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Licensee Actions to Address Nonconservative Technical Specifications

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Revision 1 Changes:

- Removed revision numbers and dates from the report references.
- Revised the document to discuss the TS Bases as well as the UFSAR, consistent with the definition of a nonconservative TS. Added an example of an NCTS with respect to the TS Bases.
- Section 3.2 is clarified by replacing "operating license" with "TS".
- Section 3.3 is clarified that final resolution is an <u>approved</u> license amendment or licensing basis change.

Revision 2 Changes:

- The reference to ISFSI TS was eliminated.
- The definition of a nonconservative TS was replaced with a description of the document purpose and clarified to emphasize that the guidance encompasses the scope of Administrative Letter 98-10.
- Section 3.3, "NCTS Entry into the Corrective Action Process," was updated to reference NEI 16-07.
- Various wording clarifications were made to address NRC comments.

Revision 3 Changes:

- Section 3.3, NCTS Entry into the CAP was updated to remove reference to NEI 16-07, "Improving the Effectiveness of Issue Resolution to Enhance Safety and Efficiency" as it is not endorsed by the NRC and should not be contained in a document seeking NRC endorsement. Reference to CAP remains as required IAW 10 CFR 50 Appendix B, Criterion XVI.
- Section 3.6, Implementation of Final Corrective Action revised removing unnecessary clarification on the timeliness of final corrective action the multiple examples when licensees failed to correct an NCTS in a timely manner.
- Section 4, References, removed reference to NEI 16-07, "Improving the Effectiveness of Issue Resolution to Enhance Safety and Efficiency"

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FOREWORD

This guidance describes actions that may be taken by nuclear utilities to address an operating license technical specification that is nonconservative (i.e., a nonconservative technical specification or "NCTS"). In 1998, the Nuclear Regulatory Commission issued Administrative Letter 98-10 (AL 98-10), "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety." Since issuance of AL 98-10, industry operating and regulatory experience has indicated the need to provide additional guidance to licensees. This guidance does not establish any new regulatory requirements, but provides a process to ensure appropriate steps are taken when an NCTS is identified.

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LICENSEE ACTIONS TO ADDRESS NONCONSERVATIVE TECHNICAL SPECIFICATIONS

1 INTRODUCTION

Title 10 of the *Code of Federal Regulations* (10 CFR), section 50.36(b), requires each license authorizing operation of a power plant to include technical specifications (TS). Because they are included in the facility operating license issued by the Nuclear Regulatory Commission (NRC), TS are not licensee-controlled documents; however, upon identification of a TS that is nonconservative, licensees must take prompt action to verify and maintain acceptable plant conditions, comply with license and regulatory requirements, and communicate the details of the condition appropriately. Following prompt completion of these actions, licensees initiate license actions as necessary to resolve the non-conservatism.

In 1998, the NRC issued Administrative Letter 98-10 (AL 98-10), "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety" (Reference 1). This document provides additional guidance that licensees may use to meet the objectives discussed above. This guidance does not establish any new regulatory requirements but suggests a process to ensure the appropriate steps are taken.

2 PURPOSE

This document provides guidance to licensees to address an existing operating license TS that is nonconservative (e.g., determined to be insufficient to protect the assumptions or conclusions of the UFSAR or TS Bases for the applicable TS), referred to herein as a nonconservative technical specification (NCTS). This document is intended to fully encompass the subject of AL 98-10, which addresses "specific values or required actions in TS (that) may not assure safety," and may further include other NCTS requirements such as surveillance requirements, applicability statements, design features, and administrative controls.

The scope of the document is consistent with 10 CFR 50.36(a)(1) and (b), which requires an applicant for an operating license to propose TS and provide a summary statement of the bases or reasons for such specifications, and further requires the inclusion of TS in the license issued by the NRC. Such TS are to be "...derived from the analyses and evaluations included in the safety analysis report, and amendments thereto..."

The reference to "an existing TS requirement" clarifies that the absence of a TS requirement is not by itself an NCTS. Additionally, specific licensee TS that are less restrictive than standard TS or TS of other licensees are not considered nonconservative on that basis alone. Such issues require further analysis before application of these guidelines or any other action to address a perceived TS inadequacy.

3 CONSIDERATIONS FOR NCTS RESOLUTION

The following sections address the most significant considerations for the resolution of NCTS. Licensees should place the highest priority on the immediate verification of plant safety, conformance to the safety analysis, and compliance with regulatory requirements. Management

of interim and final corrective actions, documentation and communication recommendations should be given the appropriate priority as the situation develops.

