July 17, 2008

TSTF-08-12
PROJ0753

Frederick D. Brown, Director
Division of Inspection and Regional Support
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: NRC Technical Specification Branch Positions Inconsistent with the Improved Standard Technical Specifications

Reference: Response to NRC Memorandum, Task Interface Agreement (TIA) 2008-002, "Evaluation of Implementation of Limiting Condition for Operation (LCO) 3.0.4.a, 'MODE Change Limitations,' at Palisades Nuclear Plant," dated May 9, 2008 (ADAMS Accession Number ML081300096)

Dear Mr. Brown:

The Technical Specifications Task Force (TSTF) is a joint industry organization sponsored by the Pressurized Water Reactor Owners Group (PWROG) and the Boiling Water Reactor Owners' Group (BWROG) that serves to manage and coordinate changes to the Improved Standard Technical Specifications (ISTS). The TSTF serves as the focal point for industry interaction with the Nuclear Regulatory Commission (NRC) on generic technical, regulatory, and compliance issues related to the ISTS and provides expertise to the Owners' Groups, the Nuclear Energy Institute (NEI), and other organizations on format, content and usage standards for the ISTS.

The PWROG and BWROG, with the support of the TSTF, are writing to express our concern with a number of NRC positions on Technical Specification issues that the industry believes are inconsistent with the ISTS format, content, and usage rules. Technical Specifications are the foundation of NRC oversight and of safe plant operation. Recent NRC positions that are inconsistent with the ISTS format, content, and usage rules have had a ripple effect throughout the industry, undermining the safe, consistent application of Technical Specifications. A discussion of those issues is given in Enclosure 1.

We are particularly concerned with the NRC position in the referenced Task Interface Agreement (TIA) response. The staff position put forward in the response, which is described as "NRC staff inspection guidance," is incorrect and inconsistent with the wording and intent of the

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ISTS. This staff position in the TIA response contradicts the fundamental rules of usage for the ISTS and published staff positions. The ISTS are a highly structured, internally consistent set of requirements based on formal definitions and usage rules that have been carefully crafted by the NRC and the industry for over 20 years. It is similar to a formal mathematical system with axioms and operators. Contradicting an ISTS definition or usage rule, even in a single instance, undermines the entire foundation of the ISTS. If not corrected, this NRC staff guidance in the TIA leaves licensees and licensed Operators unsure of the correct application of their Technical Specifications. A detailed discussion of this issue is included as Enclosure 2.

In order to start resolution of these issues, we request the following:

1. A meeting of Owners Group, NEI, and NRC management to discuss our understanding of the underlying causes of these issues and to present proposed solutions. Because these issues are having an immediate effect on licensees, we request that the meeting be held before the end of August 2008.

2. Withdrawal of the referenced TIA response and application of the LCO 3.0.4 requirements as written in the ISTS.

Please contact either one of us or Brian Mann at (301) 984-4400 or at brian.mann@excelservices.com.

Dennis Buschbaum
PWROG Chairman

Douglas W. Coleman
BWROG Chairman

Enclosure 1: Industry Concerns with the Capabilities of the NRC Technical Specification Branch
Enclosure 2: Industry Disagreement with the Response to TIA 2008-002

cc: Michael Case, Director of Division of Policy and Rulemaking
Thomas Blount, Deputy Director, Division of Policy and Rulemaking, NRC
Gary L. Shear, Deputy Director, Division of Reactor Projects, NRC
Bruce Boger, Associate Director for Operating Reactor Oversight and Licensing
Robert Elliott, Chief, Technical Specifications Branch, NRC
Tom Houghton, Deputy to the Chief Nuclear Officer, Nuclear Energy Institute
Alex Marion, Senior Director of Engineering, Nuclear Energy Institute

Industry Concerns with the Capabilities of the NRC Technical Specifications Branch

Technical Specifications are the foundation of NRC oversight and of safe plant operation. The industry has worked closely with the NRC since the early 1990's to develop, maintain, and implement the Improved Standard Technical Specifications (ISTS) in order to improve the safety focus and consistent application of these NRC requirements. The NRC and the industry created the ISTS to be a highly structured, internally consistent set of requirements based on carefully crafted formal definitions and usage rules. The NRC and the industry have worked to keep the ISTS consistent by correcting inconsistencies and making improvements as needed. The NRC and the industry have developed over 600 proposed changes to the ISTS, incorporated into four revisions to the Improved Standard Technical Specifications (ISTS) NUREGs (NUREG-1430 through -1434).

