March 9, 2009

MEMORANDUM TO: Robert B. Elliott, Chief
Technical Specifications Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Abraham Marrero, Reactor Systems Engineer ***/RA/***
Technical Specifications Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JANUARY 28 AND 29, 2009 CATEGORY 2 MEETING WITH THE TSTF TO DISCUSS APPROPRIATE INTERPRETATION OF TECHNICAL SPECIFICATIONS

On January 28 and 29, 2009, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff, and members of the Technical Specifications Task Force (TSTF) at Excel Services Corporation, 11921 Rockville Pike, Rockville, MD 20852. The purpose of the meeting was to hold a workshop to discuss compliance with TS and use of Bases by evaluating case studies of past NRC licensing actions which addressed TS misinterpretations, violations, and misguidance. The workshop generally followed the agenda proposed in a January 16, 2009 Public Meeting Notice (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090080022) as amended by the meeting participants.

Enclosure 1 contains the meeting minutes, enclosure 2 contains the attendee list, and enclosure 3 is a TSTF address list. Enclosure 4 is a handout presented by the TSTF. Enclosures 5 through 14 were presented by the TSTF and contain case studies 1 through 10, respectively.

Enclosures:
As stated

CONTACT: Abraham Marrero, NRR/DIRS
301-415-8531
AXM14@nrc.gov

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OFFICE	ITSB:DIRS	ITSB:DIRS	ITSB:DIRS	ITSB:DIRS
NAME	VCusumano	AMarrero	MHamm	RElliott
DATE	03/09/09	03/09/09	03/09/09	03/09/09

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Meeting Minutes

A public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff, and members of the Technical Specifications Task Force (TSTF) on January 28 and 29, 2009. The purpose of the workshop was to promote a common understanding of the appropriate interpretation of TS and use of Bases by evaluating Case Studies of past events which have resulted from misinterpretations, violations, or inadequate implementation guidance. The workshop generally followed the agenda proposed in a January 16, 2009 Public Meeting Notice (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090080022) as amended by the meeting participants. The following is a brief summary of the meeting.

NRC staff, members of the Technical Specifications Task Force (TSTF), and members of the public were introduced. NRC and the TSTF agreed that the general purpose of the meeting was to have an open discussion regarding consistent interpretation of the application of Section 3.0 Limiting Condition for Operation (LCO) Applicability and Section 3.0 SR Applicability Technical Specifications (TS) by licensed operators, and resident inspectors. Case studies were used to focus discussion on specific issues. The discussions of each case study could result in one of four outcomes: 1) agreement on the appropriate interpretation of the TS, 2) identification of the need for additional guidance, 3) identification of the need for additional TS clarification, or 4) the submittal of a TSTF Traveler to address issues identified with a particular section of the TS.

The TSTF presented a slide show on Industry approach on the structure and use of Technical Specifications (Enclosure 3).

<u>Case Study 1, “Structure of TS for Ultrasonic Flow Meters” (Enclosure 4)</u>: The NRC staff responded to the TSTF concern that the NRC staff required two Babcock and Wilcox (B&W) plants to adopt new TS for Measurement Uncertainty Recapture (MUR) license amendments whereas MUR amendments for the other pressurized water reactor designs and boiling water reactor designs did not require the addition of TS. Based on the workshop discussion, the TSTF now understands that the licensees for these plants requested TS changes because physical parameters of their steam generator designs dictated TS changes must be made to ensure operation after implementation of the MUR license amendment will be within plant analyses. The NRC staff noted there are small variations between the two plant TS; however, the new requirements will ensure safe operation of the facilities. The TSTF indicated that it may create a Traveler for NUREG-1430 B&W STS.

