

## Regulatory Guide Periodic Review

Regulatory Guide Number: **8.28**  
Title: **Audible-Alarm Dosimeters**  
Office/division/branch: **RES/DSA/RPB**  
Technical Lead: **Casper Sun**  
Recommended Staff Action: **Revise RG 8.28 with issues identified**

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

Regulatory Guide 8.28, revision 0, "Audible-Alarm Dosimeters," published in August, 1981. The RG discusses a program for the appropriate use of audible-alarm dosimeters, including certain conditions under which they should not be relied upon to perform their intended function. As required by Management Directive 6.6, "Regulatory Guides," the NRC staff agrees to revise RG 8.28 for it continues to be useful. Both technical and regulatory issues were identified. These include a better alignment with current 10 CFR Part 20 regulations and ANSI standards as indicated in the "Reference." Current RG 8.28 uses ANSI N13.27, "Performance Specifications for Pocket-Sized Alarming Dosimeters /Ratemeters" standard has been superseded.

**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?**

This RG applies to all NRC licensing activities involve the use of RG 8.28. Since the RG is outdated Staff and stakeholders have been dealing with new dosimeters using precedent in licensing applications.

**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 requires approximately 0.5 FTE to complete documentation of the technical evaluations of the current technology of Alarming dosimeter and alignment with current 10 CFR 20 regulations. Based on the results of these activities, the staff will require further effort and coordination with NRC program offices. 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 RG 8.28.

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

Technical lead will conduct comment resolutions and consolidation from previously established draft documents, i.e., DG-8043, "Electronic Dosimeters." The staff plans to submit a draft guide (DG) by the second quarter of FY15, and issue it public comment by the fourth quarter of FY15.

**References**

1. IEEE, N42.20, "American National Standard Performance Criteria for Active Personnel Radiation Monitors" New York, NY. February 2004
2. IEEE, N 42.49A, "American National Standard Performance Criteria for Alarming Electronic Personal Emergency Radiation Detectors (PERDs) for Exposure Control." New York, NY. June 2011

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