



NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50, 52, and 100

[NRC-2023-0153]

Draft Regulatory Guide: General Site Suitability Criteria for Nuclear Power Stations

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft guide; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment a draft regulatory guide (DG), DG-4034, "General Site Suitability Criteria for Nuclear Power Stations." This DG is a proposed Revision 4 for Regulatory Guide (RG) 4.7 of the same name which describes the major site characteristics related to public health and safety and environmental issues that the NRC staff considers in determining the suitability of sites for commercial nuclear power stations.

DATES: Submit comments by [INSERT DATE 30 DAYS AFTER 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.

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-2023-0153**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: 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 obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Belkys Sosa, Office of Nuclear Reactor Regulation, telephone: 301-415-3357; email: Belkys.Sosa@nrc.gov and Edward O’Donnell, Office of Nuclear Regulatory Research, telephone: 301-415-3317; email: Edward.Odonnell@nrc.gov. Both 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-2023-0153** when contacting the NRC about the availability of information for 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-2023-0153**.

- **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, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The DG-4034, “General Site Suitability Criteria for Nuclear Power Stations” is available in ADAMS under Accession No. ML23123A090.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (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-2023-0153** 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 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, entitled "General Site Suitability Criteria for Nuclear Power Stations," is temporarily identified by its task number, DG-4034.

This proposed revision to RG 4.7 implements the Commission approved alternative population-related criteria in SRM-SECY-20-0045, "Population-Related Siting Considerations for Advanced Reactors," (ADAMS Accession No. ML22194A885) through the addition of Appendix A. It provides alternatives to demonstrate compliance with paragraph 100.21(h) of title 10 of the *Code of Federal Regulations* (10 CFR) in determining the suitability of sites for commercial nuclear power stations to support licensing for non-light-water reactors (LWRs) and light-water small modular reactors with attributes that could support siting a commercial nuclear power station closer to population centers than large LWRs typically have been sited. Appendix A retains the regulatory requirements in 10 CFR part 100 that call for licensees to establish an exclusion area, a low population zone, and a minimum distance to the nearest densely populated center containing more than 25,000 residents. In addition, Appendix A introduces a new graded approach where instead of locating a reactor in an area where the population density does not exceed 500 persons per square mile out to 20 miles from the reactor, an applicant can demonstrate compliance with 10 CFR 100.21(h) by siting a nuclear reactor in a location where the population density does not exceed 500 persons per square mile out to a distance equal to twice the distance at which a hypothetical individual could receive a calculated total effective dose equivalent of 1 rem over a period of 1 month from the release of radionuclides following postulated accidents.

In addition, proposed Revision 4 restructures RG 4.7 to remove repetition found in Revision 3 by consolidating materials from the Discussion section and the two tables in Revision 3 of the RG into Section C, "Staff Regulatory Guidance." To improve clarity and cohesiveness each topic in Section C was structured to list (1) relevant statutes and regulations, (2) related guidance, and (3) considerations, regulatory experience, and staff position.

The staff is also issuing for public comment a draft regulatory analysis (ADAMS Accession No. ML23123A095). The staff developed a regulatory analysis to assess the value of issuing or revising a regulatory guide as well as alternative courses of action.

As noted in the *Federal Register* on December 9, 2022 (87 FR 75671), this document is being published in the “Proposed Rules” section of the *Federal Register* to comply with publication requirements under 1 CFR chapter I.

III. Backfitting, Forward Fitting, and Issue Finality

Issuance of this DG does not constitute backfitting as 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,” would not affect the issue finality of any approval issued under 10 CFR part 52; and would not constitute forward fitting as that term is defined and described in MD 8.4.

If finalized, this regulatory guide will not apply to any construction permits, operating licenses, early site permits, limited work authorizations issued under 10 CFR 50.10, or combined licenses, for which the NRC issued a final environmental impact statement (EIS) preceded by a draft EIS under 10 CFR 51.76 or 51.75, any of which were issued by the NRC prior to issuance of the final regulatory guide. The NRC has already completed its siting determination for those construction permits, operating licenses, early site permits, limited work authorizations, and combined licenses. Therefore, no further NRC regulatory action on siting will occur for those licenses, permits, and authorizations, for which the guidance in the regulatory guide would be relevant.

The methods described in this proposed RG will be used in evaluating applications for construction permits, early site permits, combined operating licenses and limited work authorizations, which includes information under 10 CFR 51.49(b) or (f), with respect to compliance with applicable regulations governing the siting of new nuclear power plants and testing facilities, unless the applicant proposes an acceptable alternative method for complying with those regulations. Methods that differ from those

described in this proposed RG may be deemed acceptable if the applicant provides sufficient basis and information for the NRC staff to verify that the proposed alternative complies with the applicable NRC regulations.

IV. Submitting Suggestions for Improvement of Regulatory Guides

A member of the public may, at any time, submit suggestions to the NRC for improvement of existing RGs or for the development of new RGs. Suggestions can be submitted on the NRC's public website at <https://www.nrc.gov/reading-rm/doc-collections/reg-guides/contactus.html>. Suggestions will be considered in future updates and enhancements to the "Regulatory Guide" series.

Dated: October 13, 2023.

For the Nuclear Regulatory Commission.

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