



NUCLEAR ENERGY INSTITUTE

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Ms. Suzanne C. Black, Deputy Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop O-8 E1
Washington, DC 20555-0001

SUBJECT: Unintended Technical Specification Actions

PROJECT NUMBER: 689

Dear Ms. Black:

Enclosed for your review is the white paper on Unintended Technical Specification Actions (UTSA) we discussed during the March 9 conference call. This paper was developed with extensive input from the NEI Licensing Action Task Force. We continue to believe this is important to the industry and that we can reach an agreement on an improved process to address obvious errors and inconsistencies in plant technical specifications.

I will be contacting you to arrange a meeting within the next few weeks to discuss the paper and address NRC comments. Until then please contact me (202-739-8080 or am@nei.org) or Mike Schoppman (202-739-8011 or mas@nei.org) if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Alex Marion".

Alexander Marion

Enclosure



1046

NEI White Paper

UNINTENDED TECHNICAL SPECIFICATION ACTIONS (UTSA)

I. Current Situation

Periodically, licensees find errors in their Technical Specifications that have no safety significance yet could affect plant operation until and unless corrected. The licensing process for correcting Tech Spec discrepancies does not differentiate between substantive safety-significant corrections and minor non-safety-significant corrections. The routine process for changing a Tech Spec is the same regardless of the nature of the change. As a result, both the NRC staff and power reactor licensees spend an inordinate amount of resources when faced with minor discrepancies that place the plant in a Limiting Condition for Operation (LCO) that could unnecessarily affect power operation. This type of discrepancy has been termed an “unintended technical specification action” (UTSA).¹ In such cases, the Notice of Enforcement Discretion (NOED) process and/or the emergency/exigent Tech Spec change process must be used to expedite a license amendment to preclude an unnecessary shutdown or to permit continued power ascension.

See Appendix A for an estimate of the impact of NOEDs or emergency/exigent Tech Spec changes on licensee resources.

II. UTSA Process Proposed by NEI

A. NEI Objective

The NEI Licensing Action Task Force (LATF) has outlined a process for resolving Tech Spec errors/discrepancies. It was developed during the course of several meetings between the NEI LATF and the NRC staff in 1998 and 1999.

The objective is to improve the efficiency (reduce the time, staffing, and cost) of processing formal Tech Spec amendments that meet the definition of a UTSA (see section II.C of this paper for the definition). This is consistent with the four NRC “performance goals,” i.e., maintain safety, increase public confidence, improve NRC effectiveness and efficiency, and reduce unnecessary regulatory burden.²

¹ Not intended for use in correcting minor TS discrepancies that can be processed as part of a routine license amendment package.

² NRC FY 2000-2005 Strategic Plan (draft), Vol. 2, Part 1, pg. 4.

B. NRC/NEI LATF Interactions

The value of an improved process for minimizing the use of resources to resolve non-safety-significant Tech Spec errors or discrepancies was first proposed by the NEI LATF at a meeting with the NRC staff on November 12, 1998. The concept was discussed and refined during follow-up NRC/NEI LATF meetings in 1998 (December 10) and 1999 (January 13, March 18, April 14, July 27, September 29, and December 1). The initial NEI "strawman" proposal was presented at the January 13, 1999, meeting. A revised NEI proposal was documented in an NEI letter to NRC (A. Marion to W. Reckley) dated June 22, 1999.

C. Description of the UTSA Concept

An "unintended technical specification action" (UTSA) is defined as an unnecessary plant evolution or other action that results from an erroneous Tech Spec requirement. The erroneous specification may arise from an editorial error, an administrative error, or a technical inconsistency between a Tech Spec requirement and the underlying intent of the requirement as defined in supporting documents submitted to or generated by the NRC, such as docketed information that establishes the design and licensing bases of the plant.

An "unnecessary plant evolution" could be, for example, a plant shutdown from normal operation (or the prevention of power ascension following a plant outage) in response to the literal interpretation of a Limiting Condition for Operation that inadvertently contains a minor (non-safety-significant) error or discrepancy.

