

April 17, 2009

Technical Specification Task Force
11921 Rockville Pike, Suite 100
Rockville, MD 20852

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING TSTF-508,
REVISION 0, "REVISE CONTROL ROOM HABITABILITY ACTIONS TO
ADDRESS LESSONS LEARNED FROM TSTF-448 IMPLEMENTATION" (TAC
NO. MD9433)

Dear Members of the TSTF,

By letter dated July 3, 2008, the Pressurized Water Reactors Owners Group (PWROG) submitted TSTF-508, Revision 0, "Revise Control Room Habitability Actions to Address Lessons Learned from TSTF-448 Implementation." The staff has determined that additional information is needed to complete the review. Enclosure 1 is the NRC staff's request for additional information (RAI). Please contact me at (301)415-1470 or by electronic mail at joseph.williams@nrc.gov if you have any questions on this topic.

Sincerely,

/RA/

Joseph F. Williams, Senior Project Manager
Special Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Enclosure:
Request for Additional Information

cc: See next page

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NRR-106

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NAME	RElliott	SRosenberg			
DATE	03/24/09	04/17/09			

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Technical Specifications Task Force Mailing List

cc:

Technical Specifications Task Force
11921 Rockville Pike
Suite 100
Rockville, MD 20852
Attention: Donald Hoffman
Telephone: 301-984-4400
E-mail: donaldh@excelservices.com

Brian Mann
EXCEL Services Corporation
11921 Rockville Pike, Suite 100
Rockville, MD 20852
Telephone: 301-984-4400
E-mail: brianm@excelservices.com

Kenneth Schrader
Diablo Canyon Power Plant
Building 104/5/21A
P.O. Box 56
Avila Beach, CA 93424
Telephone: 805-545-4328
E-mail: kjse@pge.com

John Messina
First Energy Nuclear Operating Company
76 South Main Street
Mail Stop: Akron-GO-14
Akron, OH 44308
Telephone: 330-384-5878
E-mail: jmessina@firstenergycorp.com

Thomas Raidy
Southern California Edison
Mail Stop D-3-E
P.O. Box 128
San Clemente, CA 92672
Telephone: (949) 368-7582
E-mail: Tom.Raidy@sce.com

Reene' V. Gambrell
Duke Energy
Mailcode: ON03RC
7800 Rochester Highway
Seneca, SC 29672
Telephone: 864-885-3364
E-mail: RVGambrell@duke-energy.com

REQUEST FOR ADDITIONAL INFORMATION

TECHNICAL SPECIFICATION TASK FORCE (TSTF) TRAVELER 508, REVISION 0

“REVISE CONTROL ROOM HABITABILITY ACTIONS TO ADDRESS LESSONS LEARNED FROM TSTF-448 IMPLEMENTATION” (TAC NO. MD9433)

By letter dated July 3, 2008, the Pressurized Water Reactors Owners Group (PWROG) submitted TSTF-508, Revision 0, “Revise Control Room Habitability Actions to Address Lessons Learned from TSTF-448 Implementation.” As discussed below, the NRC staff has determined that additional information is needed to complete the review.

The Standard Technical Specifications (STS), as amended by TSTF-448, require immediate suspension of movement of irradiated fuel and immediate suspension of Operations with a Potential for Draining the Reactor Vessel (OPDRVs) for boiling water reactors (BWRs) when one or more Control Room Emergency Ventilation System/Control Room Emergency Filtration System/Control Room Emergency Air Cleanup System/Main Control Room Environmental Control/Control Room Fresh Air [CREVS/CREFS/CREACS/MCREC/CRFA] subsystems is inoperable due to an inoperable control room envelope (CRE) boundary.

TSTF-508 contains 3 basic changes to the STS, as amended by TSTF-448. The changes are described on page 2 of TSTF-508 (Agencywide Documents Access and Management System (ADAMS) accession number ML081850420). This request for additional information pertains to the change described in paragraph “a” on page 2 of TSTF-508. Among other things, those changes provide a relaxation of the restrictions on movement of irradiated fuel and OPDRVs when one or more [CREVS/CREFS/CREACS/MCREC/CRFA] subsystems is inoperable due to an inoperable CRE boundary. The proposed changes allow operators to continue movement of irradiated fuel and continue OPDRVs for up to 90 days when one or more [CREVS/CREFS/CREACS/MCREC/CRFA] subsystems is inoperable due to an inoperable CRE boundary.

The second paragraph on page 5 of TSTF-508 (Technical Analysis) provides justification for the relaxation of the restrictions on fuel movement and OPDRVs. The first justification states: “First, suspension of fuel movement is unnecessary if Required Action B.2 verifies that the required mitigating actions protect the CRE occupants, just as is required in the operating Modes.” When one or more [CREVS/CREFS/CREACS/MCREC/CRFA] subsystems is inoperable due to an inoperable CRE boundary, the proposed changes to the STS as written allow movement of irradiated fuel and OPDRVs to continue for up to 24 hours *prior* to completion of Required Action B.2. This appears to conflict with the justification given in the second paragraph on page 5 of TSTF-508, in that the justification seems to imply that fuel movement would be suspended until Required Action B.2 is complete. The NRC staff also believes that it is prudent to immediately suspend fuel handling operations or OPDRVs until after Required Action B.2 is complete. The characteristic risk of a Fuel Handling Accident (FHA), and the dynamic nature of plant maintenance, repair, testing, and other ongoing operations that could be taking place during Modes 5 and 6 is of primary concern.

ENCLOSURE

In TSTF-448, rev. 3, Required Action B.2 is applicable to MODES 1 through [4](hot shutdown). "The 24-hour Completion Time of new Required Action B.2 is reasonable based on the low probability of a DBA occurring during this time period, and the use of mitigating actions as directed by Required Action B.1." Generally, the plant would be expected to remain in a steady state condition during the 24-hour verification time. However, there is the possibility of a fuel handling accident each time a fuel assembly is moved. TSTF-508 would permit continued movement of fuel, and therefore, continued risk of a fuel handling accident, for up to 24-hours before completing the verification that mitigating actions protect CRE occupants from chemical and smoke hazards and that radiological limits will not be exceeded. The NRC staff believes TSTF-508 did not provide sufficient justification based on safety for continued movement of irradiated fuel assemblies or performing OPDRVS before completion of Required Action B.2.

- 1. Explain how the proposed change in TSTF-508 will ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants will be protected from chemical and smoke hazards during the period of time between the discovery of one or more [CREVS/CREFS/CREACS/MCREC/CRFA] subsystems inoperable due to an inoperable CRE and the completion of Required Action B.2 while moving irradiated fuel or performing OPDRVs.**

On page 6 of TSTF-508, the response to the question "Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?" is No.

Since the STS, as amended by TSTF-448, do not allow movement of irradiated fuel while a plant's CRE boundary is inoperable, the probability of a FHA when moving irradiated fuel while a plant's CRE boundary is inoperable is essentially zero. As stated above, TSTF-508 would allow irradiated fuel movement and OPDRVs to occur while a plant's CRE boundary is inoperable. This causes the probability of a FHA when moving irradiated fuel while a plant's CRE boundary is inoperable to be greater than zero.

Similarly, STS as amended by TSTF-448 cause the consequences of a FHA while a plant's CRE boundary is inoperable to be essentially zero. Using the STS proposed by TSTF-508 could cause the consequences of a FHA while a plant's CRE boundary is inoperable to be significantly greater than the consequences of a FHA when using the STS as amended by TSTF-448.

Therefore, the staff does not agree with the justification or the response to the question "Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?" proposed in TSTF-508.

- 2. Explain or provide further justification for the response to the question "Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?"**