

NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[NRC-2025-0018]

RIN 3150-AL26

Revising the Duration of Design Certifications

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its regulations to revise the duration of design certifications (DCs). Specifically, this direct final rule replaces the 15-year duration for DCs with a 40-year duration period, both for existing DCs currently in effect and generically for future DCs, including renewals. This direct final rule does not change the date of issuance or renewal for existing DCs (i.e., the start date by which an existing DC may be referenced remains unchanged). This direct final rule also incorporates a minor editorial correction.

DATES: The final rule is effective September 15, 2025, unless significant adverse comments are received by August 1, 2025. If the direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*.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. Comments received on this direct final rule will also be considered to be

comments on the companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*.

ADDRESSES: You may submit comments by any of the following; 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-2025-0018. Address questions about NRC dockets to Helen Chang; telephone: 301-415-3228; email: Helen.Chang@nrc.gov. For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Email comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic email reply confirming receipt, then contact us at 301-415-1677.

- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.

- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. eastern time, Federal workdays; telephone: 301-415-1677.

You can read a plain language description of this direct final rule at <https://www.regulations.gov/docket/NRC-2025-0018>. 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: Daniel Doyle, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-3748, email: Daniel.Doyle@nrc.gov; or Jordan Glisan, Office of Nuclear Reactor Regulation, telephone: 301-415-3478, email: Jordan.Glisan@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

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I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2025-0018 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-2025-0018.

- **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. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section of this document.

- **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, Monday through Friday, except Federal holidays.

- **Technical Library:** The Technical Library, which is located at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland 20852, is open by appointment only. Interested parties may make appointments to examine documents by contacting the NRC Technical Library by email at Library.Resource@nrc.gov between 8 a.m. and 4 p.m. eastern time, 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-2025-0018 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. Rulemaking Procedure

Because the NRC considers this action to be non-controversial, the NRC is using the “direct final rule procedure” for this rule. This amendment is effective on September 15, 2025. However, if the NRC receives significant adverse comments on this direct final rule by August 1, 2025, then the NRC will publish a document that withdraws this action and will address the comments received in a subsequent final rule or as otherwise appropriate. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule’s underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC staff to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC staff.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC staff to make a change (other than editorial) to the rule.

For detailed instructions on filing comments, please see the ADDRESSES section of this document.

III. Background

A standard design certification, also referred to simply as a design certification (DC), is a Commission approval by regulation of a final standard design for a nuclear power facility. A DC is codified via rulemaking and is independent of a specific site or an application to construct or operate a plant. An application to construct or operate a plant may reference a DC to take advantage of reviews previously completed by the NRC, though such an application must still address certain site-specific matters. The NRC's regulations governing DCs are codified in part 52 of title 10 of the *Code of Federal*

Regulations (10 CFR), Subpart B, “Standard Design Certifications,” and specific DCs are published as appendices to part 52.

In this direct final rule, the NRC is amending its regulations to revise the duration of DCs, as approved by the Commission in Staff Requirements Memorandum (SRM)-COMDAW-24-0001, “Revising the Duration of Design Certifications,” dated November 14, 2024. Specifically, this direct final rule replaces the 15-year duration period for initial DCs and renewals with a 40-year duration period, both generically and for each DC currently in effect. For DCs currently in effect, the respective date of issuance or renewal (i.e., the start date by which a DC may be referenced) remains unchanged by this direct final rule. Otherwise stated, the 40-year duration period starts upon the date of issuance or renewal of the DC.

Five DCs are currently in effect: appendix A to 10 CFR part 52, “Design Certification Rule for the U.S. Advanced Boiling Water Reactor,” appendix D to 10 CFR part 52, “Design Certification Rule for the AP1000 Design,” appendix E to 10 CFR part 52, “Design Certification Rule for the ESBWR Design,” appendix F to 10 CFR part 52, “Design Certification Rule for the APR1400 Design,” and appendix G to 10 CFR part 52, “Design Certification Rule for NuScale.” Two DCs have expired because no timely renewal applications were submitted in accordance with § 52.57, “Application for renewal.” These are appendix B to 10 CFR part 52, “Design Certification Rule for the System 80 + Design,” and appendix C to 10 CFR part 52, “Design Certification Rule for the AP600 Design.” Accordingly, this direct final rule applies to the five DCs currently in effect and does not apply to the two expired DCs.

