

**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**

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SMR\_LTR\_240073  
Enclosure 2

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

October 31, 2024 – PUBLIC Session



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## Meeting Objective

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- ▶ 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

- ▶ 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

- ▶ 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

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- ▶ 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

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# AP300 SMR

The ONLY SMR based on N<sup>th</sup> of a Kind Operating Plants



Proven Technology



Advanced Safety



Readily Deployable

