### **Enclosure 2**

Transmittal of Public Session Presentation Slides to Support the Westinghouse-NRC Pre-Submittal Meeting on the Westinghouse AP300 SMR Governing Design Codes & Standards White Paper

(Non-Proprietary)

September 2024

Westinghouse Electric Company 1000 Westinghouse Drive Cranberry Township, PA 16066

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# **AP300™ SMR Governing Design Codes and Standards White Paper Pre-Submittal Meeting**

September 20, 2024 – PUBLIC Session





 Purpose of this pre-submittal meeting is to describe the AP300 SMR governing design codes and standards strategy. The strategy will be documented in a white paper for NRC review and feedback as part of the pre-application licensing activities for AP300 SMR.

Updated Pre-Application Regulatory Engagement Plan submitted to NRC via ML24060A243



- AP300 SMR Strategy for Codes and Standards
- Compliance with 10 CFR 50.55a



# AP300 SMR STRATEGY FOR CODES AND STANDARDS

AP300 SMR adopts a significant portion of the design codes and standards used in the AP1000<sup>®</sup> plant as a basis for its development. The following outlines the rationale behind the selection of the applicable AP300 SMR's governing design codes, standards, and their editions:

- Use of AP1000 codes and standards as a foundation: AP300 SMR leverages the proven technology and experience gained from the AP1000 plant, which supports the adoptions of its design codes and standards as a starting point.
- Consideration of technological differences between AP300 SMR and AP1000: To account for any technological differences between the two designs, the list of governing design codes and standards has been revised and updated accordingly.
- Incorporation of the most recent industry codes and standards: The latest editions of the relevant industry codes and standards have been considered to ensure that AP300 SMR remains up to date with current best practices.
- **Regulatory guidance alignment:** The selection of the applicable code and standard editions for AP300 SMR is in line with the most recent regulatory guidance, ensuring compliance with relevant regulation.



# AP300 SMR STRATEGY FOR CODES AND STANDARDS

Selection of the applicable editions for AP300 SMR governing design codes and standards

## 1. Regulatory Endorsement Check

- Is the code or standard endorsed by Regulatory Guide or 10 CFR 50.55a?
  - > Use the endorsed edition.

### 2. Sub-Tier Codes

- Is it a sub-tier code referenced by an endorsed top-tier code?
  - > Follow the edition referenced by the endorsed top-tier code.

### 3. No Endorsement

- If no endorsement is available:
  - > Use the most recent edition of the applicable code or standard.



# **CONFORMANCE WITH 10 CFR 50.55a**

- Construction Code: ASME Boiler and Pressure Vessel Code (BPVC) Section III 2021 Edition
  - Per September 2024 Amendment to 10 CFR 50.55a
  - Section III Code Cases selected per Regulatory Guide 1.84 Revision 40
- Supporting ASME BPVC Sections 2021 Edition except as noted below
  - Section II Use of later editions is allowed but requires reconciliation with the construction code edition.
  - Section V For use in the design. Later editions may be used for examination activities.
  - Section IX For use in the design. Later editions may be used for fabrication activities.
  - Section XI
  - Section XIII
- ASME NQA-1 2015 Edition
  - Aligns with 10 CFR 50.55a and ASME BPVC Section III
- ASME OM Code 2022 Edition
  - Per September 2024 amendment to 10 CFR 50.55a
- IEEE standard 603 1991 Edition
  - Aligns with the guidance provided in 10 CFR 50.55a

The AP300 SMR design currently has no expected exceptions to 10 CFR 50.55a

