

Regulatory Guide Periodic Review

Regulatory Guide Number: **5.37**

Revision: **1**

Title: **In Situ Assay of Enriched Uranium Residual Holdup
(October 1983)**

Office/Division/Branch: **NMSS/FCSE/MCAB**

Technical Lead: **Suzanne Ani**

Recommended Staff Action: **Reviewed with issues identified for future
consideration**

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

This RG was issued in October 1983, to describe acceptable procedures for the measurement of residual holdup remaining in and about process equipment and handling areas after those collection areas had been prepared for inventory. The RG references specific material control and accounting (MC&A) requirements set forth in 10 CFR 70, "Domestic Licensing of Special Nuclear Material."

However, in 2002, the MC&A requirements of 10 CFR 70 were transferred to 10 CFR Part 74, "Material Control and accounting of Special Nuclear Material." As a result, RG 5.37 is not cross-referencing to the correct regulatory citations.

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?

Current licensees routinely account for material holdup in process equipment during their physical inventory takings. Additionally, current MC&A guidance in NUREG documents (e.g., NUREG-1280, "Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Strategic Special Nuclear Material," and NUREG-1065, "Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Special Nuclear Material of Low Strategic Significance," for Category I, "High Enriched Uranium" fuel cycle facilities, and Category III, "Low Enriched Uranium," fuel cycle facilities, respectively) include additional information on process holdup.

As no significant technical issues were identified, there is no impact to internal or external stakeholders resulting from the revision of the regulations. However, new applicants should be aware of the administrative change in numbering of the CFR.

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?

An estimate of the effort needed to correct the identified issues is between 0.10 full-time equivalent (FTE) and 0.20 FTE.

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 issues identified for future consideration.

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 approximately every 5 years to ensure that these guides continue to provide useful guidance. The staff will consider the regulatory citation issues and any other technical information that may need to be updated during the next periodic review of the guide.

NOTE: This review was conducted in July 2016, and reflects the staff's plans as of that date. These plans are tentative and subject to change.