3.1 IDENTIFICATION OF AN NCTS

If a potentially inadequate TS is identified, it is the responsibility of the licensee to determine if such an inadequacy presents an NCTS.

Most often, an NCTS is the result of a previously unidentified inconsistency with the existing safety analysis. In such cases, the requirements of the approved TS are inadequate. For example, a TS allowable value for actuation of an instrument channel that would fail to protect an assumption in the analysis in the UFSAR may have been in effect since the issuance of the original license, or may have been the result of analysis supporting a previous licensing action.

A TS can also become nonconservative due to a correction of an error in the analysis described in the UFSAR or TS bases. For example, revision of a fuel consumption calculation to correct an error can result in the TS required volume of fuel oil being insufficient for a diesel generator to perform its specified safety function.

A TS action can be nonconservative if it is discovered that the action will not provide the intended compensatory action described in the TS bases. For example, the TS bases state that a TS action to reduce reactor power to a specified level ensures that, in the case of an event, the Reactor Coolant System is not over pressurized. If it is discovered that the reactor power level reduction in the TS action is insufficient to prevent over pressurization, the TS action is nonconservative, even if the supporting analysis does not appear in the UFSAR.

A difference between the TS, the analyses in the UFSAR, or the description in the TS Bases in which the TS is more conservative than necessary (i.e., plant safety is protected, with excess margin, when following the TS) may not be addressed using licensee controls. TS compliance must be maintained and a less conservative TS limit may not be administratively applied.

3.2 VERIFICATION OF SPECIFIED SAFETY FUNCTIONS

Upon identification of an NCTS, immediate verification of plant safety and conformance with appropriate limits is necessary to ensure that the protection intended by the TS is provided.

For TSs that require operability of structures, systems, or components (SSCs), compliance with the requirements of an NCTS would not by itself constitute failure to meet a limiting condition for operation (LCO). However, because the NCTS is not adequate, SSC operability should be evaluated in accordance with licensee programs and procedures. If it is determined that the affected SSC is inoperable, the LCO is not met and the applicable required action(s) must be followed.

If the non-conservatism is due to inadequate TS limits, parameters, or requirements, the issue should be evaluated to determine if more restrictive values or requirements are necessary. Actions should be taken to ensure the plant satisfies these more restrictive values or requirements.

In either of the above situations, prompt action may be required to ensure plant safety and regulatory compliance. As necessary, licensees may institute administrative controls that instruct operators to maintain more restrictive parameter values or to take more conservative required actions. All such actions must be implemented without violating existing TS requirements or approved plant procedures.

3.3 NCTS ENTRY INTO THE CORRECTIVE ACTION PROCESS

Licensee processes need to be effectively applied to ensure that actions taken to address an identified NCTS provide visibility, traceability and review for continued effectiveness. Licensees should utilize the Corrective Action Process (CAP) to document identification of an NCTS, along with both short-term treatment (initial corrective measures, implementation of administrative controls, and evaluation of reporting requirements) and final resolution (approved licensing actions or licensing basis change). The determination of the cause and extent of condition of the NCTS, and the implementation of both interim and final corrective action should be completed and documented in accordance with licensee-specific processes.

Entering the condition into the CAP typically provides visibility to internal stakeholders, and gains management attention necessary to ensure plant safety and timely resolution of the discrepancy. Additionally, because CAP activities are closely monitored by NRC resident inspectors, CAP documentation can provide the basis for initial and follow-up communication with the NRC staff.

Initial actions taken to address the NCTS, which include determination of SSC operability, compliance with proposed or revised limits, and determination of notification requirements, should be appropriately documented. The establishment of administrative controls to preserve these initial actions can be driven by CAP processes. The determination of the cause and extent of condition of the NCTS, and the implementation of both interim and final corrective action should be completed and documented in accordance with licensee-specific processes.

3.4 EVALUATION OF 10 CFR 50.72 AND 50.73 AND OTHER REPORTING REQUIREMENTS

In and of itself, identification of an NCTS is not subject to the notification and reporting requirements of 10 CFR 50.72 and 10 CFR 50.73 or other reporting requirements. However, plant operation in compliance with an NCTS may have resulted in current or past operational conditions subject to these requirements. Examples include the following:

- A review of plant operation prompted by identification of an NCTS indicates operational conditions that are insufficient to support operability of an SSC required to be operable by a TS LCO. If an SSC was inoperable and the associated actions were not met, the plant condition or operation may have been a condition prohibited by the plant's TS, and therefore reportable under 10 CFR 50.73(a)(2)(i)(B). If the TS LCO requires an SSC to be operable, compliance with nonconservative surveillance requirements is not sufficient to consider the SSC operable and the LCO to have been met.
- A review of plant operation prompted by identification of an NCTS indicates that the plant has operated outside of the conditions required to ensure consistency with the safety analyses. Such a condition may be an unanalyzed condition that significantly degrades plant

safety, requiring NRC notification under 10 CFR 50.72(b)(3)(ii)(B) and a follow-up written report under 10 CFR 50.73 (a)(2)(ii)(B).

