[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2021-0133]

Use of ARCON Methodology for Calculation of Accident-Related Offsite Atmospheric Dispersion Factors

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-4030, "Use of ARCON Methodology for Calculation of Accident-Related Offsite Atmospheric Dispersion Factors." This proposed new regulatory guide (RG) describes an approach for reactor applicants and licensees for determining atmospheric relative concentration (χ/Q) values in support of modeling onsite releases to offsite boundaries from a design-basis accident. Also, this proposed guidance implements the methodology in RG 1.194, "Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants," for offsite dose locations at boundaries.

DATES: Submit comments by **September 17, 2021.** 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; however, the NRC encourages electronic comment submission through the **Federal Rulemaking**

Website:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID **NRC-2021-0133**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; e-mail: Stacy.Schumann@nrc.gov. For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

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: Jason White, Office of Nuclear Reactor Regulation, telephone: 301-415-3212, email: Jason.White@nrc.gov, Kevin Quinlan, Office of Nuclear Reactor Regulation, telephone: 301-415-6809, email: Kevin.Quinlan@nrc.gov, or Harriet Karagiannis, Office of Nuclear Regulatory Research, telephone: 301-415-2493, email: Harriet.Karagiannis@nrc.gov. All are staff 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-2021-0133** when contacting the NRC about the availability of information regarding this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and

search for Docket ID **NRC-2021-0133**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://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.

- **Attention**: The PDR, where you may examine, and order copies of public documents, is currently closed. You may submit your request to the PDR via e-mail at pdr.resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal Rulemaking Website** (https://www.regulations.gov). Please include Docket ID **NRC-2021-0133** in your comment submission.

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 will post all comment submissions at https://www.regulations.gov as well as enter 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 methods that are acceptable to the NRC staff for implementing specific parts of the agency’s regulations, to explain techniques that the staff uses in evaluating specific issues or postulated events, and to describe information that the staff needs in its review of applications for permits and licenses.

This DG, identified by its task number, DG-4030, titled, “Use of ARCON Methodology for Calculation of Accident-Related Offsite Atmospheric Dispersion Factors,” is a proposed new RG 4.28 (ADAMS Accession No. ML21165A005). This proposed new RG 4.28 provides guidance to industry for complying with and implementing the NRC requirements by endorsing the use of the ARCON computer code to calculate offsite dispersion values out to distances of 1200 m (3937 ft) that could include the exclusion area boundary and/or low-population zone.

RG 1.194 (ADAMS Accession No. ML031530505) endorses the use of the ARCON96 computer code for calculating accident-related onsite (control room and technical support center) atmospheric dispersion values which are direct inputs to habitability dose assessments. In addition, RG 1.145, “Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants” (ADAMS Accession No. ML12216A014), provides the present methodology incorporated into the PAVAN computer code, as reviewed by the staff using NUREG-0800 at https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/index.html (ADAMS Accession No. ML070810350), SRP Section 2.3.4 for calculating accident-related related, offsite atmospheric dispersion values.

RG 4.28 will provide new guidance for applicants and licensees subject to Part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), "Domestic Licensing of Production and Utilization Facilities"; 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants"; and 10 CFR Part 100, "Reactor site criteria."

The staff is also issuing for public comment a draft regulatory analysis (ADAMS Accession No. ML21165A007). The staff develops a regulatory analysis to assess the value of issuing or revising a regulatory guide as well as alternative courses of action.

III. Backfitting, Forward Fitting, and Issue Finality

Issuance of DG-4030, if finalized, would not constitute backfitting as that term is defined in 10 CFR 50.109, "Backfitting" and as described in NRC Management Directive (MD) 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests"; constitute forward fitting as that term is defined and described in MD 8.4; or affect issue finality of any approval issued under 10 CFR Part 52. As explained in DG-4030, applicants and licensees are not required to comply with the positions set forth in DG-4030.

Dated: August 10, 2021.

For the Nuclear Regulatory Commission.

/RA/

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Management Branch,
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