

Regulatory Guide Periodic Review

Regulatory Guide Number: 8.21 Revision 1

Title: Health Physics Surveys for Byproduct Material at NRC-Licensed Processing and Manufacturing Plants

Office/Division/Branch: RES/DSA/RPB

Technical Lead: Don Lowman

Recommended Staff Action: Withdraw

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

RG 8.21 Revision 1 was issued in October 1979 to provide the types and frequencies of surveys that are acceptable to the NRC staff for use in plants licensed by the NRC for processing byproduct material or manufacturing such material for distribution and comply with the regulations in Title 10 of the *Code of Federal Regulations* Part 20 (10 CFR 20), "Standards for Protection Against Radiation." The regulations in 10 CFR Part 20 require that each licensee make, or cause to be made, such surveys as may be necessary to comply with the regulations.

Regulatory Guide 8.21 has not been revised since 1979 and contains outdated guidance including the following:

- The citations to the regulations described in RG 8.21 are not consistent with those listed in the 1991 revision of 10 CFR 20 (which is the latest revision of 10 CFR Part 20).
- Several of the references are outdated (e.g., References 1, 2, and 3 are from the 1950s).
- Copies of some other references are not available.
- The survey techniques are outdated.

Although RG 8.21 has not been revised since 1979, the staff has incorporated advanced surveys and measurement techniques that have been developed in the recent years in NUREG-1556, "Consolidated Guidance About Materials Licenses," specifically, NUREG-1556, Volume 12, Revision 1, "Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution."

A periodic review of RG 8.21 was also performed in March 2023 and a determination was made to revise the RG. However, after further assessment the staff has concluded that this RG should be withdrawn.

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 will be no impact on licensing and inspection activities since the guidance for the

advanced survey/measurement techniques and other more recent survey procedures are currently included in NUREG-1556, Volume 12.

- 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)?**

Withdraw.

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

As discussed in Management Directive (MD) 6.6, "Regulatory Guides," the NRC staff reviews RGs periodically to ensure that these guides continue to provide useful guidance. Since there is guidance already in NUREG-1556 regarding "Health Physics Surveys for Byproduct Material at NRC-Licensed Processing and Manufacturing Plants," the staff is planning to withdraw this RG in the next 4 months.

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