

June 23, 2003

Mr. Anthony Pietrangelo
Nuclear Energy Institute
1776 I Street, N. W.
Suite 400
Washington, DC 20006-3708

Dear Mr. Pietrangelo:

This is to inform you of the disposition for traveler TSTF-422, Revision 1, containing proposed changes to the Combustion Engineering (CE) Standard Technical Specifications (STS), NUREG-1432, Revision 2, initiated by the NEI Technical Specification Task Force (TSTF).

The staff has reviewed traveler TSTF-422, Revision 1, "Risk-Informed Modification to Selected Action End States for CEOG PWRs," and requests modifications. TSTF-422 proposed to revise the CE STS, to reflect topical report CE NDPD-1186, as approved by the NRC safety evaluation (SE) of July 17, 2001. The proposal changes end states for certain technical specification (TS) action statements from cold shutdown to hot shutdown. The TSTF-422 NEI submittal letter of January 23, 2003, noted that the NRC staff "safety evaluation contained a number of stipulations and conditions relative to the use of the alternate end state. In order to be consistent with a risk management approach, the CEOG referenced the associated provisions of 10 CFR 50.65(a)(4) rather than explicitly incorporating the conditions and stipulations into the technical specifications." Dismissing all of the staff's "conditions and stipulations" listed in the SE by invoking the 10 CFR 50.65(a)(4) risk assessment and management process, and associated NUMARC 93-01 section 11 guidance, is not sufficient. Each of the "conditions and stipulations" must be individually evaluated to determine the extent it must be reflected in the TS. The staff has the following comments with respect to the proposed TSTF-422 changes and the "conditions and stipulations" of the SE:

1. A statement similar to the following paragraph should appear in the TS Bases for each required action that includes a revised end state (i.e., table item numbers 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 in the "Evaluation of Each Specification" table):

"TS required entry into shutdown modes that are within the applicability of the limiting condition for operation (LCO), such as this required action, are intended for the length of time it takes to restore the LCO conditions; generally for short term durations only. Since corrective maintenance will be necessary, the 10 CFR 50.65(a)(4) requirement to assess and manage risk will apply, and should confirm that remaining in the shutdown mode that is within the applicability of the LCO is acceptable for the plant specific configuration. NRC Reg Guide 1.182 endorses NUMARC 93-01 section 11 guidance for implementation of 10 CFR 50.65(a)(4), and shall be followed; including the conduct of an (a)(4) reevaluation for emergent conditions."

2. Specification 3.3.8 (digital), Containment Purge Isolation Signal (CPIS), (table item 4): In accordance with the CEOG topical and staff SE, when the CPIS is disabled, the operating staff should be alerted and operation of the containment mini-purge should be restricted; and, consideration should be given to maintain availability of Containment Isolation Actuation Signal (CIAS) during CPIS Mode 4 repair. Practically this means that, a statement to this effect should appear in the TS Bases for the applicable required action. In addition, licensees must commit to incorporating suitable guidance into operating documentation.
3. Specification 3.3.8 (analog) & 3.3.9 (digital), Control Room Isolation Signal (CRIS), (table item 5): In accordance with the CEOG topical and staff SE, it would be prudent to minimize unavailability of Safety Injection Actuation Signal (SIAS) and alternate shutdown panel and/or remote shutdown capabilities during Mode 4 operation with CRIS unavailable. Practically this means that, a statement to this effect should appear in the TS Bases for the applicable required action. In addition, licensees must commit to incorporating suitable guidance into operating documentation.
4. Specification 3.6.3, Containment Isolation Valves (CIVs), (table item 12): In accordance with the staff SE, the revised end state applies when containment leakage is within limits but some portion of the containment isolation function is impaired (e.g., one valve in a two valve path inoperable or containment purge valves have leakage in excess of TS limits). The CIVs must still be functional under conditions anticipated to be credible during Mode 4 operation. Practically this means that, end state Mode 4 operation should only apply to TS Conditions A, D and E; TSTF-422 needs to be revised accordingly.
5. Specification 3.6.4, Containment Pressure, (table item 13): In accordance with the staff SE, "plants with steel shell containments, if the lower limit pressure specification is violated, the operators are to confirm operability of the vacuum breakers. For all plants, when entering this action statement for violation of low containment pressure limit for a period projected to exceed one day, one containment spray pump is to be secured." Practically this means that: a statement should be added to the TS Bases of plants with steel shell containments to confirm vacuum breaker operability, since vacuum breakers are required to be operable in Modes 1 through 4 by TS; and, a required action is to be added to secure one containment spray pump when in the low pressure required action statement for a day (24 hour completion time).
6. Specification 3.7.7, Component Cooling Water (CCW), (table item 19): In accordance with the CEOG topical and staff SE, when CCW is lost to the Reactor Coolant Pump (RCP) seals, reactor shutdown is required and the RCS Loops operating TS is entered. Limited duration natural circulation operation is acceptable, but extended plant operation in higher Mode 4 temperatures may degrade RCP elastomers. Mode 5 operation ensures adequately low RCS temperatures so that any RCP seal challenges would be avoided. Prior to entry into Mode 5 due to loss of CCW to RCP seals, the redundant CCW train should be confirmed to be operable and backup cooling water systems should be confirmed to be available for emergency use. SG inventory should be retained to assure a diverse and redundant heat removal source if CCW should fail.

