies. Similarly, there is no impact to safety analysis acceptance criteria as described in the plant licensing basis.

Thus, safety margins are maintained by the proposed methodology, and the third key safety principle of RG 1.177 is satisfied.

3.3 When proposed changes result in an increase in core damage frequency or risk, the increases should be small and consistent with the intent of the Commission's Safety Goal Policy Statement.

RG 1.177 provides a framework for risk evaluation of proposed changes to surveillance frequencies, which requires identification of the risk contribution from impacted surveillances, determination of the risk impact from the change to the proposed surveillance frequency, and performance of sensitivity and uncertainty evaluations. TSTF-425, Rev. 3, requires application of NEI 04-10, Rev. 1, in the SFCP. NEI 04-10, Rev. 1, satisfies the intent of RG 1.177 requirements for evaluation of the change in risk, and for assuring that such changes are small by providing the technical methodology to support risk informed technical specifications for control of surveillance frequencies.

3.4.1 Quality of the PRA

The quality of the [LICENSEE] PRA is compatible with the safety implications of the proposed TS change and the role the PRA plays in justifying the change. That is, the more the potential change in risk or the greater the uncertainty in that risk from the requested TS change, or both, the more rigor that must go into ensuring the quality of the PRA.

[LICENSEE] used RG 1.200 to address the plant PRA technical adequacy. RG 1.200 is NRC developed regulatory guidance, which addresses the use of the American Society of Mechanical Engineers (ASME) RA-Sb-2005, Addenda to ASME RA-S-2002 Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications (Reference 6), NEI 00-02, PRA peer Review Process guidelines (Reference 7) and NEI 05-04, Process for Performing Follow-On PRA Peer Reviews Using the ASME PRA Standard (Reference 8). The licensee has performed an assessment of the PRA models used to support the SFCP against the requirements of RG 1.200 to assure that the PRA models are capable of determining the change in risk due to changes to surveillance frequencies of SSCs, using plant specific data and models. Capability category II of ASME RA-Sb-2005 is applied as the standard, and any identified deficiencies to those requirements are assessed further in sensitivity studies to determine any impacts to proposed decreases to surveillance frequencies. This level of PRA quality, combined with the proposed sensitivity studies, is sufficient to support the evaluation of changes proposed to surveillance frequencies within the SFCP, and is consistent with regulatory position 2.3.1 of RG 1.177.

3.4.2 Scope of the PRA

[LICENSEE] is required to evaluate each proposed change to a relocated surveillance frequency using the guidance contained in NEI 04-10, Rev. 1, to determine its potential impact on risk, due to impacts from internal events, fires, seismic, other external events, and from shutdown conditions. Consideration is made of both CDF and LERF metrics. In cases where a PRA of sufficient scope or where quantitative risk models were unavailable, [LICENSEE] uses bounding analyses, or other conservative quantitative evaluations. A qualitative screening analysis may be used when the surveillance frequency impact on plant risk is shown to be negligible or zero. The licensee's evaluation methodology is sufficient to ensure the scope of

the risk contribution of each surveillance frequency change is properly identified for evaluation, and is consistent with regulatory position 2.3.2 of RG 1.177.

3.4.3 PRA Modeling

The [LICENSEE] will determine whether the SSCs affected by a proposed change to a surveillance frequency are modeled in the PRA. Where the SSC is directly or implicitly modeled, a quantitative evaluation of the risk impact may be carried out. The methodology adjusts the failure probability of the impacted SSCs, including any impacted common cause failure modes, based on the proposed change to the surveillance frequency. Where the SSC is not modeled in the PRA, bounding analyses are performed to characterize the impact of the proposed change to surveillance frequency. Potential impacts on the risk analyses due to screening criteria and truncation levels are addressed by the requirements for PRA technical adequacy consistent with guidance contained in RG 1.200, and by sensitivity studies identified in NEI 04-10, Rev. 1.

The licensee will perform quantitative evaluations of the impact of selected testing strategy (i.e., staggered testing or sequential testing) consistently with the guidance of NUREG/CR-6141 and NUREG/CR-5497, as discussed in NEI 04-10 Rev. 1.

Thus, through the application of NEI 04-10, Rev. 1, the [LICENSEE] PRA modeling is sufficient to ensure an acceptable evaluation of risk for the proposed changes in surveillance frequency, and is consistent with regulatory position 2.3.3 of RG 1.177.

