



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2017-0057]

Physical Inventories and Material Balances at Fuel Cycle Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft regulatory guide; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment draft regulatory guide (DG), DG- 5056, “Physical Inventories and Material Balances at Fuel Cycle Facilities.” This new regulatory guide (RG) would provide implementing guidance for material control and accounting (MC&A) requirements in NRC regulations related to the performance, evaluation, and reporting of physical inventories of special nuclear material, and material balances at fuel cycle facilities. Guidance on these requirements was previously provided in RG 5.13, “Conduct of Nuclear Material Physical Inventories,” and RG 5.33, “Statistical Evaluation of Material Unaccounted For,” that were issued in 1973 and 1974, respectively. Both RG 5.13 and RG 5.33 would be withdrawn concurrent with issuance of DG-5056 in final form.

DATES: Submit comments by **[INSERT DATE: 60 DAYS AFTER THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date. Although a time limit is given, comments and

suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specified subject):

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2017-0057**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop: OWFN-12H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on accessing information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Glenn Tuttle, Office of Nuclear Material Safety and Safeguards, 301-415-7230, e-mail: Glenn.Tuttle@nrc.gov, or Mekonen Bayssie, Office of Nuclear Regulatory Research, 301-415-1699, e-mail: Mekonen.Bayssie@nrc.gov. Both are staff members of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID **NRC-2017-0057** when contacting the NRC about the availability of information regarding this action. You may obtain publically-available information related to this action, by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2017-0057**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document. The DG-5056 is available in ADAMS under Accession No. ML15268A458.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID **NRC-2017-0057** in your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment

submissions at <http://www.regulations.gov> as well as enters the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

II. Additional Information

The NRC is issuing for public comment a DG in the NRC's "Regulatory Guide Series. This series was developed to describe and make available to the public information regarding methods that are acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques that the staff uses in evaluating specific problems or postulated events, and data that the staff needs in its review of applications for permits and licenses. The DG, entitled "Physical Inventories and Material Balances at Fuel Cycle Facilities," is a proposed new guide, temporarily identified by its task number, DG-5056. This new RG would provide guidance for meeting the nuclear material control and accounting (MC&A) requirements in part 74 of title 10 of the *Code of Federal Regulations* (10 CFR), "Material Control and Accounting of Special Nuclear Material," that cover these topics. The DG-5056 updates guidance previously provided by:

- RG 5.13, "Conduct of Nuclear Material Physical Inventories," published in November 1973; and

- RG 5.33, “Statistical Evaluation of Material Unaccounted For” published in June 1974.

Due to several rulemakings that occurred from 1985 to 2002, which significantly amended the MC&A requirements, the above regulatory guides are now outdated as they no longer cite the correct sections of the regulations. Accordingly, RG 5.13 and RG 5.33 will be withdrawn concurrent with any later issuance of DG-5056 in final form, as DG-5056 would provide the correct citations to the 10 CFR part 74 regulations.

The NRC’s guidance on the MC&A requirements pertaining to the performance, evaluation, and reporting of physical inventories and material balances at fuel cycle facilities is also provided in the following NUREGs that were issued in conjunction with the 1985-2002, MC&A rulemakings:

- NUREG-1280, “Standard Format and Content Acceptance Criteria for the Material Control and Accounting (MC&A) Reform Amendment,” applicable to facilities using formula quantities of strategic SNM.

- NUREG-1065, “Acceptable Standard Format and Content for the Fundamental Nuclear Material Control (FNMC) Plan Required for Low-Enriched Uranium Facilities,” applicable to fuel fabrication facilities using low-enriched uranium.

- NUREG/CR-5734, “Recommendations to the NRC on Acceptable Standard Format and Content for the Fundamental Nuclear Material Control (FNMC) Plan Required for Low-Enriched Uranium Enrichment Facilities,” applicable to uranium enrichment plants.

This DG-5056 incorporates guidance from these NUREGs that relates to physical inventories and material balances for SNM. In addition to providing guidance on these topics, the NUREGs listed above cover other MC&A requirements as well. Accordingly, these NUREGs would not be withdrawn when DG-5056 is issued in final form.

III. Backfitting and Issue Finality

Issuance of DG-5056 in final form would not constitute backfitting as defined in 10 CFR 70.76 or violate the issue finality provisions of part 52 for several reasons. First, many of the provisions in the guidance are only updated to reflect the codification of several MC&A provisions in part 74 from part 70, and do not represent substantive changes. Second, DG-5056 would incorporate relevant guidance from NUREG-1280, NUREG-1065, and NUREG/CR-5734 and associated rulemakings without making substantive changes to those positions; these rulemakings and guidance considered the backfitting implications of any new positions, as appropriate, upon their issuance. Finally, as discussed in the “Implementation” section of DG-5056, applicants and licensees may voluntarily use its guidance to demonstrate compliance with the part 74 MC&A regulations pertaining to the performance, evaluation, and reporting of physical inventories and material balances. Alternate methods of demonstrating such compliance may be deemed acceptable if they provide sufficient basis and information for the NRC staff to verify that the proposed alternative demonstrates compliance with the relevant NRC regulations.

Accordingly, the issuance of this guidance in final form would not constitute a “new” or “different” staff position within the definition of “backfitting” in 10 CFR 70.76 or the issue finality provisions in part 52.

Dated at Rockville, Maryland, this 17th day of February, 2017.

For the Nuclear Regulatory Commission.

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