<u>Case Study 2: “Catawba Emergency TS Change” (Enclosure 5)</u>: The issue in this case study concerned an improved Standard TS (iSTS) plant which had information in the Bases that redefined the LCO requirements for what constituted operability for the Nuclear Service Water System. The NRC and TSTF were in agreement that the Bases should establish a basis for operability of a system as being consistent with the TS definition of operability to provide the specified safety function; as long as, the Bases are in agreement with the UFSAR and would not require a change in the TS incorporated in the license. The NRC and TSTF also agreed that, the term “loops” in the Bases needed to be reconciled with the term “trains” in the LCO. The attendees also agreed that any additional generic conclusions regarding this particular case study would be difficult to construct because the system in question had an unusual plant-specific design with dual plants sharing both trains of the Nuclear Service Water (NSWS) system.

ENCLOSURE

Regarding the need for the NRC staff to review the TS Bases, the NRC and TSTF agreed that plant-specific Bases need to be submitted for review in order for the NRC staff to conduct an adequate review for license amendment requests (LARs), including TS conversions to improved STS (NUREGs-1430-1434). The TSTF seeks further dialogue to clarify the regulatory status of TS Bases (i.e. reviewed, approved, or necessary reference) once a license amendment is issued.

Case Study 3: "Rejection of TSTF-495, Bases Change to Address GE Part 21 SC05-03" (Enclosure 6): The TSTF disagreed with a statement made in the letter issued by the NRC staff in its rejection of TSTF 495. The TSTF stated that the NRC does have authority to approve Generic Bases Changes via Traveler. The NRC staff stated that it had technical reasons for rejecting the TSTF-495 Traveler, and that the reasons were stated in the safety evaluation that was attached to the NRC's rejection letter. The safety evaluation clearly states that TSTF-495 was not rejected because the request was for a Bases change. In fact, the NRC staff agreed that the NRC does have authority to review and approve a Bases change to the STS and for a plant-specific Bases change. The NRC staff stated that the concern with TSTF-495 was that the TSTF was attempting to change the meaning of the TS by changing the Bases. Specifically, the TSTF sought to take an exception to complying with a plant Safety Limit in the Bases. The NRC staff stated that the Bases could not be used to alter the requirements of TS. The NRC staff noted that Safety Limits are expressly required to be included in TS per 10CFR50.36. The TSTF disagreed, stating their belief that the NRC could approve a Bases change that altered the meaning of TS, that the approved Bases change could then be applied by a licensee without submitting the plant-specific Bases change to the NRC for prior review and approval. The NRC disagreed, stating that such an action would violate 10 CFR 50.59 because the action would result in a change to the TS incorporated into the license, and thus would require a license amendment. The NRC staff further stated that a Bases change Traveler could not be used to modify plant-specific TS since this action would bypass the TS Bases Control Program requirements to submit such changes to the NRC under 50.90.

Case Study 4: "Do we need to clarify what is meant by 'Operational Convenience'" (Enclosure 7): The TSTF stated that the term "Operational Convenience" appears numerous times in the Bases of the iSTS; however, they believe the meaning of this term is unclear to operators. The TSTF and NRC were generally in agreement that the STS could be revised to provide more clarification on this term. The TSTF recommended that the NRC and the TSTF develop a definition for operational convenience in order to eliminate this area of ambiguity and to add certainty to the regulatory process. The NRC agreed to further study the issue and determine if any further clarification would provide a needed link with the ROP. The TSTF will create a Traveler, which addresses the issue for NRC review.

Case Study 5: "Palisades use of LCO 3.0.4" (Enclosure 8): The TSTF and NRC are generally in agreement that LCO 3.0.4 was written to provide requirements for Mode Transitions with equipment inoperable. However, the TSTF disagrees with the NRC regarding the application of LCO 3.0.4.a described in Task Interface Agreement (TIA) 2008-002. LCO 3.0.4.a states that when an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made 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. In TIA 2008-002, the NRC staff took the position that in order to apply LCO 3.0.4.a, a licensee must

