

Regulatory Guide Periodic Review

Regulatory Guide Number: 1.68.2, Revision 2

Title: Initial Startup Test Program to Demonstrate Remote Shutdown Capability for Water Cooled Nuclear Power Plants

Office/division/branch: NRO/DCIP/QVIB

Technical Lead: Francis Talbot

Staff Action Decided: Reviewed with issues identified for future consideration

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

RG 1.68.2, "Initial Startup Test Program To Demonstrate Remote Shutdown Capability For Water-Cooled Nuclear Power Plants," published in April 2010. The RG provides an approach acceptable to the NRC staff for establishing an initial startup testing program to demonstrate hot shutdown capability and the potential for cold shutdown from outside the control room. This guide is applicable to water-cooled nuclear power plants.

Two administrative items were identified during this review.

- 1) The June 2013 revision of RG 1.68, "Initial Test Programs For Water-Cooled Nuclear Power Plants," contains a paragraph that outlines limitations of the RG. As this RG is subordinate to RG 1.68, some consideration should be given to adding language to RG 1.68.2 to make clear that the clarifying statement in RG 1.68 does not apply to or otherwise impact information provided in RG 1.68.2. (For clarity, the paragraph has been included below.)

"This revision to RG 1.68 may not be suitable for ITPs required as part of new regulations issued after the date shown on the front page of this guide. For example, RG 1.68 does not address new equipment added to the current fleet of plants to mitigate long term station blackout and beyond design basis events. New NRC regulations and RGs may be used to implement requirements for mitigating equipment (i.e., containment venting systems, hardened vents, hardened filter vents, etc.) in light water reactors (LWRs) with mitigating strategies to address long term station blackout and beyond design basis events. Licensees or applicants that may be impacted by newer regulations should contact the NRC staff for guidance prior to developing ITPs for any equipment mandated by the new regulations."

- 2) The April 2010 revision of RG 1.68.2 does not conform with the current guidance for harmonization with international standards. Similar to RG 1.68, pertinent to this regulatory guide, IAEA Safety Guide NS-G-2.9, "Commissioning of Nuclear Power Plants," issued June 2003, addresses tests to be performed during commissioning of a nuclear power plant. This regulatory guide incorporates similar testing program recommendations and is consistent with the basic safety

principles provided in IAEA Safety Guide NS-G-2.9. Additionally, IAEA Safety Guide NS-G-2.9 was superseded by SSG-28, "Commissioning of Nuclear Power Plants," on June 5, 2014.

No technical or regulatory issues were identified during the review.

- 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?**

As no technical or regulatory issues were identified, there is no impact to internal or external stakeholders resulting from these activities.

- 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?**

As no technical or regulatory issues were identified, no resources are required.

- 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)?**

Reviewed with issues identified for future consideration.

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

No technical or regulatory issues were identified during the review. Issues identified will be addressed during a future revision.

NOTE: This review was conducted in April 2015 and reflects the staff's plans as of that date. These plans are tentative and are subject to change.