



NUCLEAR REGULATORY COMMISSION

[NRC-2024-0217]

Interim Staff Guidance: Content of Risk Assessment and Severe Accident Information in Light-Water Power Reactor Construction Permit Applications

AGENCY: Nuclear Regulatory Commission.

ACTION: Final guidance; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing Interim Staff Guidance (ISG) DRA-ISG-2026-01, “Content of Risk Assessment and Severe Accident Information in Light-Water Power Reactor Construction Permit Applications” to clarify the scope and depth of the NRC staff review of the description of risk assessment and severe accident information in the Preliminary Safety Analysis Report (PSAR) for a light-water power reactor (LWR) construction permit (CP) application that uses risk assessment and severe accident information. The NRC is aware of one applicant’s interest in submitting a CP application within the next few years, and this guidance is applicable to the review of all applications for a CP for a LWR but not to non-LWR applications.

DATES: This guidance is effective on **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Please refer to Docket ID **NRC-2024-0217** 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 Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2024-0217**. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual(s) 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 <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin ADAMS Public 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 final ISG for the “Content of Risk Assessment and Severe Accident Information in Light-Water Power Reactor Construction Permit Applications” is available in ADAMS under Package Accession No. ML25099A047.

- **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.

FOR FURTHER INFORMATION CONTACT: India Banks, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone: 301-287-0787; email: India.Banks@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On January 16, 2025 (90 FR 4806), the staff requested public comments on the draft ISG, DRA-ISG-2024-XX, “Content of Risk Assessment and Severe Accident Information in Light-Water Power Reactor Construction Permit Applications.” The NRC issued the draft ISG in anticipation of the submission of power-reactor CP applications over the next few years based on preapplication engagement initiated by several prospective applicants. The review of these applications falls within the two-step licensing process outlined in part 50 of title 10 of *the Code of Federal Regulations* (10

CFR) “Domestic Licensing of Production and Utilization Facilities,” and involves the issuance of a CP before an operating license (OL).

The NRC last issued a power reactor CP in the 1970s. Most recently, the NRC issued combined licenses (COLs) for power reactors through the one step licensing process under 10 CFR part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” using the guidance in NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition” (<https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/cover/index.html>); and Regulatory Guide (RG) 1.206, “Combined License Applications for Nuclear Power Plants (LWR Edition),” issued June 2007 (ADAMS Package Accession No. ML070720184). The NRC has periodically updated some of the standard review plan (SRP) guidance and issued Revision 1 to RG 1.206, “Applications for Nuclear Power Plants,” in October 2018 (ADAMS Package Accession No. ML18131A181).

The licensing process under 10 CFR part 50 allows an applicant to begin construction with preliminary design information instead of the final design required for a COL under 10 CFR part 52. Although the two-step licensing process provides flexibility and allows a more limited safety review before construction, the design has less finality before the applicant commits to construction of the facility. The final safety analysis report (FSAR) submitted with the OL application should describe in detail the final design of the facility as constructed; identify the changes from the criteria, design, and bases in the CP PSAR; and discuss the bases for, and safety significance of, the changes from the PSAR. Before issuing an OL, the NRC staff will review the applicant’s final design in the FSAR to determine whether all the Commission’s safety requirements have been met.

The SRP contains the NRC staff review guidance for light-water power reactor applications submitted under 10 CFR part 50 or 10 CFR part 52. In addition to the CP review guidance in the SRP, RG 1.70, “Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants: LWR Edition,” Revision 3, issued November 1978

(ADAMS Package Accession No. ML011340122), offers some insights on the level of detail that is required for the PSAR in support of the CP application, but these insights may be limited to the degree that the guidance does not account for subsequent requirements, NRC technical positions, or advances in technical knowledge. Regulatory Guide 1.206 provides guidance for 10 CFR part 52 applications, including for early site permits and COLs, and includes insights on the level of detail needed for final design information if the CP applicant chooses to provide such information.

On October 31, 2022, the NRC staff issued ISG DNRL-ISG-2022-01, "Safety Review of Light-Water Power Reactor Construction Permit Applications," (ADAMS Accession No. ML22189A099), to facilitate safety reviews of LWR CP applications and to supplement the guidance in the SRP. DNRL-ISG-2022-01 describes the regulatory requirements, applicable review guidance in the SRP, and special topics for an LWR CP application. DNRL-ISG-2022-01 provides guidance on the staff review of the preliminary design information in the PSAR including the description and safety assessment of the site on which the facility is to be located. DNRL-ISG-2022-01 does not provide specific information relevant to the review of probabilistic risk assessment and alternative risk evaluations supporting an LWR CP application but points generally to the SRP to provide the NRC staff with an acceptable approach for reviewing such information. The staff has developed this ISG to clarify the scope and depth of the staff review of the description of risk assessment and severe accident information in the PSAR for a light-water power reactor CP application that uses risk assessment and severe accident information.

The comments received by the NRC on the draft ISG are identified, summarized, and considered in Appendix A, "Resolution of Public Comments on Draft Interim Staff Guidance DRA-ISG-2026-01, 'Content of Risk Assessment and Severe Accident Information in Light-Water Power Reactor Construction Permit Applications'" (ADAMS Accession No. ML25099A053).

II. Backfitting, Forward Fitting, and Issue Finality

This ISG provides guidance for the NRC staff review of light-water power reactor construction permit applications. Issuance of this final ISG would not constitute backfitting as defined in 10 CFR 50.109 (the Backfit Rule) and as described in NRC Management Directive (MD) 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests”; would not constitute forward fitting as that term is defined and described in MD 8.4; and would not affect the issue finality of any approval issued under 10 CFR part 52. The guidance would not apply to any current licensees or applicants or existing or requested approvals under 10 CFR part 52, and therefore its issuance cannot be a backfit or forward fit or affect issue finality.

III. Congressional Review Act

This ISG 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. Executive Order 12866, Regulatory Planning and Review

Executive Order 12866, “Regulatory Planning and Review,” dated September 30, 1993, provides that the Office of Information and Regulatory Affairs determine whether a regulatory action is significant as defined by Executive Order 12866 and will review significant regulatory actions. The Office of Information and Regulatory Affairs determined that this final ISG is not a significant regulatory action under Executive Order 12866.

Dated: January 26, 2026.

For the Nuclear Regulatory Commission.

Michele Sampson,
Director,
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Office of Nuclear Reactor Regulation.