

Regulatory Guide Periodic Review

Regulatory Guide Number: **RG 4.13**

Title: **Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications**

Office/Division/Branch: **NRR/DRA/ARCB**

Technical Lead: **Steven Garry**

Recommended Staff Action: **Revise**

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

The July 1977 version of this Regulatory Guide, Rev.1, "Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications" endorsed (with exceptions) portions of American National Standards (ANSI) N545 (1975) "Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry (Environmental Applications)." ANSI N545 has been withdrawn and superseded by the American National Standards Institute/Health Physics Society (ANSI/HPS) N13.37 – 2014, "Environmental Dosimetry."

ANSI/HPS N13.37 (2014) provides improved methods for the analysis of environmental dosimeters used to measure direct radiation in the environment. These new methods are an improvement over existing methods described in the current revision of RG 4.13. Therefore, RG 4.13 is currently under revision to endorse the new 2014 ANSI/HPS N13.37 standard.

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 not anticipating any issues with operating reactors or new reactors or materials licensees from not updating the RG. Licensees may continue using the existing methods. However, the new analytical methods in ANSI N13.37 provide a more accurate assessment of potential facility-related dose to members of the public.

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?

The revision is being done in-house and the effort is about 0.2 FTE. No contractor resources are required.

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.**

This RG is currently being revised. The Draft version of the guide, DG-4019, titled "Environmental Dosimetry-Performance Specifications, Testing, and Data Analysis," Revision 2, will be published for public comment by the fourth quarter of FY 2015.

NOTE: This review was conducted in October 2014 and reflects the staff's plans as of that date. These plans are tentative and subject to change.