complete all required actions for the mode to be entered prior to transitioning into the mode. The TSTF disagreed with the NRC interpretation of LCO 3.0.4.a, and stated that they believed that the staff's interpretation constituted a new staff position. The NRC staff stated that the basis for their position is that the Bases of the STS state that "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." The NRC staff stated that the basis for allowing the change in mode without any assessment of the current plant condition is that the licensee provides an acceptable level of safety by completing the required actions. The acceptable level of safety is not provided simply by entering the ACTIONS. If the licensee wishes to change mode and then complete the REQUIRED ACTIONS, the NRC staff believes that 3.0.4.b would be the appropriate LCO to invoke. The TSTF stated that the staff's position is inconsistent with LCOs 3.0.1 and 3.0.2 which state that LCOs and REQUIRED ACTIONS are not required until the Applicability is entered. The NRC and TSTF were generally in agreement that further clarification of TS 3.0.4 may be needed. The NRC agreed to further study the issue and determine if clarification or further guidance is needed in relation to TS 3.0.4. The attendees agreed that a discussion regarding LCO 3.0.4 would be deferred until NRC staff can conduct further research. The discussion was deferred until the public meeting on 2/24/09.

Case Study 6: "ANO Use of LCO 3.0.5" (Enclosure 9): The TSTF and NRC staff can agree that LCO 3.0.5 was written to provide requirements for the situation that arises when equipment must be restored to service in order to demonstrate operability of equipment before returning inoperable equipment to service. LCO 3.0.5 states that "the sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g., not to comply with the applicable Required Action(s)) to allow performance of required testing to demonstrate: a. The OPERABILITY of the equipment being returned to service or b. The OPERABILITY of other equipment." The TSTF disagrees with the NRC TIA 2008-001. The NRC staff stated LCO 3.0.5 is only to be used when it is not possible to comply with TS and perform testing to demonstrate operability at the same time. Two specific examples are provided in the BASES that support the staff's position. The example related to LCO 3.0.5.a applies to this case study; "An example is reopening a containment isolation valve that has been closed to comply with Required Actions and must be reopened to perform the required testing." The NRC staff further stated that that the intent of LCO 3.0.5 was not followed and the licensee for ANO did not comply with their TS when LCO 3.0.5 was used for operational convenience rather than comply with their TS while performing testing. The TSTF suggested that clarification of LCO 3.0.5 will prevent the requirements from being misinterpreted. The TSTF agreed to develop a Traveler which would modify the LCO 3.0.5 Bases (and, if necessary, the Specification) to state that LCO 3.0.5 shall not be used if there are other alternatives that would allow the required testing while maintaining compliance with Actions. The NRC staff agreed that some method of clarification is needed. The TSTF took an action to draft a NUREG Bases update that would allow entry into 3.0.5 only if no other alternative is available. Comment was made and agreed that a RIS may also be promulgated should a Bases update be agreed and implemented.

LCO 3.0.6, LCO 3.0.7 and LCO 3.0.8 Case Studies

The TSTF and NRC reviewed LCO 3.0.6, 3.0.7, and 3.0.8. Neither the TSTF nor NRC identified any case studies that suggested further discussion regarding LCOs 3.0.6, 3.0.7, or 3.0.8 was necessary.

Case Study 7: "Turkey Point NCV on TS 3/4.4.10, 'Structural Integrity'" (Enclosure 10): The TSTF stated that they don't agree with the assessment that the Actions of TS 3/4.4.10 could not be met. TS 3/4.4.10 requires the structural integrity of ASME Code Class 1, 2 and 3 components shall be maintained in accordance with Specification 4.4.10. The case study is about a licensee who failed to either isolate a flawed ASME Code Class 1 component or place the plant in condition where the TS did not apply. Power operations continued challenging the integrity of the reactor coolant system. The TSTF stated that they believed the plant should have voluntarily shut down. The NRC agreed that the licensee could have followed the supplied action and entry into LCO 3.0.3 for that reason was not required under a strict reading of the TS.

