

Regulatory Guide Periodic Review

Regulatory Guide Number: 3.37, Revision 0

Title: Guidance for Avoiding Intergranular Corrosion and Stress Corrosion in Austenitic Stainless-Steel Components of Fuel Reprocessing Plants

Office/Division/Branch: NMSS/DFM/MSB
Technical Lead: Nick Hansing

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)?

This RG was issued in September 1975 to provide guidance for avoiding intergranular corrosion and stress corrosion in austenitic stainless-steel components in fuel reprocessing plants. The guide applies to austenitic stainless steel used in safety-related process equipment with its associated vessels and piping, radioactive waste handling and storage systems, metal liners of process cells and waste storage tank vaults, and other safety-related structures, systems, and components of fuel reprocessing plants.

The current version of this regulatory guide has no known technical or regulatory issues but could be updated to reflect the current state of knowledge. Also, the technical basis and the references cited are appropriate but could be updated to reflect the current state of knowledge.

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 anticipated short-term applications that would utilize this RG. However, pre-application engagement has occurred with vendors who might benefit from an update to this guidance.

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?

An estimate is not provided for this regulatory guide, as estimates for this revision as a standalone effort would not reflect potential efficiencies realized by a considered holistic effort to revise guidance in a coordinated manner to support applications involving reprocessing technologies, potentially as early as 2025.

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.

The staff is considering a holistic look at the regulatory infrastructure supporting a potential reprocessing facility application. This holistic coordinated effort could consider the subject RG, as well as other guidance documents, for potential revision. The schedule would be in support of applications involving reprocessing technologies, potentially as early as 2025.

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