The attributes of the UTSA concept are:

- Each licensee's Tech Specs would be revised to include a generic 3.0.X process for the disposition of UTSAs.
- Each licensee's proposal for incorporating the UTSA process in the Tech Specs would be published in the Federal Register for notice and comment, which would provide the public prior opportunity to request a public hearing. The UTSA process would satisfy the notice and comment requirements of the Atomic Energy Act.
- The generic UTSA Tech Spec would establish a process for the routine correction of non-safety-significant Tech Spec errors/discrepancies that would otherwise lead to unnecessary constraints on plant operation.

- The UTSA concept would apply to a limited, specific set of actions needed to establish timely Tech Spec conformance with the licensing basis. A sound basis for saying the Tech Spec is in error, and therefore a UTSA is needed, must appear in licensing basis documentation.
- Careful scope definition would be necessary at the front-end of each UTSA determination to ensure the process is used only for non-substantive, non-safety-significant cases.
- A UTSA would not involve a “significant hazards consideration” (10 CFR 50.92(c)).
- A UTSA would be incorporated in the Tech Specs through a formal license amendment using the normal public comment and notification process.
- A UTSA would avoid the more costly NOED and emergency/exigent Tech Spec change processes.
- A UTSA would have no adverse effect on public health and safety.
- A UTSA would permit a more efficient use of NRC and licensee resources for resolving minor Tech Spec discrepancies.
- A UTSA would not be used to alter plant systems, setpoints, or limits that affect a safety function.
- A relatively low enforcement threshold would accompany the UTSA process. If misused, a licensee would be subject to violation of the UTSA process, as well as the Tech Spec in question.
- There is a similar concept already in Surveillance Requirement (SR) 3.0.3 in the current set of Standard Technical Specifications (NUREGs 1430 through 1434). SR 3.0.3 establishes a process for missed surveillances wherein NRC has discretion to withhold enforcement action.
- A UTSA promptly acknowledges a Tech Spec error/discrepancy and provides for timely reporting to the NRC.

D. Pilot Plant Submittal

By letter dated August 30, 1999, TVA submitted a proposed change to the Sequoyah Units 1 & 2 Technical Specifications. The proposal added the definition of a UTSA to the Tech Spec “Definitions” section. It also added a new subsection (with corresponding Bases) to the Tech Spec “LCO Applicability” section describing a process to permit continued operation until the error/discrepancy can be corrected with a routine license amendment, rather than an NOED or an emergency/exigent amendment. The pilot plant submittal was noticed in the Federal Register Biweekly Notice dated October 6, 1999 (64 FR 54382-54383). See Appendix B for the UTSA Definition, LCO, and Bases. To respond to NRC comments presented at a December 1, 1999, NRC/NEI LATF meeting, the Appendix B draft of the LCO and Bases has been modified somewhat from that contained in the Sequoyah pilot-plant submittal.

III. NRC/NEI Public Meetings

The UTSA definition contained in the TVA pilot submittal is based on discussions held at several NRC/NEI LATF meetings in 1999. At a meeting on December 1, 1999, a representative from the NRC Office of the General Counsel (OGC) presented a range of legal comments. The purpose of this White Paper is to help resolve the OGC comments so that the NRC Office of Nuclear Reactor Regulation (NRR) can continue its review of the pilot submittal. The OGC comments, and NEI's responses, are contained in Appendix C.

IV. Options for Resolving NRC Comments

A. Resolve Legal Comments & Approve Pilot Plant Application

Meet with NRR/OGC on the specifics of OGC's comments to explore interpretations of Sections 182 & 189 of the Atomic Energy Act, and Sections 50.90-92 of 10 CFR.

The purpose of the UTSA process is to establish, within each nuclear plant's Operating License, a formal process under which a limited set of minor Tech Spec errors/discrepancies can be resolved in a routine, cost-effective manner. For each licensee, the incorporation of the UTSA process into the Technical Specifications would receive formal public notice, comment, and opportunity for hearing. Thereafter, each individual UTSA would also be subject to formal public notice, comment, and opportunity for hearing in a more routine fashion than currently permitted by the NOED or emergency/exigent Tech Spec change processes. A licensee would be required to notify NRC within 72 hours and to submit a formal license amendment request within 60 days of identifying a UTSA. A 72-hour reporting time limit is proposed to permit routine handling of UTSAs identified during evenings or weekends.

