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Do not include proprietary materials.*

DATE OF MEETING

05/09/2000

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

Docket Number(s) N/A

Plant/Facility Name N/A

TAC Number(s) (if available) N/A

Reference Meeting Notice Meeting with NEI Technical Specifications Task Force

Purpose of Meeting
(copy from meeting notice) To discuss proposed Standard Technical Specification

changes and status/comments on Revision 2 of STS.

NAME OF PERSON WHO ISSUED MEETING NOTICE

Robert L. Dennig

TITLE

Section Chief

OFFICE

Office of Nuclear Reactor Regulation

DIVISION

Division of Regulatory Improvement Programs (DRIP)

BRANCH

Technical Specifications Branch

Distribution of this form and attachments:

Docket File/Central File

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Integrated Industry / NRC Priority List for Travelers to be Incorporated into Revision 2

(Includes all Active Travelers that are not Approved, Withdrawn, or Rejected with Rejection Accepted)

Traveler #	Short Title	Traveler Status	Responsibility for Next Action/ Target Date		NRC Contact/ Date Sent to NRC	Industry Contact
TSTF-16, Rev. 3	Add Action to LCO 3.8.9 to require entry into LCO 3.0.3 when there is a loss of function	Under TSTF Consideration	TSTF	Unassigned	Tomlinson, Ed With TSTF	Pontious, Harry
TSTF-207, Rev. 5	Completion Time for Restoration of Various Excessive Leakage Rates	NRC Action Pending	NRC	Unassigned	Giardina, Bob 5/5/00	Pontious, Harry
TSTF-306, Rev. 1	Add Action to LCO 3.3.6.1 to give option to isolate the penetration	NRC Action Pending	NRC	Unassigned	Schulten, Carl 3/13/00	Pontious, Harry
TSTF-332, Rev. 0	ECCS Response Time Testing	NRC Action Pending	NRC	Unassigned	Schulten, Carl 4/30/99	Pontious, Harry
TSTF-334, Rev. 1	Relaxed Surveillance Frequency for Excess Flow Check Valve Testing	Under TSTF Consideration	TSTF	Unassigned	Giardina, Bob With TSTF	Pontious, Harry
TSTF-342, Rev. 1	Revise SR 3.3.1.5, Calibration, and associated requirements for power range channels	NRC Action Pending	NRC	Unassigned	Schulten, Carl 3/13/00	Clarkson, Noel
TSTF-360, Rev. 0	DC Electrical Rewrite	NRC Action Pending	NRC	Unassigned	Tomlinson, Ed 2/25/00	Clarkson, Noel
TSTF-361, Rev. 1	Allow standby SDC/RHR/DHR loop to inoperable to support testing	NRC Action Pending	NRC	Unassigned	Tjader, Bob 5/5/00	Weber, Tom

Number: 8



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 27, 2000

MEMORANDUM TO: William D. Beckner, Chief
Technical Specifications Branch
Division of Regulatory Improvement Programs

FROM: Jared S. Wermiel, Chief
Reactor Systems Branch
Division of Systems, Safety and Analysis

SUBJECT: TSTF-349 THE REMOVAL OF ALL REQUIRED SHUT DOWN COOLING
LOOPS WHILE IN REDUCED INVENTORY FOR SWAPPING LOOPS
WHILE MEETING CERTAIN PROVISIONS (TAC NO. MA8395)

REFERENCE: Memorandum from W. D. Beckner, U. S. Nuclear Regulatory
Commission, to J. S. Wermiel, U. S. Nuclear Regulatory Commission,
Subject, "REQUEST FOR TECHNICAL REVIEW OF TSTF-349," dated
March 10, 2000.

