



POLICY ISSUE

(Notation Vote)

September 08, 2020

SECY-20-0082

FOR: The Commissioners

FROM: Margaret M. Doane
Executive Director for Operations

SUBJECT: RULEMAKING PLAN TO EXTEND THE DURATION OF THE AP1000 DESIGN
CERTIFICATION

PURPOSE:

The purpose of this paper is to request Commission approval to initiate a rulemaking that would amend Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," to extend the duration of the AP1000 design certification (DC) for an additional 5 years. The AP1000 DC currently expires on February 27, 2021.

SUMMARY:

This rulemaking would extend the duration of the AP1000 DC referenced in Section VII, "Duration of this Appendix," in Appendix D to 10 CFR Part 52 (the AP1000 DC rule). The

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extension would add 5 years to the period that the AP1000 DC is valid for reference¹ by a COL applicant.² The duration extension would align with the extended renewal period previously granted via exemption by the U.S. Nuclear Regulatory Commission (NRC) for the AP1000 DC. With this proposed duration extension, the AP1000 DC would remain valid for reference until February 27, 2026, which would allow sufficient time for the NRC to more broadly consider potential changes to the duration and renewal of future and currently valid DCs in a separate, ongoing rulemaking.³

BACKGROUND:

By letter dated December 2, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16342A975), Westinghouse Electric Company LLC (hereafter referred to as Westinghouse), the designer of the AP1000 and the original DC applicant, requested exemptions related to the renewal of the AP1000 DC. The DC is scheduled to expire on February 27, 2021. The requested exemptions sought to extend from 15 to 20 years the period during which a COL applicant can reference the AP1000 DC, resulting in a new expiration date of February 27, 2026. The requested exemptions also sought to defer by 5 years the time period during which Westinghouse could submit, and the NRC staff could accept, Westinghouse's AP1000 DC renewal application. Under the requested exemption, Westinghouse could submit the AP1000 DC renewal application between February 27, 2023, and February 27, 2025.

In a letter dated February 14, 2018 (ADAMS Accession No. ML17265A099), the NRC responded to Westinghouse by granting the request in part and denying it in part. The NRC stated that the agency would defer by 5 years the time period during which Westinghouse could timely submit, and the staff could accept Westinghouse's renewal application for the AP1000 DC. The NRC denied the requests for exemption from 10 CFR 52.55(a) and Section VII in the AP1000 DC rule that would have extended the period during which future COL applicants could reference the current AP1000 DC. The regulation at 10 CFR 52.55(a) generically establishes the 15-year duration of a DC, and 10 CFR Part 52, Appendix D, Section VII, establishes the specific validity period for the AP1000 DC. These regulations pertain to the ability of a COL applicant to reference the AP1000 DC. Exemptions from these requirements require consideration of the particular and special circumstances of the "interested person" (i.e., the prospective COL applicant), pursuant to the exemption criteria of 10 CFR 50.12(a). Special circumstances related to the ability to reference the DC do not pertain to Westinghouse because it is not a COL applicant. Therefore, the staff granted the exemption request to 10 CFR 52.57(a) that deferred the timely renewal period for the AP1000 DC until February 27, 2023, to February 26, 2025, but noted that the AP1000 DC would still expire on February 27, 2021, and could not be referenced after its expiration.

By letter dated June 26, 2020 (ADAMS Accession No. ML20178A640), Westinghouse requested that the NRC extend the duration of the AP1000 DC by 5 years. This extension

¹ The term "valid" means that the design certification is not expired, thus a combined license (COL) applicant that references the AP1000 DC rule would be afforded the licensing benefits of issue finality that attach to a valid design certification. Future applicants may continue to use the AP1000 design after the rule expires, but they would not have the benefit of the issue finality granted to certified designs unless and until the rule is extended.

² While construction permit applicants can also reference a design certification, the discussion in this paper will refer only to COL applicants.

³ The NRC is considering changes to the duration and renewal requirements for DCs in the rulemaking activity, "Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing" (Docket ID NRC-2009-0196; RIN 3150-AI66).

would allow the AP1000 DC to remain valid for reference while the NRC considers potential changes to the duration and renewal of future and currently valid DCs in a separate, ongoing rulemaking. Specifically, as described in SECY-19-0084, "Status of Rulemaking to Align Licensing Processes and Lessons Learned from New Reactor Licensing," (ADAMS Accession No. ML19161A194), the NRC staff is considering whether the requirements to renew a certified design should be modified or eliminated. The timeline for that rulemaking presents a unique challenge for AP1000 DC renewal because the NRC will not complete the rulemaking before the AP1000 DC is scheduled to expire on February 27, 2021. The staff reviewed the duration of all other certified designs and concluded that only the AP1000 DC would expire during the time that the staff plans to complete the evaluation of DC durations and renewals. Thus, extending the duration of the AP1000 DC for 5 years would allow the DC to remain valid, along with other active DCs, while the agency completes that rulemaking.