B. NRC Modify NOED Policy

Incorporate the UTSA concept into the NRC Inspection Manual (Part 9900: Technical Guidance – Operations – Notices of Enforcement Discretion, 06/29/99). Establish a pre-approved enforcement discretion process similar to Surveillance Requirement (SR) 3.0.3 in the Standard Technical Specifications (NUREGs 1430-1434).

C. NEI Seek Legislative Change to Atomic Energy Act

NEI would work with NRR/OGC to identify legislative changes to resolve OGC comments on the UTSA concept.

D. Status Quo

Continue the current practice of resolving minor TS discrepancies on a case-by-case basis using the NOED and/or the Emergency/Exigent TS change processes regardless of the safety significance of the discrepancy.

V. NEI Recommendations

- Option A (first choice)
- Option B (second choice)
- Continue discussions with NRR/OGC

APPENDIX A

IMPACT ON LICENSEE RESOURCES OF APPLYING THE NOED OR EXIGENT/EMERGENCY CHANGE PROCESSES TO A "UTSA" SITUATION

Using the NOED or emergency/exigent Tech Spec change processes for a minor, non-safety, "unintended technical specification action" (UTSA) is not consistent with the four NRC performance goals:

- maintain safety, protect the environment and the common defense and security;
- increase public confidence;
- make NRC activities and decisions more effective, efficient, and realistic; and
- reduce unnecessary regulatory burden

A rough estimate of the internal cost to a licensee of a "routine" license amendment is \$10000 - \$40000 (not including NRC review fees).

Attributes of a routine TS change:

- Research by a licensing engineer (file search; interaction with technical and operating staff)
- Produce initial draft of proposed license amendment (PLA)
- Licensing department peer review in preparation for onsite/offsite committee review
- Technical review by the appropriate line organization (e.g., Engineering).
- PLA review by onsite review committee
- PLA review by offsite review committee
- Incorporate comments by licensee reviewers (normally this can be done without the need for committee re-review)
- Senior management review and signature
- Licensee interaction with NRC staff during staff review/approval of PLA

The cost of an NOED or an emergency/exigent Tech Spec change is estimated to be approximately 2 to 4 times higher than the corresponding routine change. The attributes that drive cost up are:

- Significant expansion of high-cost management involvement
- Use of overtime (work off-shifts and weekends as necessary)
- Significant incentive to avoid shutdown and the consequent replacement power cost, when justified by safety considerations.
- Potential challenge to grid stability

APPENDIX B

PROPOSED "UTSA" DEFINITION, LCO, AND BASES

DEFINITION

An UNINTENDED TECHNICAL SPECIFICATION ACTION is an unnecessary plant evolution or other action that results from an erroneous Technical Specification requirement. The erroneous Technical Specification may arise from an editorial error, an administrative error, or a technical inconsistency between a Technical Specification requirement and the underlying intent of the requirement as defined in supporting documents submitted to or generated by the NRC. The intended Technical Specification requirement, as described in applicable licensing-basis documentation, is not contradicted by other documentation of which the licensee is aware.

LIMITING CONDITION FOR OPERATION (LCO)

If a condition is identified that would result in an UNINTENDED TECHNICAL SPECIFICATION ACTION, operation may continue and, for an interim period, the Technical Specification ACTION requirement(s) may be delayed provided that the correct "licensing basis action" is defined, implemented, and reported to NRC within 72 hours. The interim, corrected licensing basis action shall comply with the technical intent and underlying purpose of the affected Technical Specification as defined in supporting licensing-basis documents submitted to or generated by the NRC. An application to amend the Technical Specifications to formally correct the discrepancy shall be submitted to the NRC within 60 days following the identification of the erroneous Technical Specification. The application to correct the Technical Specification discrepancy shall present the basis for classifying the condition as an UNINTENDED TECHNICAL SPECIFICATION ACTION. The licensee may delay the ACTION requirement(s) of the Technical Specification and implement the interim, correct licensing basis action until NRC issues a decision on the licensee's formal proposal to correct the Technical Specification discrepancy.