Pending Regulatory Decisions: The TSTF asked if there was a way NRC could solicit input on pending NRC regulatory decisions regarding licensee specific issues. The NRC stated that it could not solicit input on pending NRC regulatory decisions and only the licensee can determine if and when non-licensee parties can be apprised of pending licensee specific regulatory decisions.

SR 3.0.2
The TSTF and NRC reviewed SR 3.0.2. Neither the TSTF nor NRC desired further discussion regarding LCO 3.0.2.

Case Study 8: "Applicability of SR 3.0.3 to SRs that Have Never Been Performed" (Enclosure 11). The TSTF presented the case study. The NRC stated that they issued a TIA response on January 26 regarding Pilgrim's application of SR 3.0.3 to an SR that has never been performed. The TIA states that the NRC considers "missed" and "never performed" to be different and SR 3.0.3 cannot be applied to SRs that have never been performed. The TSTF did not agree with this position. The NRC stated that when a licensee discovers a situation in which an SR has never been performed, they should contact the NRC to pursue any required relief to allow performance of the SR. The NRC also stated that they are reviewing the proposed change in TSTF-512 that addresses this issue and that it appears to be a reasonable framework for resolving when SR 3.0.3 could be applied to SRs that have never been performed.

Case Study 9: "River Bend Shutdown as an Alternative to Other Actions" (Enclosure 12). The TSTF made the presentation and stated that it believed the licensee operated in compliance with its TS, as written. The TSTF stated that it believes that licensed plant operators are not required to follow all Require Actions in TS if, in using their best judgment, they decide to enter the default condition (i.e., shutdown the plant). Although the staff agreed with the TSTF's position during the workshop, additional review by the staff following the meeting caused the staff to reverse itself and issue an e-mail (Follow up item 1) to the TSTF stating that the staff believes that the licensee must follow all REQUIRED ACTIONS for all CONDITIONS that are applicable. Shutting down the plant does not remove the requirement for compliance with the TS. It was agreed after the TSTF reviewed the NRC's e-mail to continue discussion on this topic at the February 24, 2009 public meeting.

Case Study 10: "Perry Inability to follow RHR-SDC Required Action" (Enclosure 13). The TSTF made the presentation and requested clarification regarding rejection of Condition B in TS ACTIONS. The NRC stated Condition B is not applicable since it does not address the issue or require restoration of the HR system (as per TS 3.9 PWR TS). NRC further stated that the licensee was asked to add the requirement to restore RHR as an ACTION and this was refused.

The TSTF stated that the Writers Guide implies that restoration is always an option, and should not be written in the Technical Specification. The NRC pointed out that this would allow indefinite operation with RHR inoperable and asks if that is the intent. The TSTF agreed that the requirement for RHR restoration should be included in the spec, and there is no area of generic disagreement with NRC Staff. The TSTF took an action to draft a traveler on this for other BWR's with similar issues.

Group discussion returned to Case Study 9 "River Bend". NRC asked the group if they felt that the applicable spec was "broken" from a use and application point of view and needed to be fixed. After a brief discussion, it was agreed that the better way to address the use issue in this case study is to define or describe "Operational Convenience". This was a previously agreed/taken action item.

The attendees discussed methods to best to conduct the RIC Session covering the workshop topics. The NRC staff stated that the RIC session should present the findings of this workshop rather than be an open workshop during the RIC due to time constraints. A "Webinar" capability is also being investigated to broaden the attendance.

The NRC and TSTF were in agreement that the findings of the workshop (where there is a consensus) should be presented by RIC Moderator Rob Elliott. Should any differences between the NRC staff and Industry still exist on issues, the industry position will be presented by an TSTF representative.

Concerns were raised by the NRC staff and TSTF that a broad-reaching Q&A session may divert the short available time to side issues during the RIC, and as much as possible non-related issues will be handled outside the RIC forum.

The TSTF stated that the session title needs to describe the presentation vs workshop nature of the session to manage expectations of attendees.

In preparation for RIC presentation – the Case Studies were reviewed again to quickly determine the state of agreements and actions, and what if anything should be presented to the RIC on each.