DISCUSSION:

Title

Extension of the Duration of the AP1000 Design Certification.

Regulations

- Section VII in Appendix D to 10 CFR Part 52 (the AP1000 DC rule): This regulation specifies that the AP1000 DC may be referenced for a period of 15 years from February 27, 2006 (i.e., until February 27, 2021), with certain exceptions. Section VII also specifies that the AP1000 DC remains valid for an applicant or licensee that references this appendix until the application is withdrawn or the license expires, including for any period of extended operation under a renewed license.
- 10 CFR 52.55(a): This regulation specifies that a standard DC is valid for a period of 15 years from the date of issuance (i.e., 15 years after the effective date of the DC final rule).
- 10 CFR 52.57(a): This regulation specifies that any person may apply for renewal of a certified design between 12 and 36 months before the date of expiration.

Regulatory Issue

The AP1000 DC is scheduled to expire on February 27, 2021. Upon expiration, the AP1000 DC will no longer be valid for reference by a COL applicant. In accordance with an exemption to the timely renewal requirement under 10 CFR 52.57(a) granted in February 2018 (ADAMS Accession No. ML17265A099), the NRC staff deferred by 5 years the period during which Westinghouse may submit a timely application to renew the AP1000 DC. The period now begins on February 27, 2023, and ends on February 27, 2025. A rule change to extend the valid reference period of the AP1000 DC by 5 years would align with the time period during which Westinghouse may submit a timely renewal application. The extension also would allow the AP1000 DC to remain valid for reference while the NRC considers other potential changes to the duration and renewal of future and currently valid DCs in a separate, ongoing rulemaking.

Existing Regulatory Framework

In the final rule that established 10 CFR Part 52 (Volume 54 of the *Federal Register* (FR), page 15372 (54 FR 15372); April 18, 1989), the NRC set the DC duration at 15 years, 5 years more than the 10 years in NRC's proposed rule. NRC selected this timeframe to permit more operating experience with a given design to accrue before the DC came up for renewal. In 10 CFR 52.55, "Duration of certification," the NRC establishes the duration of a DC at 15 years from the date of issuance (the effective date of the final rule). Under the staff's decision to grant an exemption to the timely renewal filing requirement in 10 CFR 52.57(a), the current AP1000 DC would still expire on February 27, 2021, and future applicants that use the design would not get the benefit of design issue finality. Once the NRC accepted a timely renewal application consistent with 10 CFR 52.57, "Application for renewal," the design proposed in the renewal application could be referenced at the COL applicant's risk, consistent with 10 CFR 52.55(c).

Explanation of Why Rulemaking is the Preferred Solution

The staff has determined that rulemaking is the preferred solution. Extending the duration of the AP1000 DC so that it remains valid for reference will allow the NRC to consider potential changes regarding the duration and renewal of future and currently valid DCs. For this limited scope rulemaking, the staff evaluated the following two alternatives:

- (1) Status quo: The AP1000 DC rule was published on January 27, 2006, and made effective on February 27, 2006 (71 FR 4478). Without action to extend the duration of the AP1000 DC, the DC will expire on February 27, 2021. The advantage of this alternative is that the NRC would not expend resources to conduct a rulemaking to extend the duration of the DC. The disadvantages are that, upon expiration, the DC becomes invalid for reference by a future COL applicant. Therefore, an applicant seeking to use the AP1000 DC after its expiration would not have the benefit of design issue finality provided by the current AP1000 DC rule.
- (2) Extend the duration: Under this alternative, the staff would conduct a rulemaking to extend the duration of the AP1000 DC by 5 years. The advantage of this alternative is that the DC would remain valid for reference by a future COL applicant until February 27, 2026. The validity of the DC would align with the period between February 27, 2023, and February 27, 2025, during which the DC applicant may submit a timely renewal application. Also, if this rule is issued, a COL applicant seeking to reference the AP1000 DC after the rule's current expiration date of February 27, 2021, would get the benefit of design issue finality prior to the submittal of a timely renewal application and without incurring the risk described in 10 CFR 52.55(c). The disadvantage is that this option would require NRC resources to conduct the rulemaking.

