

Regulatory Guide Number: 1.68.1, Revision 2

Title: Initial Test Program of Condensate and Feedwater Systems for Light-Water Reactors

Office/division/branch: NRR/DSS/SCPB

Technical Lead: Steve Jones

Staff Action Decided: Withdraw

1. What are the known technical or regulatory issues with the current version of the Regulatory Guide (RG)?

No technical or regulatory issues were identified.

RG 1.68.1, "Initial Test Program of Condensate and Feedwater Systems for Light-Water Reactors," provides guidance for complying with Commission regulations when developing preoperational, initial plant startup, and power ascension tests for light water reactor (LWR) power plant condensate, feedwater (FW), startup feedwater (SFW), auxiliary feedwater (AFW), and emergency feedwater (EFW) systems. It includes recommended tests for new reactor condensate and FW systems for the advanced boiling water reactor (BWR), economic simplified BWR, U.S. evolutionary power reactor (EPR), U.S. advanced pressurized water reactor (PWR), and advanced passive 1000 (AP1000), including the AFW/EFW systems for the U.S. EPR and the U.S. advanced PWR. In addition, it includes tests for active defense-in-depth system functions such as the SFW system in the AP1000 design.

There are no known inadequacies. However, the RG does not offer significant additional guidance beyond the power conversion system test guidance contained in Appendix A to RG 1.68, and, therefore, is unnecessary for licensing reviews.

2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of anticipated numbers of licensing and inspection activities over the next several years?

No expected impact. New reactors (i.e., Vogtle Units 3 and 4) have not incorporated RG 1.68.1 into the licensing basis as described in the UFSAR. The pre-operational test program guidance in RG 1.68 is adequate for licensing of future LWRs. The impact on operating reactors is minimal because the scope of the RG is pre-operational testing of the feedwater and condensate systems. Post-maintenance testing has been adequately established through other guidance and requirements.

3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?

No more than 0.1 FTE.

4. Based on the answers to the questions above, what is the staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?

Withdraw.

5. **Provide a conceptual plan and timeframe to address the issues identified during the review.**

Withdraw RG 1.68.1 in FY 2023.

NOTE: This review was conducted in August 2022, and reflects the staff's plans as of that date. These plans are tentative and subject to change.