

## Vogtle PEmails

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**From:** Kallan, Paul  
**Sent:** Monday, January 22, 2018 8:18 AM  
**To:** Vogtle PEmails  
**Subject:** FW: Draft RAI for 17-033

RAI:

10 CFR Part 50, Appendix A, General Design Criterion 37, "Testing of emergency core cooling system", requires in part that the emergency core cooling system shall be designed to permit appropriate periodic pressure and functional testing to assure the operability of the system as a whole and, under conditions as close to design as practical, the performance of the full operational sequence that brings the system into operation. The IRWST and PRHR heat exchanger make up part of the emergency core cooling system for this design.

One of the proposed changes in the LAR changes the acceptance criterion in UFSAR Subsection 14.2.9.1.3 from supporting the safe shutdown temperature criteria in Chapter 19 to demonstrating that the average IRWST heatup is consistent with the PRHR heat transfer modeling in Chapter 15. It is not clear to the staff how this acceptance criteria will be satisfied – unlike the previous acceptance criteria, which had a clear numerical basis (420F in 36 hours), the revised acceptance criteria cites consistency with a modeling approach. The technical evaluation section of the LAR states that data from the test will still be used to support the overall PPRHR heat transfer assumptions, and that the use of LOFTRAN "allows for a one-to-one comparison between the as-built plant and the safety analysis presented in Chapter 15". Staff recognizes that testing at conditions akin to those in Chapter 15 and/or Chapter 19 may not be practical. However, the staff needs additional description of how the proposed test will demonstrate system performance under the expected conditions. Accordingly, staff requests that the applicant provide additional detail regarding the new acceptance criteria for a satisfactory test, and how the test data will be used to demonstrate consistency with the analysis documented in Chapter 15.

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