3.4.4 Assumptions for Time Related Failure Contributions

The failure probabilities of SSCs modeled in the [LICENSEE] PRA [include] a standby time-related contribution and a cyclic demand-related contribution. NEI 04-10, Rev. 1, criteria adjust the time-related failure contribution of SSCs affected by the proposed change to surveillance frequency. This is consistent with RG 1.177 Section 2.3.3 which permits separation of the failure rate contributions into demand and standby for evaluation of surveillance requirements. If the available data do not support distinguishing between the time-related failures and demand failures, then the change to surveillance frequency is conservatively assumed to impact the total failure probability of the SSC, including both standby and demand contributions. The SSC failure rate (per unit time) is assumed to be unaffected by the change in test frequency, and will be confirmed by the required monitoring and feedback implemented after the change in surveillance frequency is implemented. The process requires consideration of qualitative sources of information with regards to potential impacts of test frequency on SSC performance, including industry and plant-specific operating experience, vendor recommendations, industry standards, and code-specified test intervals. Thus the process is not reliant upon risk analyses as the sole basis for the proposed changes.

The potential beneficial risk impacts of reduced surveillance frequency, including reduced downtime, lesser potential for restoration errors, reduction of potential for test caused transients, and reduced test-caused wear of equipment, are identified qualitatively, but are conservatively not required to be quantitatively assessed. Thus, through the application of NEI 04-10, Rev. 1, [LICENSEE] has employed reasonable assumptions with regard to extensions of surveillance test intervals, and is consistent with regulatory position 2.3.4 of RG 1.177.

3.4.5 Sensitivity and Uncertainty Analyses

NEI 04-10, Rev. 1, requires sensitivity studies to assess the impact of uncertainties from key assumptions of the PRA, uncertainty in the failure probabilities of the affected SSCs, impact to the frequency of initiating events, and of any identified deviations from capability Category II of ASME PRA Standard (ASME RA-Sb-2005) (Reference 4). Where the sensitivity analyses identify a potential impact on the proposed change, revised surveillance frequencies are considered, along with any qualitative considerations that may bear on the results of such sensitivity studies. Required monitoring and feedback of SSC performance once the revised surveillance frequencies are implemented will also be performed. Thus, through the application of NEI 04-10, Rev. 1, [LICENSEE] has appropriately considered the possible impact of PRA model uncertainty and sensitivity to key assumptions and model limitations, consistently with regulatory position 2.3.5 of RG 1.177.

3.4.6 Acceptance Guidelines

[LICENSEE] will quantitatively evaluate the change in total risk (including internal and external events contributions) in terms of core damage frequency (CDF) and large early release frequency (LERF) for both the individual risk impact of a proposed change in surveillance frequency and the cumulative impact from all individual changes to surveillance frequencies using the guidance contained in NRC approved NEI 04-10, Rev. 1 in accordance with the TS SFCP. Each individual change to surveillance frequency must show a risk impact below $1E-6$ per year for change to CDF, and below $1E-7$ per year for change to LERF. These are consistent with the limits of RG 1.174 for very small changes in risk. Where the RG 1.174 limits are not met, the process either considers revised surveillance frequencies which are consistent with RG 1.174, or the process terminates without permitting the proposed changes. Where

quantitative results are unavailable to permit comparison to acceptance guidelines, appropriate qualitative analyses are required to demonstrate that the associated risk impact of a proposed change to surveillance frequency is negligible or zero. Otherwise, bounding quantitative analyses are required which demonstrate the risk impact is at least one order of magnitude lower than the RG 1.174 acceptance guidelines for very small changes in risk. In addition to assessing each individual SSC surveillance frequency change, the cumulative impact of all changes must result in a risk impact below $1E-5$ per year for change to CDF, and below $1E-6$ per year for change to LERF, and the total CDF and total LERF must be reasonably shown to be less than $1E-4$ per year and $1E-5$ per year, respectively. These are consistent with the limits of RG 1.174 for acceptable changes in risk, as referenced by RG 1.177 for changes to surveillance frequencies. The staff interprets this assessment of cumulative risk as a requirement to calculate the change in risk from a baseline model utilizing failure probabilities based on the surveillance frequencies prior to implementation of the SFCP, compared to a revised model with failure probabilities based on changed surveillance frequencies. The staff further notes that [LICENSEE] includes a provision to exclude the contribution to cumulative risk from individual changes to surveillance frequencies associated with small risk increases (less than $5E-8$ CDF and $5E-9$ LERF) once the baseline PRA models are updated to include the effects of the revised surveillance frequencies.

The quantitative acceptance guidance of RG 1.174 is supplemented by qualitative information to evaluate the proposed changes to surveillance frequencies, including industry and plant-specific operating experience, vendor recommendations, industry standards, the results of sensitivity studies, and SSC performance data and test history.

The final acceptability of the proposed change is based on all of these considerations and not solely on the PRA results compared to numerical acceptance guidelines. Post implementation

performance monitoring and feedback are also required to assure continued reliability of the components. The licensee's application of NEI 04-10, Rev. 1, provides reasonable acceptance guidelines and methods for evaluating the risk increase of proposed changes to surveillance frequencies, consistent with Regulatory Position 2.4 of RG 1.177. Therefore, the proposed [LICENSEE] methodology satisfies the fourth key safety principle of RG 1.177 by assuring any increase in risk is small consistent with the intent of the Commission's Safety Goal Policy Statement.