For Case Study 1, the TSTF agreed to develop a traveler to address stated concerns and that there is no generic message on this issue. It is further suggested that this issue be omitted from the RIC presentation.

For Case Study 2, the TSTF agreed to present to Owners Groups a need of understanding that descriptions of operability in Bases must address the definition of operability, and that terminologies must be consistent ("loop" vs "train").

For Case Study 3, A general statement for Owners Groups is that Bases changes must be conducted via a 50.59 process and possibly an amendment process even if the proposed changes are already reflected in a staff-reviewed NUREG.

For Case Study 4, the TSTF agreed to draft a Traveler for the NRC staff review that will attempt to define or provide guidance and examples that would describe the term "Operational

Convenience".

For Case Study 5, The NRC and TSTF agreed that further study is needed and that a future Public meeting will be held concerning Palisades use of TS 3.0.4.

For Case Study 6, The TSTF agreed to draft a Traveler that will attempt to clarify the mutual agreement that TS 3.0.5 should only be used if no other alternatives are available.

For Case Studies 7 and 10, The NRC staff and TSTF agreed that no generic issues would need to be presented at the RIC

For Case Study 8, There is a recently-submitted Traveler on this topic pending NRC staff review. For now, the NRC staff holds that "not met" and "never performed" are not equivalent, and licensees should contact NRC on a case-by-case basis for SR's never met. TSTF presented a framework that may allow for equivalency between the two terms in TS.

For Case Study 9, Both the NRC and TSTF agree that current generic TS usage allows all options in the ACTIONS table to be used, including the default to 3.0.3. without defending specific actions of the licensee in question. However, as noted above, the staff reversed itself on this after further investigation. The topic was added to the agenda for a public meeting on February 24, 2009.

Conclusion

The NRC and TSTF concluded that the Workshop was beneficial and should be held on a more frequent basis. Follow on discussions on Case Studies 5, 8, and 9 were conducted in a public meeting on February 24, 2009.

A member of the public (Andrew Johnson – Mitsubishi Nuclear) was invited to speak, and he reiterated the comments that the meeting was useful, and specifically indicated that it would be helpful in the drafting of Technical Specifications for new plants under development.

Follow up item 1

Following the Technical Specifications (TS) workshop on Wed-Thur Jan 28-29, 2009, the TS Branch conducted a further internal review of the particulars of Case Study 9 and the applicable TS.

This review leads us to clarify the opinions presented by the Branch at the Workshop.

At the workshop, it was characterized that for an entry into an LCO, the licensee has 3 options:

1. repair the equipment before required action must be taken, or
2. take required actions, or
3. exit the mode of applicability

While these are viable courses of action, the following amplifying TS sections need to be considered:

LCO 3.0.2
Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

TS 1.3 Completion Times
"Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.

If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time.."

Generically, based on the above TS requirement and usage rules, the staff position is that upon discovery of a failure to meet an LCO, the Required Actions of all applicable associated Conditions apply and continue to apply even when failure to complete Required Actions within the specified completion time drives the licensee into a Condition to exit the mode of applicability (e.g. be in Mode 3 in 12 hours). This is due to the fact that the Condition(s) that cause the LCO to be not met, still exists regardless of failure to perform required actions. Thus, Required Action Completion Times may dictate that a licensee must comply with Required Actions to place the plant in a safe condition while simultaneously following a requirement to shutdown the plant..

The licensee in Case Study 9 failed to take the Required Action A1 (shutdown one recirculation loop) for LCO 3.4.1 Condition A within the 2 hour completion time. Instead they entered Action D1 ("be in Mode 3") for LCO 3.4.1 Condition D ("Required Actions and associated Completion Times of Conditions A. B. or C not met"). For these TS requirements, the licensee was <u>still</u> in Condition A due to a flow mismatch, and required to carry out the associated Action. An alternative would be to immediately request a relaxation of this time from the NRC.