By memorandum, dated March 10, 2000, you requested that the Reactor Systems Branch review the Industry/TSTF Standard Technical Specification Change Traveler associated with TSTF-349. In TSTF-349 the industry requests that each of the three pressurized water reactor (PWR) standard technical specifications be modified to include a note that permits all of the required shutdown cooling (SDC) pumps be de-energized for up to 15 minutes when swapping from one train to another provided three provisions are met. The TS is applicable in the refueling mode with low water level. The three provisions are that the core outlet temperature be maintained greater than ten degrees below saturation, no operations are permitted that would cause a reduction in reactor coolant system boron concentration, and no draining operations to further reduce reactor coolant system water level are permitted.

The staff has reviewed the request and concluded that permitting all pumps to be removed for a short period of time to facilitate switching from one train to another is reasonable given the provisions provided in the note. The note requires that for the short time the pumps can be de-energized the operators monitor and restrict the magnitude of the heat-up. Additionally, the note restricts operations that could adversely affect boron concentration or loss of RCS inventory. Although the note permits the pumps to be de-energized for a short period of time, the pumps will still be available for mitigating any unforeseen transients.

Provision (a) of the note requires that the, "core outlet temperature is maintained > 10 degrees F below saturation temperature." However, the entire provision is bracketed, implying that it is a plant specific value. This is not a plant specific value or consideration. We feel that it is important for the operators, when applying this note, to monitor core outlet

Contact:
Christopher P. Jackson, DSSA/SRXB
415-2947

temperature and control the temperature below the saturation temperature. As a result, the SRXB recommends that TSTF-349 be accepted provided the brackets around provision (a) be removed. We have discussed this approach with T. R. Tjader or your staff and he approves of this approach.

This completes SRXB action for TAC No. MA8395.

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3/27/00

DOCUMENT NAME: G:\SRXB\TAC MA8295 TSTF349 RHR WITH LOW LEVEL.WPD
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 15, 2000

MEMORANDUM TO: William D. Beckner, Chief
Technical Specifications Branch
Division of Regulatory Improvement Programs

FROM: Jared S. Wermiel, Chief *Jared S. Wermiel*
Reactor Systems Branch
Division of Systems, Safety and Analysis

SUBJECT: TSTF-361 ALLOWANCE FOR THE REMOVAL OF ONE OF TWO
REQUIRED SHUT DOWN COOLING LOOPS WHILE IN REDUCED
INVENTORY FOR SURVEILLANCE TESTING (TAC No. MA8394)

REFERENCE: Memorandum from W. D. Beckner, U. S. Nuclear Regulatory
Commission, to J. S. Wermiel, U. S. Nuclear Regulatory Commission,
Subject, "REQUEST FOR TECHNICAL REVIEW OF TSTF-361" dated
February 16, 2000.

By memorandum, dated February 16, 2000, you requested that the Reactor Systems Branch review the Industry/TSTF Standard Technical Specification Change Traveler associated with TSTF-361. In TSTF-361 the industry requests that each of the three pressurized water reactor (PWR) standard technical specifications be modified to include a note that permits one of the two required shutdown cooling (SDC) loops to be removed for up to two hours for surveillance testing while shutdown with low water level. The justification for the change was provided by the Combustion Engineering Owners Group and stated;

LCO 3.9.5 currently does not allow the non-operating SDC loop to be made inoperable to support surveillance testing. LCOs 3.4.7 and 3.4.8 both allow the non-operating SDC loop to be inoperable for a period of up to 2 hours to perform surveillance testing, provided the other SDC loop is OPERABLE and operating. For consistency, and to support required outage activities and still maintain the plant in a safe condition, this Note should be added to LCO 3.9.5.