The staff considered this alternative within the context of the existing regulatory framework and determined that extending the DC duration by 5 years would be consistent with the objectives of 10 CFR Part 52 and would maintain protection of public health and safety. Specifically, the staff considered the following factors:

- Westinghouse continues to actively support the AP1000 design and is expected to do so during the extended duration period. Therefore, Westinghouse remains available to supply design information to a potential COL applicant consistent with 10 CFR 52.73(a).

- The staff is not aware of any technical or regulatory issue that would preclude an extension of the AP1000 DC duration by 5 years. Additionally, the staff will reaffirm the safety and environmental conclusions supporting the initial issuance of the AP1000 DC based on current knowledge of the design.
- Although the staff is aware of certain design issues that have been addressed during the review of recent COL applications that reference the AP1000 DC, the staff has demonstrated that these issues can be adequately addressed within the existing 10 CFR Part 52 framework.
- The staff will assess all these technical issues with the design to determine their impact on the necessary safety and environmental findings, and, if necessary, carve-out issues in the design certification, provided the design remains “essentially complete.”

The staff recommends Alternative 2. This alternative would reduce unnecessary regulatory burden and uncertainty for a potential COL applicant by extending the valid reference period of the AP1000 DC for an additional 5 years, and it would maintain protection of public health and safety. It would also allow the AP1000 DC to remain valid for reference as the NRC considers potential changes to the duration and renewal of future and currently valid DCs in a separate, ongoing rulemaking.

The staff has sufficient technical, legal, and policy support, and has conducted sufficient analysis to complete the recommended rulemaking. Accordingly, the staff recommends omitting preparation of a regulatory basis for this action and using the direct final rule process with delegated signature authority to the Executive Director for Operations (EDO).

Because this rule will make only a simple revision to the rule text to facilitate a short-term extension, the staff anticipates the action will be noncontroversial. Staff does not expect to receive significant and adverse public comment. A comment is significant and adverse 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.⁴ As a certified design approved by the Commission that is now under construction, the AP1000 has been the subject of significant public scrutiny such that issues with the design are well understood. Therefore, the staff believes it can reasonably anticipate and address these issues in the *Federal Register* notice for the direct final rule. The direct final rule process is appropriate for these reasons and minimizes the use of agency resources.

Description of Rulemaking: Scope

The scope of the rulemaking is limited to amending Section VII in Appendix D to 10 CFR Part 52 to extend the duration of the AP1000 DC for an additional 5 years beyond the current expiration date of February 27, 2021. This extension will allow a potential COL applicant to reference the AP1000 DC while the Commission more broadly considers potential changes to the duration and renewal of future and currently valid DCs in a separate, ongoing rulemaking.

⁴ *Direct Final Rule*, NRC (Dec. 29, 2017), <https://www.nrc.gov/about-nrc/regulatory/rulemaking/rulemaking-process/direct-final-rule.html>.

Description of Rulemaking: Preliminary Backfitting and Issue Finality Analysis

The staff expects that this rulemaking would not constitute a backfit as defined in the backfit rule (10 CFR 50.109, "Backfitting") and would not be inconsistent with any applicable issue finality provision in 10 CFR Part 52. Extending the duration of the AP1000 DC would not constitute backfitting because it would not restrict any prospective COL applicant's ability to reference the AP1000 DC, nor would it place any additional requirements on the AP1000 DC. This rulemaking would not affect currently licensed plants that reference the AP1000 DC.

Description of Rulemaking: Estimated Schedule

The schedule milestones shown below reflect a highly expedited schedule to complete the rule and make it effective before the expiration date of the AP1000:

- Initiate direct final rule—upon receipt of the Commission's staff requirements memorandum—September 2020.
- Deliver for signature the rulemaking package, including the direct final rule and companion proposed rule, to the EDO—2.5 months after the Commission's staff requirements memorandum—December 2020.
- Anticipated effective date—2.5 months after the EDO signs the FR notices for the direct final rule and companion proposed rule—February 2021.

Description of Rulemaking: Preliminary Recommendation on Priority

Based on the Common Prioritization of Rulemaking methodology (ADAMS Accession No. ML18263A070), the preliminary priority for this rulemaking activity is medium. Specifically, the staff determined that this rulemaking would: (1) be a moderate contributor toward the NRC's safety and security goals by further risk-informing the regulatory framework and ensuring the effectiveness and efficiency of licensing activities, (2) be a moderate contributor to the NRC's Principles of Good Regulation by enhancing efficiency and reliability, (3) provide a regulatory benefit by extending the validity of the AP1000 DC so that it is available for reference by a future COL applicant, and (4) attract minimal public interest.

