

Periodic Review of RG 1.128 Revision 2

Regulatory Guide Number: 1.128 Revision 2

Title: Installation Design and Installation of Vented Lead-Acid Storage Batteries for Nuclear Power Plants

Office/division/branch: RES/DE/ICEEB and NRR/DEX/EEB
Technical Lead: Mohammad Sadollah and Sheila Ray

Staff Action Decided: Revise

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

The current version of RG 1.128 endorses IEEE standard 484-2002, "IEEE Recommended Practice for Installation Design and Installation of Vented Lead-Acid Batteries for Stationary Applications." This standard has been revised and the current version, IEEE standard 484-2019 has been published. The staff reviewed the redline/strikeout version of this revision and noted some major changes, additions, and clarifications associated with IEEE standard 484-2019 as compared with the 2002 version. Consequently, the current version of RG 1.128 does not address the latest revisions of the subject standard. The 2019 revision of IEEE 484 includes; addition of thermal factors of influence (exposure temperature, ambient temperature, temperature gradient, and rate of temperature change), addition of safety provisions (e.g., electrical hazards, shock hazards, ground fault hazards, arc flash hazards, chemical hazards, etc.), modifications to personal protective equipment section, major changes to mounting and ventilation sections, new provisions on connection to DC systems and spare cells, new provisions for material handling and hazard assessment, as well as many other updates, corrections and clarifications to various sections.

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?

Use of the current revision of RG 1.128 will have no known impact on internal or external stakeholders at this time.

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?

NRC staff would have to spend approximately .5 FTE to complete a new revision of RG 1.128 to address the issues identified in question 1 of this periodic review. No contractor support is anticipated.

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 for public comments in CY 2024.

NOTE: This review was conducted in April 2023 and reflects the staff's plans as of that date. These plans are tentative and subject to change.