The staff has reviewed the request and the justification and concluded that although there may be benefits to having the flexibility to be able to remove a SDC loop for surveillance with low water level, there are circumstances where there may be too little time for the operators to respond to the failure of the operating SDC loop. With the RCS water level low, it may take a short period of time for boiling to occur in the core and potentially prevent the initiation of normal shutdown

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cooling and the proposed modifications to the TS do not include adequate restrictions on when this note could be applied to ensure that the operators are given reasonable time to take actions to manually mitigate any failures to the operating SCD loop. Additionally, there are some risk-significant configurations in refueling with low water level and the removal of an additional loop of SDC is not prudent in these circumstances. The TSTF justification states that other LCOs, specifically 3.4.7 and 3.4.8 applying in mode 5, permit removal of one loop of cooling, however, in mode 5 rather than in refueling there are other plant features that are required to be in place. These differences include, but are not limited to, having the reactor vessel head installed, requirements for the onsite and offsite alternating current power as well as direct current power. As a result, without additional restrictions on the use of the note in the specification that limit when the note can be applied, the SRXB staff recommends that the TSTF not be approved.

The staff recognizes, however, that there are also circumstances, in shutdown with low water level (in TS 3.9.5) where operators will have adequate time to respond to expected failures. As a result, the SRXB staff is willing to discuss reasonable limitations on the use of a note that would allow the operators some flexibility to perform surveillance testing while ensuring that there is reasonable time for the operators to respond to and mitigate any expected failures. Therefore, this technical specification change would be acceptable provided that the note contains a statement prohibiting surveillance when the expected time to core boiling is short, such as in mid-loop operation.

This completes SRXB action for TAC No. MA8394.

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*see previous concurrence page

OFFICE:	SRXB:DSSA	SRXB:DSSA	SRXB:DSSA
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DATE:	3/14 /00	3/15/00	3/15/00

DOCUMENT NAME: G:\SRXB\TSTF361 RHR WITH LOW LEVEL.WPD
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From: Christopher Jackson
To: Tjader, Theodore
Date: Wed, Apr 26, 2000 7:18 AM
Subject: Re: TSTF 361

Bob,

Although what the industry is proposing is a step in the right direction, I would recommend something more tangible than "consider plant conditions." For example, I would recommend adding that the consideration of plant parameters include;

- a. verification that the expected time to boil exceeds the expected time the non-operating SDC loop will be unavailable for the surveillance testing,
- b. no draining operations to further reduce RCS water volume are permitted, and
- c. the capability exists to inject borated water into the reactor vessel.

Note in item (a) we use the term "unavailable" rather than inoperable. This would give the plants considerable flexibility in that they could perform surveillance whenever decay heat is low, or water level is high, or when the surveillance makes the loop inoperable but the loop remains available. The only cases where a surveillance would be prohibited is when decay heat is high, and water level is low, and the surveillance makes the pump unavailable for considerable time (these would be the expected high risk configurations).

Items b and c are to assure a level of defense-in-depth and we would expect these to be reasonably easy to verify prior to taking a SDC loop from service.

I am sure that there are other ways to word the TS to capture these thoughts. We will be happy to discuss appropriate restrictions.

Please call with questions,
Christopher Jackson

>>> Theodore Tjader 04/21 9:54 AM >>>

Chris,

Attached is the industries proposed revision to TSTF-361 in response to your concern. They are adding to the note to consider plant conditions, including time to boil. Please let me know your thoughts on this, if you have any that need to be forwarded to industry at this time.

Thanks, Bob T.

CC: Akstulewicz, Frank

From: "Weber, Thomas N(Z00499)" <TWEBER01@apsc.com>
To: "Bob Tjader (NRC)" <trt@nrc.gov>
Date: Thu, Apr 20, 2000 1:26 PM
Subject: TSTF 361 proposed change to address NRC Comments

Bob, this is what I am going to propose regarding TSTF 361. Recall that this TSTF adds a note to the LCO 3.9.5 that allows one train of RHR/DHR/SDC to be inoperable as long as the other train is OPERABLE and in operation. We would revise the note by adding one sentence (which is in italics for ease of identifying the proposed change) to the end of inserts #2, #4, and #6:

This LCO is modified by a Note that allows one DHR/RHR/SDC loop to be inoperable for a period of 2 hours provided the other loop is OPERABLE and in operation. This permits.....safe and possible. Prior to declaring the DHR/RHR/SDC loop inoperable, consideration should be given to the existing plant configuration, the relative risks associated with declaring the loop inoperable (including the time to boil if the plant is in a reduced inventory condition), and any compensatory actions that are necessary.