BASES

Compliance with a Technical Specification involves compliance with the intent and the underlying purpose of the Technical Specification. Compliance is based, in part, on definitions in Section 1.0, on common definitions of words not defined in Section 1.0, and on the way sentences, clauses, and phrases are constructed. The technical intent and underlying purpose is established by the applicable Bases, any associated Safety Evaluations issued by the NRC, the Updated Final Safety

Analysis Report, or other documentation generated by either the licensee or the NRC.

Experience has demonstrated that there are cases in which an issued Technical Specification may be literally inconsistent with the technical intent and underlying purpose of the specification. For example, a Technical Specification table specifying valve positions may have mis-identified the position of a particular valve as “normally open” whereas the correct position, as specified in licensing basis documentation, is “normally closed.” The inconsistency may not be discovered until the resulting “non-compliance” would force an unnecessary plant shutdown or unnecessarily restrict plant startup. The normal regulatory processes, such as the NRC issuance of a Notice of Enforcement Discretion, or an amendment of the Technical Specifications using emergency or exigent provisions, may not be the most effective way of dealing with these circumstances, given that the discrepancies do not present a safety concern. The low significance of these discrepancies may be readily concluded because the intent of the affected Technical Specification requirement is supported by existing docketed information. As such, allowance is provided to permit a delay in implementing the Technical Specification ACTION requirement(s) as long as an interim, correct, licensing-basis action is promptly identified and implemented. Appropriate time intervals are provided to (1) inform NRC of the interim licensing-basis actions taken, (2) prepare and submit an application for license amendment to correct the Technical Specification discrepancy, and (3) receive the NRC staff’s decision on the proposed licensing amendment. During this process, the intent of the discrepant Technical Specification is satisfied.

A report and an application for a license amendment will be submitted to the NRC whenever the UNINTENDED TECHNICAL SPECIFICATION ACTION provision is exercised. The report shall be made within 72 hours, and an application for a license amendment shall be submitted within 60 days, following identification of an erroneous requirement that causes an UNINTENDED TECHNICAL SPECIFICATION ACTION and a decision to implement an interim, corrected, licensing-basis action. The licensee may rely on the licensing basis until the NRC has reached a decision on the licensee’s proposed correction.

It is important that this provision not be perceived as anything other than a mechanism to resolve minor errors/discrepancies that are occasionally found in Technical Specification requirements. The use of this provision is limited to the erroneous types of requirements encompassed by the DEFINITION of an UNINTENDED TECHNICAL SPECIFICATION ACTION. The use of the provision permits a licensee not to implement an erroneous Technical Specification. Thus, it is not an alternative to a Notice of Enforcement Discretion (NOED) or to a Technical Specification amendment submitted in accordance with 10 CFR 50.90 and 50.91. Improper use of this provision, either by classifying a condition as an

UNINTENDED TECHNICAL SPECIFICATION ACTION when the requirement is not in error, or by the failure to implement an appropriate interim licensing-basis requirement, constitutes a violation of the Technical Specification at issue as well as this Technical Specification.

APPENDIX C

NRR/OGC COMMENTS & NEI RESPONSES ON "UNINTENDED TECH SPEC ACTIONS" AND ASSOCIATED LEGAL REQUIREMENTS

I. LEGAL COMMENTS

NRC approval of an amendment is mandatory for any change in TS. A mechanism in the TS for permitting licensees to change TS requirements is not a valid substitute for NRC approval of change by way of an amendment.

NEI RESPONSE

The proposed concept for dealing with minor Tech Spec changes that can be classified as "unintended technical specification actions" is provided to permit continued operation pending NRC approval. The licensee must contact NRC within 72 hours to advise the NRC staff and obtain their concurrence.

