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## SMR-160 V&V Discussion



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# Agenda



- Introductions
- Purpose & Outcome
- List of V&V items and timeline of activities
- Questions
- Open Forum

## Purpose & Outcome

- To provide SMR's anticipated plans to complete and document all V&V.
- To gain alignment with the NRC staff on sufficient V&V information for a CPA acceptance and CPA approval.

# NRC Guidance for CPA Content



## ■ DNRL-ISG-2022-01, Transient and Accident Analysis

- ✓ These analyses are a focal point of the Commission's CP reviews of facilities to support a finding that the proposed facility can be constructed and operated without undue risk to public health and safety (50.34 and 50.35)
- ✓ At a minimum, the NRC staff should ensure the PSAR includes, in part:
  - Verification that the LOCA evaluation methods used are approved and applicable to the design.
  - Verification that non-LOCA evaluation methods are at a minimum under active NRC staff review and any open items can reasonably be left for later consideration in the final safety analysis report, and that there is reasonable assurance that the proposed facility can be constructed and operated without undue risk to public health and safety.

## NRC Guidance for CPA Content



### ■ ISG also states, in part:

- ✓ The NRC recognizes that the facility's design at the CP stage is not complete, and the values of system parameters and setpoints used in the analysis will be preliminary in nature and subject to change in the future. Consistent with 10 CFR 50.35, some technical and design information may reasonably be left for a later stage of licensing. However, the NRC staff must be confident that any missing information and open safety questions can be resolved satisfactorily before the completion of facility construction. Examples of items that could reasonably be left for later include the following:
  - Finalization of evaluation methods under active NRC staff review at the time of CP issuance.

## Best Estimate Schedule



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# List of Anticipated LTRs



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# Timeline (Based on Best Estimate Schedule)



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## Questions on LOCA and non-LOCA EM



- For the verification and validation (V&V) of the LOCA and non-LOCA evaluation methods:
  - ✓ What documentation is required at CPA submittal for NRC acceptance?
  - ✓ What NRC review is required for NRC issuance of the CP?
  
- Are the same requirements applicable to other codes and methodologies noted in the presentation today?

# Open Forum