IV. Discussion

The NRC is amending its regulations to revise the duration of DCs by replacing the 15-year duration for initial DCs and renewals with a 40-year duration period, both generically and for each DC currently in effect, as approved by the Commission in SRM-COMDAW-24-0001, “Revising the Duration of Design Certifications.”¹ The NRC is revising these regulations based on lessons learned from carrying out the DC renewal process. These amendments will reduce unnecessary regulatory burden on applicants and save NRC resources without any reduction in safety or security.

As discussed in the 1989 final rule promulgating 10 CFR part 52, the 15-year duration for DCs was originally intended to allow actual operating experience with a given design to accumulate before the DC either expires or becomes eligible for renewal (54 FR 15372; April 18, 1989). However, experience has shown that the current 15-year certification period does not allow for sufficient time for such operating experience to accumulate prior to a DC either expiring or needing to be renewed to remain effective. In this situation, both the DC renewal applicant and the NRC expend resources involved with the submittal and review of a DC renewal application that does not reflect additional insights derived from the DC being referenced in the licensing context.

In addition, other existing regulations will continue to ensure that codified DCs and the plants referencing them meet safety and security requirements. With respect to generic changes to DC rules, the Commission has existing criteria under § 52.63(a)(1) for determining when it may modify, rescind, or impose new requirements on the certification information for a previously certified design. For example, one way the Commission may make changes to a DC rule is where the change is “necessary to provide adequate protection of the public health and safety or the common defense and security” (10 CFR 52.63(a)(1)(ii)). The Commission may change a DC rule either on its

own motion or in response to a petition for rulemaking from any person, including design vendors, and such changes will provide for notice and opportunity for public comment (10 CFR 52.63(a)(2)(ii)). For potential plant-specific safety or security issues, the Commission may use plant-specific orders, subject to applicable issue finality provisions (e.g., § 52.63(a)(4) for Tier 1 information). In addition, licensees and applicants who reference a DC may also address potential safety or security concerns using the departure process described in the associated DC rule. That is, all DC rules are codified in appendices to part 52 and are structured such that Section VIII of the associated DC rule appendix prescribes an appropriate process for evaluating potential departures from the DC rule, including via a request for a license amendment or exemption. If NRC approval is required, the NRC would evaluate the request using its typical processes.

Accordingly, the change in duration for DCs will provide more time for a design to be referenced in a license application and more time for the design vendor to accumulate construction and actual operating experience before a design vendor would need to submit a renewal application. In addition, it will reduce unnecessary burdens with no reduction in safety or security. Therefore, the NRC is amending its regulations to change the DC duration to 40 years generically in §§ 52.55, 52.57, and 52.61 as well as for DCs currently in effect in the applicable appendices to 10 CFR part 52.

V. Section-by-Section Analysis

The following paragraphs describe the specific changes proposed by this rulemaking.

Section 52.55 Duration of Certification

This direct final rule revises paragraph (a) to result in a finding that a DC is generically valid for 40 years from the date of issuance.

Section 52.57 Application for Renewal

This direct final rule revises paragraph (a) to conform to the change in Section 52.55.

Section 52.61 Duration of Renewal

This direct final rule revises § 52.61 so that the duration of renewal is not more than 40 years.

Appendix A to Part 52 Design Certification Rule for the U.S. Advanced Boiling Water Reactor

This direct final rule revises section VII so that the appendix can be referenced for a period of 40 years.

Appendix D to Part 52 Design Certification Rule for the AP1000 Design

This direct final rule revises section VII so that the appendix can be referenced for a period of 40 years.

Appendix E to Part 52 Design Certification Rule for the ESBWR Design

This direct final rule revises section VII so that the appendix can be referenced for a period of 40 years.

Appendix F to Part 52 Design Certification Rule for the APR1400 Design

This direct final rule revises section VII so that the appendix can be referenced for a period of 40 years. Additionally, it makes a minor editorial correction in section III.E by replacing the word “entirely” with the word “wholly,” consistent with the corresponding language in the appendices for all other currently effective DCs.

Appendix G to Part 52 Design Certification Rule for NuScale

This direct final rule revises section VII so that the appendix can be referenced for a period of 40 years.

