

## **NRR-DMPSPeM Resource**

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**From:** Lee, Samson  
**Sent:** Monday, October 22, 2018 9:30 AM  
**To:** Wells, Russell Douglas  
**Cc:** Hon, Andrew  
**Subject:** additional information needs identified during audit - Sequoyah Nuclear Plant, Units 1 and 2, Request to Modify Essential Raw Cooling Water Motor Control Center Breakers and to Revise Updated Final Analysis Report (SQN-TS-17-04) (EPID: L-2018-LLA-0060)

Mr. Wells,

The NRC staff is continuing the regulatory audit for the subject Sequoyah license amendment request. Below are additional information needs identified in the electrical engineering and human factor areas.

### Talking Points

5. Withdrawn.
6. If the administrative controls were to fail (tie-breakers left closed), and both sources of power were left aligned to ERCW MCCs belonging to a train (e.g., "A" train), explain the effect on the ability to safely shutdown the plant under all design basis accident conditions. For example, if both the normal and alternate power supplies were left aligned to ERCW 480V MCCs 1A-A and 2A-A, and a LOOP with a LOCA occurs, what will be the effect on the ability of the plant to shutdown if power to upstream 6.9KV train "A" shutdown boards (1A and 2A) is lost as a result of the possible out-of-phase transients between the two emergency diesel generators involved?
7. If the administrative controls were to fail (tie-breakers left closed), discuss whether both power supplies left aligned to ERCW MCCs belonging to a train (e.g. "A" train) could be out-of-phase when the upstream 6.9 kV shutdown boards (1A and 2A) are powered from offsite power.
8. Describe the procedures and administrative controls used to identify when it is acceptable to perform the actions, how to perform the required actions, and how the operator will know if the action has been performed correctly. Include descriptions of any controls regarding when it is not appropriate to perform the action. Include descriptions of the controls that will be used to ensure the following:
  - that it is acceptable to align the alternate power supply to an ERCW MCC (to ensure that the alternate power supplies are not aligned when powered from the emergency diesel generators),
  - that the ERCW bus that will be powered by its alternate power supply is dead prior to aligning the alternate supply, and
  - that the breaker alignment is correct after restoration of normal breaker alignment.
9. Describe any potential errors associated with the action and their consequences, including how any undesirable consequences (such as tripping an MCC due to aligning both power supplies) would be mitigated.
10. Describe any relevant operating experience related to failure of administrative controls or breaker manipulations and how that operator experience has been incorporated.

Please propose logistics to facilitate the audit, such as a telephone conference, with or without the web portal.

Thanks,  
Sam

**Hearing Identifier:** NRR\_DMPS  
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**From:** Lee, Samson

**Created By:** Samson.Lee@nrc.gov

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