

Regulatory Guide Periodic Review

Regulatory Guide Number: 3.56, Revision 0

Title: General Guidance for Designing, Testing, Operating, And Maintaining Emission Control Devices at Uranium Mills

Office/Division/Branch: NMSS/DUWP/URLB
Technical Lead: Anthony Huffert

NRC Staff Action Decided: Revise

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

RG 3.56 was issued in May 1986. Since 1986, Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20, "Standards for Protection Against Radiation," has been revised and consequently some of the citations to the regulations are incorrect in RG 3.56. Other references in the RG should be updated as well.

This RG has been used by the U.S. Nuclear Regulatory Commission (NRC) and Agreement State regulatory staff and applicants for implementing the requirements of 10 CFR 40, Appendix A, "Criteria Relating to the Operation of Uranium Mills and the Disposition of Tailings or Wastes Produced by the Extraction or Concentration of Source Material From Ores Processed Primarily for their Source Material Content," Criterion 8, regarding reductions of airborne effluent releases. The RG is referenced in NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications," for evaluating license applications, renewals and amendments.

RG 3.56 does not include the changes in yellowcake low-temperature vacuum dryer technology and more recent uranium milling technologies. Components of air effluent controls on low-temperature vacuum dryers that are not addressed in RG 3.56 include condensers, vacuum pumps, and seal water separators.

In addition, the RG should include a discussion of emission control devices used for more recent uranium mill technologies, such as in-situ recovery, heap leach, and ablation, and an updated reference section.

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 is no impact on NRC licensing reviews since the NRC staff does not anticipate any new or renewal applications in the next several years. However, if an application is received for technical review by an Agreements State in the next several years, a potential impact is that a lack of an updated guidance on effluent control systems could result in the expenditure of additional resources by the NRC staff and the applicant to obtain information needed for the technical review.

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- 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 estimate level of effort needed to address the identified issues is between 0.1 and 0.2 FTE.

- 4. Based on the answers to the questions above, what is the NRC 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.**

The conceptual plan is to develop a draft guide for publication by the 4th quarter of Calendar Year 2019, as resources permit, and should be submitted to the Office of Nuclear Regulatory Research for processing by May 2019. Publication for public comments is anticipated approximately three months after submittal to RES.

The revision of RG 3.56 will begin after the revisions of RG 8.30, "Health Physics Surveys in Uranium Recovery Facilities," and RG 4.14, "Radiological Effluent and Environmental Monitoring at Uranium Mills," are initiated.

NOTE: This review was conducted in May 2018 and reflects the NRC staff plans as of that date. These plans are tentative and are subject to change.