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**To:** [Arent, Gordon](#)  
**Cc:** [Bryan, Robert H Jr \(rhbryan@tva.gov\)](#)  
**Subject:** Preliminary Draft RAIs Associated with Proposed WBN 1 ERCW and CCS Technical Specifications LAR  
**Date:** Thursday, July 02, 2015 4:33:00 PM

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Gordon,

In addition to the supplement needs identified by the staff as discussed at the July 1 meeting, the staff has identified several draft requests for additional information during the acceptance review as provided below.

- 1) Because of the added pumping power of CCS and ERCW, provide new flows as follows:
  - a. Initial Conditions: LOCA on Unit 2; Unit 1 at 100%, loss of offsite power (LOOP), and loss of Train A electrical power.
    - i. Identify required minimum flow to perform safety-related (SR) function for each load cooled by ERCW and CCS in Unit 1 and Unit 2.
    - ii. Identify actual flow to each of the loads with only Train B ERCW (i.e. 2 pumps) and Train B of CCS available because of the loss of Train A electrical power.
    - iii. Describe operator actions and timing of operation required to achieve the required/actual flows.
  - b. Initial Conditions: LOCA on Unit 2; Unit 1 just entered Mode 4 in minimum time allowed by procedure (i.e. maximum decay heat), LOOP, and loss of Train A electrical power.
    - i. Identify required minimum flow to perform SR function for each load cooled by ERCW and CCS in Unit 1 and Unit 2.
    - ii. Identify actual flow to each of the loads with only Train B ERCW (i.e. 3 pumps) and Train B of CCS (2 pumps) available because of the loss of Train A electrical power.
    - iii. Describe operator actions and timing of operation required to achieve the required/actual flow.
    - iv. Discuss the flow and differential pressure across the C CCW HX on both the tube side and shell side from the 3 Train B ERCW pumps and the 2 CCS pumps before and after ERCW flow is initiated to the CS HXs. Specify whether tube and shell flows and differential pressures across the C CCS HX are acceptable and why.
    - v. Discuss flow and differential pressure across the ERCW strainers and traveling screens when 3 ERCW pumps per train are operating. Address whether flows and differential pressures across the strainers and screens are acceptable and why.
- 2) The MODE 5 REQUIRED ACTIONS of proposed TS 3.7.16 and 3.7.17 do not appear to provide any remedial actions to place the non-accident unit in any safer status in the event of an inoperable CCS or ERCW train. Provide additional justification for the action proposed and discuss any alternative actions available to place the unit in a safer status in the event of an inoperable CCS or ERCW train.
- 3) Please provide explanation for the reference to the 10CFR50 Appendix R fire scenario and the need for two ERCW pumps on one DG identified on page E1-11.
- 4) The staff noted the following statement in the APPLICABILITY section of the proposed TS 3.7.16 Bases "... any resulting temporary loss of redundancy or single failure

protection is taken into account...” This statement appears to be an interpretation of the TS, not a bases (reason) for the specification. Per 10 CFR 50.36(a)(1) “... bases or reasons for such specifications ...” are to be included “... but shall not become part of the specifications.” Please either remove this statement or provide additional justification for its inclusion in the TS bases.

Please contact me to discuss any clarifications needed.

Regards,  
Bob

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