



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2017-0183]**

**Nuclear Criticality Safety Standards for  
Nuclear Materials Outside Reactor Cores**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Regulatory guide; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 3 to Regulatory Guide (RG) 3.71, "Nuclear Criticality Safety Standards for Nuclear Materials Outside Reactor Cores." Revision 3 endorses guidance in multiple American National Standards Institute/American Nuclear Society (ANSI/ANS)-8 standards, as well as a specific International Organization for Standardization (ISO) Standard. In addition, the scope of this guide is expanded to include packaging and transportation and certain storage facilities because many of the standards are based on broad principles that are not limited solely to fuel processing facilities.

**DATES:** Revision 3 to RG 3.71 is available on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2017-0183** 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-2017-0183**. Address questions about NRC dockets to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@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 Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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](mailto: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. Revision 3 to RG 3.71 and the regulatory analysis may be found in ADAMS under Accession Nos. ML18169A258 and ML17055B588, respectively.

- **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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## **SUPPLEMENTARY INFORMATION:**

### **I. Discussion**

The NRC is issuing a revision to an existing 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 3 to RG 3.71 describes procedures for preventing nuclear criticality accidents in operations that involve handling, processing, storing, or transporting special nuclear materials (or a combination of these activities).

Revision 3 was issued with a temporary identification of Draft Regulatory Guide, (DG)-3053, "Nuclear Criticality Safety Standards for Nuclear Materials outside Reactor Cores," (ADAMS Accession No. ML17055B591).

This revision endorses the most recent American National Standards Institute (ANSI)-approved versions of American Nuclear Society (ANS) Subcommittee-8 (ANSI/ANS-8) standards, as well as ISO Standard 7753:1987, "Nuclear Energy—Performance and Testing Requirements for Criticality Detection and Alarm Systems." In addition, the scope of this guide is expanded beyond 10 CFR part 70 fuel facilities to include packaging and transportation under 10 CFR part 71 and storage facilities under

10 CFR part 72, because many of the standards are based on broad principles that are not limited solely to fuel processing facilities.

## **II. Additional Information**

The NRC published a notice of the availability of DG-3053 in the *Federal Register* on August 24, 2017 (82 FR 40173), for a 60-day public comment period. The public comment period closed on October 23, 2017. Public comments on DG-3053 and the staff responses to the public comments are available under ADAMS under Accession No. ML18169A253.

## **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**

This RG provides updates based on changes to ANSI/ANS standards, as well as endorsing an ISO standard, and expands the scope of the RG beyond 10 CFR part 70 to include 10 CFR part 71 and 10 CFR part 72 licensees. Issuance of RG 3.71 would not constitute backfitting under 10 CFR part 70 or 10 CFR part 72. As discussed in the “Implementation” section of this RG, the NRC has no current intention to impose the RG on current holders of 10 CFR part 70 or 10 CFR part 72 licenses. The RG could be applied to applications for licenses issued under 10 CFR part 70 or 10 CFR part 72 or amendments thereto. Such action would not constitute backfitting as defined in 10 CFR 70.76 or 10 CFR 72.62, inasmuch as such applicants are not within the scope of

entities protected by 10 CFR 70.76 or 10 CFR 72.62. Backfit and issue finality considerations do not apply to licensees and applicants under 10 CFR part 71.

Dated at Rockville, Maryland, this 27<sup>th</sup> day of September, 2018.

For the Nuclear Regulatory Commission.

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