

NuScale Pre-application Program Overview



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Meeting Outcomes

- Present topics for pre-application engagement
- Describe pre-application outcomes for each topic
- NRC feedback on proposed pre-application outcomes
- Describe proposed level of engagement
 - Meetings (presentations), workshops, white papers, and pre-application submittals
 - Forms of feedback
- NRC suggestions for additional topics for pre-application engagement

Pre-Application Program Overview

General

- **Gap analysis and DCA content outline*
- Quality assurance program description (submitted)
- NRC design familiarization

Control room and operations

- **Concept of operations and control room operator staffing*
 - HFE Program Implementation Plan (submitted)
 - Analysis Phase Implementation Plan (submitted)
- **Security by design*
- Technical specifications

Note: ** Topics presented today*

Pre-Application Program Overview

Reactor building and reactor module

- **Seismic design analysis approach*
- **Module assembly and equipment handling*
- **Containment functions, requirements and capabilities*
- Steam generator qualification
- Digital I&C diversity and DID
 - Cyber security plan (submitted)
- Fuel design evaluation

Analysis codes and methods, and testing

- **Safety analysis codes and methods*
- **BDBA and multi-module risk*
- **Mechanistic source term development*
- **Test program*
- LOCA PIRT (submitted)
- Dynamical System Scaling (DSS) methodology (submitted)

Note: ** Topics presented today*

Agenda

Time	Topic	Lead
8:30 – 8:50am	Introductions and pre-application program overview	NRC / Ed Wallace (NuScale)
8:50 – 9:45am	Design overview	Dr. Jose Reyes (NuScale)
9:45 – 10:30am	Gap analysis and DCA content outline Concept of operations and control room operator staffing Security by design	Derick Botha Charles Weaver Michael Miller (NuScale)
10:30 – 10:45am	Break	
10:45 – 12:00pm	Seismic design analysis approach Module assembly and equipment handling Containment functions, requirements and capabilities	Michael Miller Maurice LaFountain Maurice LaFountain (NuScale)
12:00 – 1:00pm	Break	
1:00 – 2:30pm	Safety analysis codes and methods Test program overview BDBA and multi-module risk Mechanistic source term development	Dr. Kent Welter Dr. Jose Reyes Dr. Kent Welter Dr. Kent Welter (NuScale)
2:30 – 3:00pm	NRC additional topics of interest during pre-application reviews	NRC
3:00 – 3:15pm	Summary and closing remarks	Ed Wallace (NuScale) / NRC