Description of Rulemaking: Estimate of Resources

The proposed action is estimated to involve a minimal cost through fiscal year (FY) 2021, assuming the staff pursues a direct final rule without preparing a regulatory basis. While this rulemaking is not explicitly budgeted in FY 2021, the staff can use its planning, budgeting, and performance management process to reapportion resources within the rulemaking product line under the new reactor business line for this rulemaking.

Alternative 1 would result in the expiration of the AP1000 DC on February 27, 2021, after which time the DC would not be valid for reference by future COL applicants. Thus, a COL applicant seeking to use the AP1000 DC after expiration could request an exemption from the current regulation to reference the DC or to pursue other regulatory solutions. Under Alternative 2, the staff would conduct a rulemaking to extend the duration of the AP1000 DC by 5 years. This extension aligns with the timely renewal period granted by exemption to the DC applicant. The DC would also remain valid for reference by a COL applicant seeking to use the AP1000

design. Lastly, it would allow the AP1000 DC to remain valid for reference while the NRC considers potential changes to DC durations and renewals in a separate, ongoing rulemaking. Alternative 2 would impose no additional regulatory burden on any licensees or applicants and would demonstrate the staff's ability to think transformationally in a manner that is both low risk and low cost to the agency. For these reasons, the staff recommends Alternative 2.

Cumulative Effects of Regulation

The proposed regulatory action would involve no cumulative effects of regulation because it only affects the original DC applicant and does not affect any existing applicants or licensees that reference the AP1000 DC. Further, the extension of the AP1000 DC duration would not affect the design or any related documents (e.g., the design control document).

Agreement State Considerations

There are no Agreement State considerations for this rulemaking because DCs are not subject to regulation by Agreement States.

Guidance

No guidance documents describe the duration of a specific DC; therefore, the staff would not need to update any guidance documents in parallel with this rulemaking.

Advisory Committee on Reactor Safeguards Review

The staff has consulted with the Advisory Committee on Reactor Safeguards (ACRS) staff on this regulatory issue, and the ACRS has requested to be only kept informed as the rulemaking progresses.

Committee to Review Generic Requirements Review

The staff recommends that review by the Committee to Review Generic Requirements (CRGR) is not necessary because the staff expects that no backfitting would be associated with this rulemaking action, as described in the "Description of Rulemaking: Preliminary Backfitting and Issue Finality Analysis" section of this rulemaking plan.

Advisory Committee on the Medical Use of Isotopes Review

The staff recommends that review by the Advisory Committee on the Medical Use of Isotopes (ACMUI) is not necessary because the proposed rulemaking would not affect NRC regulation or licensing of medical uses of byproduct material.

Analysis of Legal Matters

The Office of the General Counsel has reviewed this rulemaking plan and evaluated the legal issues associated with proceeding with the staff's preferred option, and its analysis is provided in Enclosure 1.

COMMITMENT:

If the Commission approves initiation of the rulemaking, in accordance with SECY-16-0042, "Recommended Improvements for Rulemaking Tracking and Reporting," dated April 4, 2016 (ADAMS Accession No. ML16075A070), the NRC staff will add the rulemaking activity to the agency's rulemaking tracking tool.

RECOMMENDATION:

The staff recommends that the Commission approve the following:

- Alternative 2, initiation of rulemaking to amend Section VII in Appendix D to 10 CFR Part 52 to extend the duration of the AP1000 DC for an additional 5 years beyond the current expiration date of February 27, 2021.
- Use of the direct final rule process for this limited-scope rulemaking.
- To not develop a regulatory basis.
- The staff's recommendation on ACRS, CRGR, and ACMUI review.
- Delegation of the signature authority for this action to the EDO.

RESOURCES:

Enclosure 2 includes an estimate of the NRC resources needed to complete this rulemaking. Resource estimates in Enclosure 2 are not publicly available.

COORDINATION:

The Office of the General Counsel has no legal objection to this action. The Office of the Chief Financial Officer has reviewed this package and has no concerns with the resource estimates in Enclosure 2.

Margaret M. Doane

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Margaret M. Doane
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Enclosures:

1. Legal Analysis of the Office of the General Counsel (non-public)
2. Resources (non-public)

SUBJECT: RULEMAKING PLAN TO EXTEND THE DURATION OF THE AP1000 DESIGN
 CERTIFICATION: DATED: September 8, 2020

ADAMS Accession Numbers: PKG: ML20196L652; SECY: ML20252A153; Legal Analysis
 ML20226A015; Resources: ML20196L655

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