Application of the ISTS requires detailed training. Licensee operating staffs are typically provided at least 40 hours of classroom training on usage of the ISTS, supplemented by workbooks and examinations. However, informal discussions with the staff at the NRC Training Center in Chattanooga, Tennessee have indicated that the people responsible for training the NRC staff on the ISTS have had no formal training on the ISTS format, content, and usage rules on which to base their lessons.

The NRC relies on the Technical Specifications Branch (ITSB) to serve as the NRC internal experts on all issues and questions pertaining to ISTS. Personnel changes, recruiting issues, and transfer of experienced personnel have left ITSB understaffed and populated with mostly new staff. The ITSB staff members are apparently unfamiliar with the history and basis of the decisions made by the NRC and the industry in developing the ISTS. Without the benefit of the training program discussed above, the new staff members have few opportunities to learn the complex issues involved in the Technical Specifications. With the appropriate experience, knowledge and understanding of the history, basis, and issues associated with the Technical Specifications, the ITSB would be a tremendous resource to the NRC and the industry.

We request a meeting between industry and NRC management to discuss these issues and some potential solutions. For example, the industry is willing to open industry training on ISTS format, content, and usage rules to NRC technical and Training Center staff. We are also willing to share our extensive knowledge on the history and basis of the development of the ISTS with the NRC.

This situation has resulted in many recent questionable positions on Technical Specifications issues that have had a significant effect on the industry. A few examples are:

1. TIA 2008-001: On January 30, 2008 NRC Region IV sent a TIA request to NRR regarding the proposed use of LCO 3.0.5 at Arkansas Nuclear One (ADAMS Accession Number ML080300554). LCO 3.0.5 allows a plant to return inoperable equipment to service in order to perform testing. The staff position in the TIA request, supported by ITSB, is directly contradictory to the stated requirements in LCO 3.0.5.

2. Shutdown as an Alternative to Other Required Actions: In October, 2005, River Bend entered a Required Action due to a blown fuse and chose to not take the specified Required Action and instead follow the TS requirements that directed a shutdown. This

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is a standard industry practice and a practice that the NRC has specifically evaluated and encouraged in the past. It is consistent with the ITS format and usage rules. However, after the Resident Inspector conferred with ITSB, Entergy was issued a non-cited violation. The site denied the violation, but the NRC rejected Entergy's denial. The NRC's position is technically incorrect, encourages licensees to delay plant shutdown until all possible actions in a given TS are completed, and inconsistent with the ISTS. The NRC has also applied this incorrect interpretation to other licensee actions. When an LCO is not met, restoration is always an option to restore compliance with the LCO, whether explicitly stated or not, prior to entering the default Condition's shutdown track. This was a fundamental assumption by the NRC and industry authors of the ISTS.

3. Imposition of Incorrect Technical Specifications on Ultrasonic Flow Meters: The NRC has approved many license amendments to increase rated power by utilizing Ultrasonic Flow Meters (UFMs) to more accurately determine reactor power. Because the UFMs are not credited in the safety analysis, they are not included in the TS. However, in two recent cases (Crystal River and Davis-Besse) the NRC has insisted that the licensee include the UFMs in TS. Furthermore, the NRC has provided model TS to the licensee that are grossly inconsistent with the TS format, content, and usage rules. Repeated discussions with the NRC staff were unsuccessful and at least one licensee was forced to adopt these incorrect TS in order to obtain approval of a needed license amendment.

4. NRC Rejection of a Traveler to Correct a Part 21 Issue: The BWROG submitted a Traveler to address a Part 21 Notice regarding the potential to violate a Safety Limit during a specific event. The change required a revision to the Bases that could not be made under the Technical Specification Bases Control Program, and therefore required NRC approval. The NRC rejected the change on the premise that the Bases cannot be revised to alter the intent of the TS. This premise is incorrect. The ITSB did not understand that a licensee cannot revise the Bases to revise the intent of a TS, but the NRC can do so (in fact, the Technical Specifications Bases Control Program specifically requires such changes to be submitted for NRC approval). This lack of understanding has prevented the BWR plants from making the necessary changes to address the Part 21 Notice and has prevented the TSTF from addressing several issues that are more appropriately corrected through an NRC approved Bases change.

