

Regulatory Guide Periodic Review

Regulatory Guide Number: 1.102, Revision 1
Title: Flood Protection for Nuclear Power Plants
Office/Division/Branch: RES/DE/SGSEB
Technical Lead: Jacob Philip
Staff Action Decided: Revise

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

Regulatory Guide 1.102, Revision 1, "Flood Protection at Nuclear Power Plants," was issued in September 1976, and establishes the NRC's position for an acceptable approach for flood protection at nuclear power plants (NPP).

The guide is in the process of revision to update (i) references on new design and construction criteria for passive flood protection features, (ii) information on active flood protection features such as seals for penetrations, flood doors, site drainage features, (iii) information on temporary barriers, e.g., sand bags, flood walls, (iv) human factors aspects for flood mitigation and prevention and (v) information from Interim Staff Guidance JLS-ISG-12-05, "Draft Interim Staff Guidance on Performance of an Integrated Assessment for Flooding."

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?

There are no new large power reactor license applications anticipated in the near future (next 3 to 5 years). Thus, there is no immediate need for revising the guide to address their licensing. For small modular reactors, the review of the NuScale design certification is under review and it is premature to develop unique guidance to address that design.

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?

Revision of the guide is estimated to require 0.25 NRC FTEs.

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)?

Revise.

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

The staff plans to develop a draft guide by end of the fourth quarter of FY 2018, and issue it for public comment in the second quarter of FY 2019.

NOTE: This review was conducted in May 2018 and reflects the staff's plans as of that date. These plans are tentative and subject to change.