

Regulatory Guide Periodic Review

Regulatory Guide Number: **1.59**
Title: **Design Basis Floods for Nuclear Power Plants**
Office: **RES/DRA/ETB**
Technical Lead: **Joseph Kanney**
Recommended Staff Action: **Revision (In progress)**

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

Regulatory Guide 1.59, Revision 2, "Design Basis Floods for Nuclear Power Plants," was issued in August 1977, and establishes the NRC's position for acceptable approaches for design basis flood estimation for nuclear power plants (NPP). Although the Guide focuses on NPPs, it is also used by NRC staff for license application reviews and oversight of fuel cycle facilities and radioactive waste disposal facilities.

The guide is in the process of being updated to include: (i) references on new flood hazard data and online databases, (ii) references on new data and databases for characterizing watersheds, (iii) information on new and improved analytical methods for both inland and coastal flooding hazards, and (iv) information from Interim Staff Guidance (ISG) developed for the flood hazard reassessments being conducted by licensees in response to NRC's 10 CFR 50.54(f) Information Request issued on March 11, 2012. The revised guide will be applicable to new reactors only.

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?

The staff is in the process of updating RG 1.59.

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?

A technical basis document for revision the RG (NUREG/CR-4076) has been provided to the NRC, and relevant ISGs (ISG-JLD-2012-06, and ISG-JLD-2013-01). This guide is being revised (currently in concurrence review) and will entail approximately 0.08 FTE's to complete.

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)?

The RG is being revised.

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

The staff anticipates completing a draft version for public comment by the end of October, 2014 and the final RG by the end of calendar year 2014.

NOTE: This review was conducted in September, 2014 and reflects the staff's plans as of that date. These plans are tentative and might change as the work progresses.