VI. Regulatory Flexibility Certification

Under the Regulatory Flexibility Act (5 U.S.C. 605(b)), the NRC certifies that this rule does not have a significant economic impact on a substantial number of small entities. These amendments will reduce unnecessary regulatory burden on applicants without any reduction in safety or security. This final rule affects only reactor vendors and the licensing and operation of nuclear power plants. These companies do not fall within the scope of the definition of “small entities” set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

VII. Regulatory Analysis

The NRC estimates that the rule results in averted costs of approximately \$56.7 million (7 percent net present value (NPV)) in 2024 dollars to the NRC, licensees, and applicants over the 65-year analysis period (2026–2090). Because the NRC does not currently expect any of these existing designs would be renewed beyond this analysis

period, i.e., due to assumed technological advancements over this time period, the NPV over a perpetual horizon is the same. The annualized cost savings over the 65-year analysis period are approximately \$4.03 million (7 percent NPV) and \$3.89 million (3 percent NPV) per year. The averted costs are roughly evenly distributed between the NRC and industry. The NRC considered all five active DCs being renewed multiple times throughout the analysis period based on staff expectations, with averted renewals due to the first 40-year period. In the first 20 years after the rule becomes effective (2026–2045), the NRC estimates that the new 40-year duration will result in averted costs of \$50.5 million to NRC and industry (7 percent NPV) before the first currently effective DC would either expire or need to be renewed in 2046. The generic change to the duration of DCs would also result in averted costs for future design certification applicants and the NRC because of averted renewals. For example, if a licensee or applicant submits a hypothetical design certification between 2026 and 2030, the NRC estimates that this rule would result in averted costs of approximately \$5.5 million to the NRC and industry, though costs would vary depending on the specific year of submittal (7 percent NPV). Therefore, the cost savings reported above may be an underestimate of the actual cost savings. Based on this analysis, the NRC considers this rule to be cost beneficial to both industry and the NRC.

VIII. Backfitting and Issue Finality

The NRC has determined that this direct final rule does not constitute backfitting as defined in the backfit rule (§ 50.109) and is not inconsistent with any applicable issue finality provision in 10 CFR part 52. Increasing the duration for which a design certification is valid does not affect any previously issued licenses. This rule also does

not modify, rescind, or impose new requirements on the certification information in an existing standard design certification.

IX. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, “Plain Language in Government Writing,” published June 10, 1998 (63 FR 31885).

X. Environmental Assessment and Final Finding of No Significant Environmental Impact

The NRC has determined under the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC’s regulations in subpart A, “National Environmental Policy Act; Regulations Implementing Section 102(2),” of 10 CFR part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions,” that this direct final rule, if confirmed, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The NRC’s environmental assessment and finding of no significant impact is based on the following considerations. As reflected in 10 CFR 51.32(b)(1)-(2) and as discussed in the 2007 final rule amending 10 CFR parts 51 and 52 (72 FR 49352; August 28, 2007), a rule issuing or amending a design certification does not authorize the siting, construction, or operation of a facility referencing any particular design; it only codifies the design in a rule. This codified

finding of no significant impact applies to this rule's changes extending the duration of DCs currently in effect. By the same logic, the NRC also finds that there is no significant impact associated with this rule's changes to 10 CFR 52.55, 52.57, and 52.61 to generically extend the duration of future DCs. The NRC also considered whether extending the duration of existing DCs could impact the agency's NEPA consideration of severe accident mitigation design alternatives (SAMDA) for those DCs. Because this rule does not result in any design changes, the NRC concluded, consistent with 10 CFR 51.30(d), that no additional analysis of SAMDAs was necessary at this time, although the NRC will further consider SAMDAs at future points in the licensing process, as appropriate. The NRC will evaluate the environmental impacts and issue an environmental impact statement as appropriate under NEPA as part of any application for the construction and operation of a facility referencing any particular design certification rule.

The determination of this environmental assessment and finding of no significant impact is that there will be no significant impact from this action. The environmental assessment and finding of no significant impact are available as indicated in the Availability of Documents section.

XI. Paperwork Reduction Act

This final rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information were approved by the Office of Management and Budget (OMB), approval number 3150-0151.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

XII. Regulatory Planning and Review

Executive Order 12866

Executive Order (E.O.) 12866, as amended by E.O.s 14215 (Ensuring Accountability for All agencies) and 13563 (Improving Regulation and Regulatory Review), directs agencies to assess the costs and benefits of available regulatory alternatives, and if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. The Office of Information and Regulatory Affairs (OIRA) has designated this direct final rule “a significant regulatory action” as defined under section 3(f) of E.O. 12866, though not economically significant under 3(f)(1). Accordingly, the NRC submitted this direct final rule to OMB for E.O. 12866 review.