5. Inconsistencies in RIS 2005-20: In the development of the NRC's Operability Determination guidance, RIS 2005-20, the NRC and industry team that developed the document was very careful to use the terms "specified safety function" and "specified function" in a precise and consistent manner, as these phrases are the basis of operability determinations. These terms were carefully defined in the draft Inspection Manual chapter. Unfortunately, when the completed draft was distributed for internal NRC review, the NRC could not reach agreement on the definition of "specified safety function" within the available time and the decision was made by the ITSB lead author to simply use the existing definition in Generic Letter 91-18. However, as had been discussed by the team many times, the GL 91-18 definition was based on the pre-ISTS terms which reversed the terms. As a result, the definitions of "specified function" and "specified safety function" in RIS 2005-20 are the exact opposite of the intent used

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throughout in the remainder of the document. The impact of this change would have been apparent to individuals appropriately trained in ISTS format, content, and usage. The LATF informed the NRC of the error, but it has not been corrected. The LATF is pursuing a formal request to the NRC to revise the document.

The turn-over in ITSB staff has also resulted in reconsideration of long-held NRC positions without engaging the industry in order to understand the history and implications of the changes:

1. Incorporation of Tier 2 Requirements in Technical Specifications: Regulatory Guide 1.177 defines Tier 2 requirements as the identification of potentially high-risk configurations that could exist if equipment in addition to that associated with a proposed TS change were to be taken out of service simultaneously. Because of the huge scope of the potential configurations, the NRC practice is to utilize licensee commitments to address Tier 2 requirements and this practice has been used by the NRC in dozens of cases (EDG and instrumentation Completion Time extension amendments, the RITSTF initiatives, plant-specific permanent and one-time amendments, etc.) In April of this year in a teleconference with a licensee, a new ITSB reviewer objected to this long-standing approach and denied adoption of the change, even though it had been approved by the NRC using the Consolidated Line Item Improvement Process (CLIIP). The industry has tried to engage the NRC unsuccessfully to discuss the issue.

2. RITSTF Initiative 1 Concept: Risk Informed Technical Specifications (RITSTF) Initiative 1 revises Required Actions to allow a plant to stay within the Applicability of a Specification when the LCO is not met. Initiative 1 was accepted by the industry and NRC in 1999. The NRC has approved Initiative 1 CLIIP items for BWR plants and CE plants. Following transfer of the ITSB lead reviewer to NRO, the new reviewer raised questions regarding whether the entire concept of Initiative 1 is acceptable. The reviewer's objections were verbal, and references to supporting documents in statements made to the TSTF were not correct. The ITSB has been unwilling to meet with NEI and the TSTF to discuss these concerns, but NRC reviews of Initiative 1 amendments, Topical Reports, and Travelers are suspended. Requiring a Completion Time after which Hot Shutdown would be exited for Cold Shutdown is inconsistent with the premise of this Initiative and is directly contrary to the risk-informed basis for the Initiative that, in brief, maintains that risk interests are better served when more heat sink systems are available.

Industry Disagreement With The Response To TIA 2008-002

In the letter "Response to NRC Memorandum, Task Interface Agreement (TIA) 2008-002, 'Evaluation of Implementation of Limiting Condition For Operation (LCO) 3.0.4.a, 'MODE Change Limitations,' at Palisades Nuclear Plant," dated May 9, 2008 (ADAMS Accession Number ML081300096), the NRC issued a response to a Task Interface Agreement (TIA) request documenting the Staff position regarding the application of Technical Specification LCO 3.0.4. This TIA was issued as a result of inspection activities conducted at Palisades Nuclear Plant during the first quarter of 2008. The inspection report included a non-cited violation of Technical Specification (TS) 5.4.1 for the failure to have adequate procedure guidance for the general operating procedures for Mode transition to power operations. The NRC stated that the general plant operating procedure for Mode transition did not have adequate guidance to ensure the actions required by TS LCO 3.0.4 were complete prior to Mode transition. This NRC Staff guidance was issued due to an incident which occurred at Palisades Nuclear Plant when a radiation instrument was inoperable and the related TS ACTIONS allowed the instrument to be inoperable indefinitely provided the instrument was placed in the tripped condition within 7 days. It is noted that adequate protection is afforded by placing this instrument channel in trip within 7 days for an inoperability occurring at 100% rated thermal power, which is the limiting case for the transients and accidents (LOCA and rod ejection) that are mitigated by these radiation detectors (the mitigation actions include transitioning to the Control Room HVAC Emergency Mode, Containment Isolation Valve closure, and blocking automatic starts of the ECCS pump room sump pumps). Therefore, adequate protection would also be maintained following a Mode transition into this LCO's Applicability with an action to trip the instrument channel within 7 days after entering the LCO Applicability.