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

[LICENSEE] adoption of TSTF-425, Rev. 3, requires application of NEI 04-10, Rev. 1, in the SFCP. NEI 04-10, Rev. 1, requires performance monitoring of SSCs whose surveillance frequency has been revised as part of a feedback process to assure that the change in test frequency has not resulted in degradation of equipment performance and operational safety. The monitoring and feedback includes consideration of maintenance rule monitoring of equipment performance. In the event of degradation of SSC performance, the surveillance frequency will be reassessed in accordance with the methodology, in addition to any corrective actions which may apply as part of the maintenance rule requirements. The performance monitoring and feedback specified in NEI 04-10, Rev. 1, is sufficient to reasonably assure acceptable SSC performance and is consistent with regulatory position 3.2 of RG 1.177. Thus, the fifth key safety principle of RG 1.177 is satisfied.

3.4.8 Addition of Surveillance Frequency Control Program to TS Section 5

[LICENSEE] has included the SFCP and specific requirements into TS Section [5.5.15 or 5.5.18], administrative controls, as follows:

This program provides controls for surveillance frequencies. The program ensures that surveillance requirements specified in the technical specifications are performed at intervals (frequencies) sufficient to assure that the associated limiting conditions for operation are met.

- a. The Surveillance Frequency Control Program contains a list of frequencies of those surveillance requirements for which the frequency is controlled by the program.
- b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.
- c. The provisions of surveillance requirements 3.0.2 and 3.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

SUMMARY AND CONCLUSIONS

The staff has reviewed the [LICENSEE] proposed relocation of some surveillance frequencies to a licensee controlled document, and controlling changes to surveillance frequencies in accordance with a new program, the SFCP, identified in the administrative controls of TS. The SFCP and TS Section [5.5.15, 5.5.18] references NEI 04-10, Rev. 1, which provides a risk-informed methodology using plant-specific risk insights and performance data to revise surveillance frequencies within the SFCP. This methodology supports relocating surveillance frequencies from TS to a licensee-controlled document, provided those frequencies are changed in accordance with NEI 04-10, Rev. 1, which is specified in the administrative controls of the TS.

The proposed [LICENSEE] adoption of TSTF-425, Rev. 3, and risk-informed methodology of NEI 04-10, Rev. 1, as referenced in the administrative controls of TS, satisfies the key principles of risk-informed decision making applied to changes to TS as delineated in RG 1.177 and RG 1.174, in that:

- The proposed change meets current regulations;
- The proposed change is consistent with defense-in-depth philosophy;
- The proposed change maintains sufficient safety margins;
- Increases in risk resulting from the proposed change are small and consistent with the Commission's Safety Goal Policy Statement; and
- The impact of the proposed change is monitored with performance measurement strategies.

10 CFR 50.36(c)(3) states “Technical specifications will include items in the following categories: Surveillance Requirements. Surveillance Requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.” The NRC staff finds that with the proposed relocation of surveillance frequencies to an owner-controlled document and administratively controlled in accordance with the TS SFCP, [LICENSEE] continues to meet the regulatory requirement of 10 CFR 50.36, and specifically, 10 CFR 50.36(c)(3), surveillance requirements.

The NRC has concluded, on the basis of the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the NRC’s regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

4.0 STATE CONSULTATION

In accordance with the NRC’s regulations, the [] State official was notified of the proposed issuance of the amendment. The State official had [(1) no comments or (2) the following comments - with subsequent disposition by the staff].

5.0 ENVIRONMENTAL CONSIDERATION

The amendment[s] change[s] a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The NRC has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding published [DATE] ([] FR []). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and c(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 REFERENCES

1. TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b," March 18, 2009 (ADAMS Accession Number: ML090850642).
2. NEI 04-10, Revision 1, "Risk-Informed Technical Specifications Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies," April 2007 (ADAMS Accession Number: ML071360456).
3. Regulatory Guide 1.177, "An Approach for Plant-Specific, Risk-Informed Decision-making: Technical Specifications," August 1998 (ADAMS Accession Number: ML003740176).
4. Regulatory Guide 1.200, Rev. 1 "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," Revision 1, January 2007 (ADAMS Accession Number: ML070240001).
5. Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," NRC, August 1998 (ADAMS Accession Number: ML003740133).
6. ASME PRA Standard ASME RA-Sb-2005, Addenda to ASME RA-S-2002, "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Application."

7. NEI 00-02, Rev. 1 "Probabilistic Risk Assessment (PRA) Peer Review Process Guidance, Rev. 1, May 2006 (ADAMS Accession Number: ML061510621).
8. NEI 05-04, "Process for Performing Follow-On PRA Peer Reviews Using the ASME PRA Standard.", Rev.0, August 2006.