Practically this means that, in addition to the TS Bases stating the above, a condition/required action should be added to the TS that requires Mode 5 entry if CCW flow is lost to the RCP seals.

7. Specification 3.7.10, Essential Chill Water (ECW), (table item 22): A TS Bases statement should be added to the Bases on the required action with the revised end state, in accordance with the CEOG topical, advising that reduced pressure operation in Mode 4 should be considered to reduce the potential of a Loss of Coolant Accident (LOCA).
8. Specification 3.7.11, Control Room Emergency Air Cleanup System (CREACS), (table item 23): A TS Bases statement should be added to the Bases on the required action with the revised end state, in accordance with the CEOG topical, advising that regardless of the CREACS status, the risks of Mode 4 are lower (or equivalent) to the similar Mode 5 operating state, and that the availability of the alternate/local shutdown panels should be ensured.
9. Specification 3.7.12, Control Room Emergency Air Temperature Control System (CREATCS), (table item 24): A TS Bases statement should be added to the Bases on the required action with the revised end state, in accordance with the CEOG topical, that the availability of the alternate/local shutdown panels should be ensured.
10. Specification 3.7.13, Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS), (table item 25): A TS Bases statement should be added to the Bases on the required action with the revised end state, in accordance with the CEOG topical, advising that regardless of the ECCS PREACS status, the risks of Mode 4 are lower (or equivalent) to the similar Mode 5 operating state. In addition, units adopting this change must have adopted the preplanned compensatory measures required for the NUREG-1432 TS condition for an inoperable ECCS boundary.
11. Specification 3.7.15, PREACS, (table item 26): A TS Bases statement should be added to the Bases on the required action with the revised end state, in accordance with the CEOG topical, advising that regardless of the PREACS status, the risks of Mode 4 are lower (or equivalent) to the similar Mode 5 operating state. In addition, units adopting this change must have adopted the preplanned compensatory measures required for the NUREG-1432 TS condition for an inoperable penetration room boundary.
12. Specification 3.8.1, AC Sources Operating, (table item 27): In accordance with the CEOG topical and staff SE, switchyard activities during revised end state Mode 4 operation, other than those necessary to restore offsite power should be prohibited. Practically this means that, a statement to this effect should appear in the TS Bases for the applicable required action. In addition, licensees must commit to incorporating suitable guidance into operating documentation.

Mr. Anthony Pietrangelo

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Please contact T. R. Tjader at (301) 415-1187 or e-mail trt@nrc.gov if you have any questions or need further information on these proposed changes.

Sincerely,

/RA/

William D. Beckner, Program Director
Operating Reactor Improvements Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

cc: M. Schoppman, NEI
P. Infanger, BWOOG
D. Bice, CEOG
T. Silko, BWROG
S. Wideman, WOG
D. Hoffman, EXCEL
B. Mann, EXCEL

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D. Hoffman, EXCEL
B. Mann, EXCEL

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