The NRC's stated position in the response to TIA 2008-002, was "…LCO 3.0.4a prohibits a Mode transition while not in compliance with the Required Action," and "…the associated action which allows operations for an unlimited time (in this case tripping a bi-stable) must be completed prior to mode ascension in order to apply TS 3.0.4a." This position is incorrect because it is in direct conflict with LCO 3.0.1 and LCO 3.0.2 which both state that Technical Specification LCOs and related Required Actions are not required until the Technical Specification is Applicable. TS LCO 3.0.4 does not govern the performance of Technical Specification ACTIONS but rather provides guidance on when a plant transition can be made when an LCO is not met. LCO 3.0.4 is not an exception to LCO 3.0.1 or LCO 3.0.2. Performance of Required Actions is governed by LCO 3.0.2 and proper application of Completion Times is governed by Technical Specification Section 1.3, "Completion Times."

The LCO and Surveillance Use and Application rules in Section 3.0 of the Technical Specifications provide the foundation of all requirements in the ISTS. Stated simply:

1. LCO 3.0.1 states that LCOs must be met when in the Applicability of the Specification.

2. LCO 3.0.2 states that when an LCO is not met, complete the Required Actions within the stated Completion Time or until the LCO is met or the Applicability is exited.

3. LCO 3.0.4 states that in order to enter the Applicability when the LCO is not met, certain conditions must be met. The LCO 3.0.4.a condition is that the Actions to be entered must allow operation in the Applicability for an unlimited period of time.

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4. When LCO 3.0.4.a is used, the plant enters the Applicability, declares the LCO not met, and must complete the applicable Required Actions within the stated Completion Time.

Contrary to these fundamental rules of usage, the stated staff position is that when using LCO 3.0.4.a, the LCO must be declared not met and the Required Actions must be completed before entering the Applicability without regard for the Completion Times. This position contradicts LCO 3.0.1, LCO 3.0.2, and LCO 3.0.4. It is also contrary to statements in LCO 3.0.3 (i.e., the plant must shutdown until the Applicability of the LCO is not met), the Section 1.1 definition of "ACTIONS", and Section 1.3, "Completion Times." This position undermines the entire foundation of the ISTS.

The sole basis for the NRC Staff guidance in TIA 2008-002 is the use of the word "when" in the LCO 3.0.4.a statement:

> "When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
>
> a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;" (emphasis added)

The TIA acknowledges that the phrase "to be entered" supports the industry's position, but chooses to ignore this plain interpretation and instead justifies their position by joining separated sentences out of context from the ISTS Bases. The TIA quotes, "Compliance with Required Actions that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. … Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made in accordance with the provisions of the Required Actions." These Bases statements are ambiguous regarding whether the Actions must be taken before or after entering the Applicability. However, if the omitted sentence is added, the Bases clearly support the LCO 3.0.4 statement that Actions are entered after entering the Applicability. The entire Bases states, "Compliance with Required Actions that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. *This is without regard to the status of the unit before or after the MODE change.* Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made in accordance with the provisions of the Required Actions." (Emphasis added). The TIA response ignores the plain meaning of LCO 3.0.4 and omits Bases statements that do not support the staff's proposed interpretation.

In addition, the TIA does not address the inconsistency of the staff guidance with the remainder of the ISTS usage rules. It does not address the conflicts created with LCO 3.0.1, LCO 3.0.2, LCO 3.0.3, or Section 1.3 even though the licensee had provided documentation that brought these conflicts to the NRC's attention.

The correct intent is described in the Bases of LCO 3.0.4 and is consistent with other regulatory documents, such as Generic Letter (GL) 87-09, "Sections 3.0 and 4.0 of the Standard Technical

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Specifications (STS) on the Applicability of the Limiting Conditions for Operation and Surveillance Requirements," dated June 4, 1987. The Generic Letter stated that Specification 3.0.4 unduly restricts facility operation when conformance to the Action Requirements provides an acceptable level of safety for continued operation. GL 87-09 replaced the common note, "The provisions of Specification 3.0.4 are not applicable," with a global exemption (LCO 3.0.4.a) for actions that allowed operation in the TS Applicability for an unlimited period of time. The NRC's stated position in the response to TIA 2008-002 was never previously required by the NRC. This position is not based on any wording or implied statements in the Technical Specifications, the Bases, or in any other regulatory document.

Based on the justification given above, we urge the NRC to withdraw the referenced TIA response and to apply the LCO 3.0.4 requirements as written in the ISTS.