



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2017-0057]

**Regulatory Guide: “Physical Inventories and Material Balances at
Fuel Cycle Facilities”**

AGENCY: Nuclear Regulatory Commission.

ACTION: Regulatory guide; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 0 of Regulatory Guide (RG) 5.88, “Physical Inventories and Material Balances at Fuel Cycle Facilities.” This regulatory guide (RG) describes approaches and methods that the staff considers acceptable for licensees and applicants to use when developing material control and accounting (MC&A) system capabilities. This RG pertains to the performance, evaluation, and reporting of physical inventories and material balances at fuel cycle facilities.

DATES: Revision 0 to RG 5.88 is available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

ADDRESSES: Please refer to **Docket ID NRC-2017-0057** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **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.

- **NRC's Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly-available documents online in the ADAMS Public Document 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. Regulatory Guide 5.88 is available in ADAMS under Accession No. ML17167A292. The regulatory analysis supporting Revision 1 is available in ADAMS under Accession No. ML15268A457.

- **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.

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Mekonen.Bayssie@nrc.gov. Both are staff members of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Discussion

The NRC is issuing a new guide 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 agency's regulations, techniques that the NRC staff uses in evaluating specific issues or postulated events, and data that the NRC staff needs in its review of applications for permits and licenses.

Revision 0 of RG 5.88 was issued with a temporary identification of draft Regulatory Guide, DG-5056. The new RG provides updated guidance for uranium enrichment facilities as well as other type of facilities by incorporating relevant guidance from three NUREGs without making substantive changes to that guidance.

The RG is titled "Physical Inventories and Material Balances at Fuel Cycle Facilities," provides 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.

Regulatory Guide 5.88 updates and combines in one document 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 became outdated as they no longer cite the correct sections of the regulations. Accordingly, RG 5.13 and RG 5.33 are being withdrawn concurrent with the issuance of RG 5.88, which provides 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 special nuclear material (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.

The RG 5.88 incorporates guidance from these NUREGs that relates to physical inventories and material balances for strategic SNM. In addition to providing guidance on these topics, the NUREGs listed above cover other MC&A requirements as well. Accordingly, these NUREGs are not being withdrawn.

II. Additional Information

The NRC published a notice of the availability of DG-5056 in the *Federal Register* on February 24, 2017 (82 FR 11661) for a 60-day public comment period. The public comment period closed on April 25, 2017. There were no public comments received on DG-5056.

III. Congressional Review Act

This RG is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

IV. Backfitting and Issue Finality

Issuance of RG 5.88 in final form would not constitute backfitting as defined in 10 CFR 70.76. As discussed in the “Implementation” section of RG 5.88, the NRC has no current intention to impose this guidance on holders of part 70 licenses. Additionally, RG 5.88 incorporates relevant guidance from NUREG-1280, NUREG-1065, and NUREG/CR-5734 without making substantive changes to that guidance. Accordingly, the issuance of RG 5.88 does not constitute a “new” or “different” staff position within the definition of “backfitting” in 10 CFR 70.76.

Dated at Rockville, Maryland, this 20th day of September, 2017.

For the Nuclear Regulatory Commission.

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