

Enclosure 2

**Transmittal of Public Session Presentation Slides to Support the
Westinghouse-NRC Pre-Submittal Meeting on the Westinghouse
AP300 SMR Probabilistic Risk Assessment White Paper**

(Non-Proprietary)

October 2024

**Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066**

**© 2024 Westinghouse Electric Company LLC
All Rights Reserved**



SMR_LTR_240073
Enclosure 2

AP300™ Small Modular Reactor (SMR) Probabilistic Risk Assessment (PRA) White Paper Pre-Submittal Meeting

October 31, 2024 – PUBLIC Session



Westinghouse Non-Proprietary Class 3 | © 2024 Westinghouse Electric Company LLC. All Rights Reserved.



Meeting Objective

SMR_LTR_240073
Enclosure 2

- ▶ Purpose of this pre-submittal meeting is to describe the planned Probabilistic Risk Assessment (PRA) strategy for the AP300™ Small Modular Reactor (SMR), which will be documented in a white paper to be submitted for NRC feedback as part of the pre-application licensing activities for AP300™.



AP300™ SMR PRA Approach

SMR_LTR_240073
Enclosure 2

- ▶ Westinghouse is developing a PRA for Design Certification Application (DCA) as required by 10 CFR 52.47(a)(27), which provides a description of the design-specific PRA and its results.
- ▶ The AP300 PRA will assess the risk for both Level 1 and Large Early Release Frequency/Large Release Frequency (LERF/LRF) models
- ▶ The AP300 PRA is being developed based on Interim Staff Guidance (ISG) DC/COL-ISG-028 and Standard Review Plan Section 19.0.
- ▶ The initial PRA for DCA can be used to judge impact of design changes and differences but will be substantially more conservative than the site-specific PRA.



AP300™ SMR PRA Approach

SMR_LTR_240073
Enclosure 2

- ▶ Utilize experience gained from AP1000 and the peer reviewed Vogtle 3 and 4 at-power PRA models.
- ▶ Leverage the AP1000 PRA design to streamline development.
- ▶ Incorporate AP300-specific design differences.
- ▶ Assumptions will be clearly documented.



Desired Outcomes

SMR_LTR_240073
Enclosure 2

- ▶ Improved understanding of planned approach for AP300 safety analyses.
- ▶ Obtain feedback relative to the Westinghouse planned approach.
- ▶ Submission of the white paper expected in November.



THANK YOU

SMR_LTR_240073
Enclosure 2

AP300 SMR

The **ONLY** SMR based on Nth of a Kind Operating Plants



Proven Technology



Advanced Safety



Readily Deployable



Westinghouse Non-Proprietary Class 3 | © 2024 Westinghouse Electric Company LLC. All Rights Reserved.