I will be sending this to the other TSTF chairmen. If you have any questions or comments on this, please let me know thanks.

SRXB CONCERNS REGARDING REFUELING TS

STS 3.10.6

Q1. What is the purpose of BWR STS 3.10.6, Multiple Control Rod Withdrawal-Refueling?

A1. The purpose of this Special Operations LCO is to permit multiple control rod withdrawal during refueling by imposing certain administrative controls. To allow more than one control rod to be withdrawn during refueling, the refueling interlocks must be defeated. This Special Operations LCO establishes the necessary administrative controls to allow bypassing the "full in" position indicators.

Q2. How does the "full in" position indicator work with respect to the refueling interlocks?

A2. The refueling interlocks use the "full in" position indicators to determine the position of the control rods. If the "full in" position signal is not present for every control rod, then the "all rods in" permissive for the refueling equipment interlocks is not present and fuel loading is prevented. Also, the refuel position "one-rod-out interlock" will not allow the withdrawal of a second control rod.

Q3. What are the administrative controls?

A3. They are: (1) The four fuel assemblies are removed from the core cells associated with each control rod or CRD to be removed; (2) All other control rods associated with core cells containing one or more fuel assemblies are fully inserted; and, (3) Fuel assemblies shall only be loaded in compliance with an approved spiral reload sequence.

Q4. Why is this Special Operations LCO necessary?

A4. It is necessary to allow for concurrent maintenance on multiple control rods. STS 3.10.6 provides for this need.

Q5. What is the concern about 3.10.6?

A5. Plants could, as permitted by a literal reading of the Specification and Bases, have an excessive number of multiple control rods withdrawn while refueling. The concern is that a fuel loading error will occur; NSAC-164 L [and SIL-372] data indicates that the risk of a fuel loading error increases dramatically with refueling interlocks defeated.

Q6. What does SRXB believe should happen?

A6. While there is insufficient justification to backfit plants, an evaluation should be made of the risks involved in entering STS 3.10.6, and if necessary some limits be put in place on the number of control rods that can be withdrawn while refueling.

TSTF-225

Q1. How did TSTF-225 change the STS?

A1. TSTF-225 adds Required Actions to STS 3.9.1 that would permit indefinite entry into the Condition of inoperable refueling interlocks, as long as a control rod withdrawal block is inserted and controls rods are verified inserted for cells containing one or more fuel assemblies.

Q2. What is the concern about TSTF-225?

A2. That it places the plant at further risk by defeating interlocks and relying on additional administrative controls.

Q3. What is the need for TSTF-225?

A3. Plants wish to avoid delays in refueling due to interlock/indicator inoperabilities that can be adequately compensated for by inserting a control rod withdrawal block and verifying control rods are inserted for cells containing one or more fuel assemblies.

Q4. What does SRXB believe should happen?

A4. SRXB does not intend to approve any additional adoptions of TSTF-225 because of concerns about added reliance on administrative controls with the interlocks defeated. It is recognized that there is insufficient justification to backfit plants; that is, the NRC cannot justify the forced removal of TSTF-225 from plants that have already adopted it.

TSTF-226

Q1. How does TSTF-226 propose to change the STS?

A1. TSTF-226 adds an LCO statement to STS 3.10.6 that would allow an alternative to the requirement for a spiral loading sequence as long as a positive means exists for assuring fuel assemblies cannot be loaded into the core; it would permit fuel shuffling with multiple control rods withdrawn from the core.

Q2. What is the concern about TSTF-226?

A2. Approval of TSTF-226 will increase the chances of a fuel loading error; increase the chances of a Loaded Uncontrolled Fuel Cell (LUFC) occurring.

Q3. What does SRXB believe should happen?

A3. SRXB does not intend to approve any initial adoptions of TSTF-226.