The proposed concept is consistent with NRC performance goals established by the Commission:

- ***Maintain Safety***
Changes envisioned have no impact on plant safety
- ***Increase Public Confidence***
Demonstrates to the public that NRC is applying appropriate level of attention and resources on non-safety-significant matters
- ***Improve NRC Efficiency and Effectiveness***
- ***Reduce Unnecessary Regulatory Burden***
Reduces burden on NRC staff as well as licensees

II. KEY PROVISIONS OF THE ATOMIC ENERGY ACT

- Section 182

Requires that each application for a license shall state technical specifications. Such technical specifications shall be a part of any license issued.

NEI RESPONSE

Agreed

- Section 189

Requires that the Commission provide 30 days' notice and publish in Federal Register before issuing an operating license or an amendment to an operating license. Thirty days can be shortened where a "no significant hazards consideration" determination is made.

Requires that the Commission grant a hearing upon the request of any person whose interest may be affected by a proceeding for the granting, suspending, revoking, or amending of any license.

NEI RESPONSE

Subsection (2)(A) allows the Commission to issue, and make immediately effective, an amendment to an operating license if it determines in advance of a pending request for a hearing, or the completion of a hearing, that the amendment involves "no significant hazards consideration." In other words, the Commission may dispense with prior notice and publication upon determination that the amendment does not involve a significant hazards consideration. All errors/discrepancies that fall within the concept of an "unintended technical specification action" (UTSA) result in this determination. This is fundamental to the proposed UTSA concept. By definition, it must be clear that a UTSA does not involve a significant hazards consideration.

Subsequent routine amendments (to correct the UTSA) would be subject to routine Federal Register notice and comment requirements.

III. OGC CITATION OF REGULATORY REQUIREMENTS

- 10 CFR 50.90

States that whenever a holder of a license desires to amend the license, application for an amendment must be submitted to the NRC.

NEI RESPONSE

The proposed UTSA concept provides for the routine reporting and amending of minor Tech Spec errors/discrepancies. In other words, the proposed UTSA process would be an alternative to the resource intensive processes that are applied currently to all TS changes (i.e., the NOED process or the emergency/exigent TS change processes).

If an existing Tech Spec, as written, contains a minor error/discrepancy when compared to the licensing basis, and the licensing basis is verified as being correct, the UTSA process would return the Tech Spec to its original, approved intent. One could argue that the license is not, strictly speaking, being amended, but is being corrected. An amendment request would be required within 60 days of identifying a UTSA to formally document the

resolution of the error/discrepancy between the Tech Specs and the licensing basis.

- 10 CFR 50.91

Sets forth public comment and state notification provisions for amendment requests.

NEI RESPONSE

An initial determination of "no significant hazards consideration" within 72 hours of the licensee's identification of the Tech Spec error/ discrepancy should be adequate and sufficient to allow NRC to issue a description of the situation and interim authorization for the licensee to rely, for an interim period, on the licensing basis. This would allow for routine processing of the amendment request, including the normal provisions for public comment and state notification.

Notification of NRC would in most cases occur on the day of discovery. Seventy-two (72) hours is proposed as the reporting time limit to permit routine day-shift reporting on weekdays in cases when a UTSA is identified during evening/night shifts or on weekends.

- 10 CFR 50.92

Sets forth requirements for Commission issuance of amendments.

NEI RESPONSE

NEI interprets this section as having the flexibility to encompass a routine process for Tech Spec changes determined to have low safety significance and "no significant hazards consideration." In other words, there should be a defined class of "minor" amendments (UTSAs) that can be implemented using routine administrative procedures without need for invoking NOED or emergency/exigent procedures. Implementation details would need to be developed in concert with the NRC staff, which would include public comment on the initial incorporation of the UTSA process in the Technical Specifications.

- (Related - - 10 CFR 50.59)

Licensees cannot make changes to the facility as described in the FSAR that involve a change in TS.

The types of errors/discrepancies that fall within the framework of unintended TS actions do not involve changes to the facility as described in the FSAR. Therefore, the 50.59 process is not initiated.