

Regulatory Guide Periodic Review

Regulatory Guide Number: **3.71, Revision 2**

Title: **Nuclear Criticality Safety Standards for Fuels and Material Facilities**

Office/Division/Branch: **NMSS/FCE/PORSB**
Technical Lead: **Christopher Tripp**

Staff Action Decided: **Revise**

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

RG-3.71, which dates to December 2010, provides license applicants, and licensees authorized pursuant to Title 10 of the Code of Federal Regulations, Part 70 (10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"), and certificate holders authorized pursuant to 10 CFR Part 76, "Certification of Gaseous Diffusion Plants," with updated guidance concerning criticality safety standards that the U.S. Nuclear Regulatory Commission (NRC) has endorsed for use in nuclear fuels and material facilities.

Therefore, there are no technical or regulatory issues with the current version of the RG.

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 not impact since there are no known technical or regulatory issues.

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. Since there are no technical or regulatory issues with the current version of the RG, the level of effort is 0 FTE and 0 contract dollars.

NRC staff and not contractor resources should be used. There are currently 17 ANSI/ANS-8 Series standards endorsed in whole or in part by RG-3.71. In addition, there are about six NCS-related ISO standards that the staff considers valuable to review for regulatory acceptability. RG-3.71 is currently on a 5-year review cycle, and it is estimated that that up to five new standards or new versions of existing standards may have come out since its last revision. The staff has been involved as representatives on the standards committees, and as a result, should already have a working knowledge of the changes. It is therefore anticipated that only about 80 hours of staff time would be needed to complete a review for the ANSI/ANS-8 Series standards, and perhaps 2 months for the ISO standards, which have not previously been endorsed. That represents a total of about 400 hours, or 0.2 FTE for technical staff review.

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)?**

The staff recommends that this RG be revised.

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

RG-3.71 is on a 5-year review cycle; it was last revised in December 2010. This is a low-priority item compared to inspection and licensing work. The recommended plan is as follows:

- a. Ask the existing ANSI/ANS-8 Series standards representatives to review the current versions and identify if there are any changes needed to RG-3.71.
- b. Distribute the ISO standards to the technical staff for a similar review.
- c. Prepare a draft and circulate it among the NCS specialists (through the NCS Technical Advisory Group).
- d. Resolve comments and prepare a draft Revision 3 of RG-3.71 by the end of February 2016.

NOTE: This review was conducted in November 2015 and reflects the staff's plans as of that date. These plans are tentative and subject to change.