

## Regulatory Guide Periodic Review

**Regulatory Guide Number:** 8.20, Revision 2

**Title:** Applications of Bioassay for Radioiodine

**Office/division/branch:** RES/DSA/RPB  
**Technical Lead:** Casper Sun

**Staff Action Decided:** Reviewed with no issues identified.

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

RG 8.20, Revision 2, "Applications of Bioassay for Radioiodine," was issued in September 2014, to provide an update for better alignment with: (1) 10 CFR Part 20, "Standards for Protection Against Radiation," and (2) the internal dose assessment methods recommended by the International Commission on Radiological Protection (ICRP) Publication 30, "Limits for Intakes of Radionuclides by Workers." Also, it provides predetermined action levels (PALs) specified in the Staff Regulatory Guidance section of the RG. In addition, this revision provides updated guidance for iodine-131, iodine-123, iodine-124, iodine-129, and iodine-131.

During this 10-year periodic review of RG 8.20, no technical or regulatory issues were identified. The methods used in the guide are still in accordance with 10 CFR 20.1502, "Conditions requiring individual monitoring of external and internal occupational dose," as well as the radiation protection and monitoring requirements outlined in 10 CFR 20.1204(c)(1), "Determination of internal exposure," and 10 CFR 20.1703(a)(3)(ii), "Use of individual respiratory protection equipment."

**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?**

None.

**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?**

Not applicable.

**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 no issues identified.

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

Not applicable.

**NOTE: This review was conducted and completed in September 2024 and reflects the staff's plans as of that date. These plans are tentative and are subject to change.**