Review Under E.O.s 14154, 14192, 14215, and 14300

The NRC has examined this direct final rule and has determined that it is consistent with the policies and directives outlined in E.O. 14154 “Unleashing American Energy,” E.O. 14192, “Unleashing Prosperity Through Deregulation,” E.O. 14215 “Ensuring Accountability for All Agencies,” and E.O. 14300, “Ordering the Reform of the Nuclear Regulatory Commission.” This direct final rule is considered an E.O. 14192

deregulatory action. We estimate that this rule generates \$4.03 million in annualized costs savings at a 7% discount rate, discounted relative to year 2024, over a perpetual time horizon. Details on the estimated costs of this final rule can be found in Section VII. Regulatory Analysis.

XIII. Congressional Review Act

This final rule is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has found that it does not meet the criteria at 5 U.S.C. 804(2).

XIV. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC will revise the duration of design certifications in 10 CFR part 52. This action does not constitute the establishment of a standard that contains generally applicable requirements.

XV. Availability of Documents

The documents identified in the following table are available to interested persons as indicated.

DOCUMENT	ADAMS Accession No. / <i>Federal Register</i> Citation
Environmental Assessment and Finding of No Significant Impact by the U.S. Nuclear Regulatory Commission Relating to Revising the Duration of Design Certifications, dated May 2025	ML25049A031
SRM-COMDAW-24-0001, “Revising the Duration of Design Certifications,” dated November 14, 2024	ML24319A209
<i>Federal Register</i> notice—Final Rule, “Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors,” dated April 18, 1989	54 FR 15372
<i>Federal Register</i> notice—Final Rule, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” dated August 28, 2007	72 FR 49352
Presidential Memorandum, “Plain Language in Government Writing,” published June 10, 1998	63 FR 31885

Endnotes:

¹ For Appendix D to Part 52, “Design Certification Rule for the AP1000 Design,” this rule replaces the 20-year duration (rather than 15-year duration) with a 40-year duration period. The initial duration period was previously extended from 15 years to 20 years for the AP1000 design by direct final rule (86 FR 52593; September 22, 2021).

List of Subjects in 10 CFR Part 52

Administrative practice and procedure, Antitrust, Combined license, Early site permit, Emergency planning, Fees, Inspection, Issue finality, Limited work authorization, Manufacturing license, Nuclear power plants and reactors, Probabilistic risk assessment, Prototype, Reactor siting criteria, Redress of site, Penalties, Reporting and recordkeeping requirements, Standard design, Standard design certification.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR part 52:

PART 52 – LICENSES, CERTIFICATIONS, AND APPROVALS FOR NUCLEAR POWER PLANTS

1. The authority citation for part 52 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 103, 104, 147, 149, 161, 181, 182, 183, 185, 186, 189, 223, 234 (42 U.S.C. 2133, 2134, 2167, 2169, 2201, 2231, 2232, 2233, 2235, 2236, 2239, 2273, 2282); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); 44 U.S.C. 3504 note.

§ 52.55 [Amended]

2. In § 52.55, amend paragraph (a) by removing the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

§ 52.57 [Amended]

3. In § 52.57, amend paragraph (a) by removing the text “15-year”, wherever it appears, and add, in its place, the text “40-year”.

§ 52.61 [Amended]

4. In § 52.61, remove the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

Appendix A to Part 52 [Amended]

5. In appendix A to 10 CFR part 52, in section VII, remove the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

Appendix D to Part 52 [Amended]

6. In appendix D to 10 CFR part 52, in section VII remove the text “20 years”, wherever it appears, and add, in its place, the text “40 years”.

Appendix E to Part 52 [Amended]

7. In appendix E to 10 CFR part 52, in section VII remove the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

Appendix F to Part 52 [Amended]

8. In appendix F to 10 CFR part 52:

a. In section III.E, remove the word “entirely” wherever it appears, and add, in its place, the word “wholly”.

b. In section VII, remove the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

Appendix G to Part 52 [Amended]

9. In appendix G to 10 CFR part 52, in section VII remove the text “15 years”, wherever it appears, and add, in its place, the text “40 years”.

Dated: June 30, 2025.

For the Nuclear Regulatory Commission.

/RA/

Michael King,
Acting Executive Director for Operations.