• A review of plant operation prompted by identification of an NCTS indicates that SSC inoperability could have prevented the fulfillment of a safety function, requiring NRC notification under 10 CFR 50.72(b)(3)(v) and a follow-up written report under 10 CFR 50.73 (a)(2)(v).

These examples are provided for illustrative purposes only, and the guidance is not intended to replace that in NUREG-1022, *Event Reporting Guidelines, 10 CFR 50.72 and 50.73* (Reference 2).

Note that in all cases it is the actual plant condition that is subject to notification and reporting considerations, not the deficiency in the TS.

If a 50.72 or 50.73 report is made for a condition directly caused by compliance with an NCTS, the licensee should include that information in the resulting notification or report.

3.5 IMPLEMENTATION OF ADMINISTRATIVE CONTROLS

As discussed in Section 3.2, on discovery of an NCTS, immediate verification of plant safety and conformance with appropriate limits must be accomplished to provide the protection intended by the TS.

Administrative controls, in the context of addressing an NCTS, are those follow-up measures taken, as necessary, by the licensee to ensure that the conditions established by initial compensatory actions are preserved.

Administrative control measures and other compensatory actions must be implemented in accordance with regulatory requirements. The fact that the changes are being implemented to appropriately address an NCTS does not relieve the licensee of other regulatory obligations.

Although not required, it is advisable to establish measures to ensure that NCTS are easily identified until they are resolved. For example, some licensees insert a colored page in the TS to identify the NCTS and the associated administrative controls.

If a TS is identified to be nonconservative with the plant in a Mode or other specified condition for which the TS LCO is not applicable (e.g., a TS LCO is applicable in Mode 1 and the plant is currently in Mode 5), administrative controls should be implemented prior to entering the condition or Mode in which the TS LCO is applicable.

Once any necessary administrative control measures are implemented, the safety concern will have been addressed, but the NCTS remains to be corrected. Until final corrective action is in place, licensees should ensure the administrative controls remain implemented and effective.

3.6 IMPLEMENTATION OF FINAL CORRECTIVE ACTION

Continued plant operation prior to final corrective action is predicated on implementation of any necessary administrative controls adequate to ensure safe plant operation; however, final

resolution of the NCTS cannot rely on administrative controls as a permanent solution. Final resolution of an NCTS typically requires a license amendment, revising the TS to reflect the safety analysis. Revision of the safety analysis to be consistent with the current TS may be an alternative resolution, provided that the requirements of 10 CFR 50.59 are satisfied. Other cases may require a combination of both approaches.

10 CFR 50 Appendix B, Criterion XVI, "Corrective Actions," establishes the requirements for prompt identification and correction of conditions adverse to quality. In addressing an NCTS, a licensee should determine the cause and take timely corrective action consistent with its quality assurance program. An appropriate timeline for correction must be commensurate with the safety significance of the issue. In determining priority, consideration should be given to the fact that compliance with the operating license would not necessarily assure plant safety.

Identification of an NCTS may have generic implications, in that the non-conservatism affects the applicable TS for multiple licensees. Accordingly, final resolution of the NCTS may involve a generic solution. Licensees may plan to use generic industry approaches (e.g., topical reports, TS Task Force travelers) to support final corrective actions. However, industry generic resolution involves the cooperative efforts of both the licensees and the NRC, and, pursuit of a generic approach does not change the fact that individual licensee's TS are deficient. Licensees should closely monitor generic resolution activities to ensure timely and effective resolution of the issue as it applies to their facility. Additionally, it should be recognized that as generic solutions evolve they may no longer satisfy the licensee-specific final corrective action. Resolution on a plant-specific basis should also be considered.

As with other planned licensing activities that will require NRC staff review, licensees should provide timely notification to the NRC Project Manager when an NCTS is identified and keep the PM informed of the schedule for final resolution. Effective communication as to the status of resolution efforts including documented justification of corrective action extensions can help avoid a perception that the licensee has not taken timely corrective action.

4 REFERENCES

- 1. Administrative Letter 98-10, *Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety*, December 29, 1998, ADAMS Accession No. ML031110108.
- 2.. NRC NUREG-1022, Event Reporting Guidelines, 10 CFR 50.72 and 50.73.