

**Industry Lessons Learned for New Plant Siting Safety Reviews**

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**Gaining Experience**

- Three Early Site Permits (ESP) approved
- One ESP in process
- Four COLAs accepted for NRC review
- One partial-COLA accepted for NRC review
- Two additional COLAs in acceptance review



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**Challenges with Site Safety Reviews**

- Unsettled rules and significant new guidance
- Coordination
- Plant Parameter Envelope approach for ESPs



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**Technical Issues with Early Siting Safety Reviews**

- **Climate Change**
- **Hydrology**
- **Emergency Planning**
- **Seismic**

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**Progress on Safety Reviews  
Example - Seismic Issues**

- **New Methodologies and Tools Approved**
  - Incoherency methods for high frequency
  - Use of Cumulative Absolute Velocity (CAV)
  - Validation of software packages for soil structure interaction analysis
  - Schedules for RC/TS information accepted
- **Recent Interactions**
  - Interim Staff Guidance to resolve last high frequency issues
  - Methodology in development to bound and disposition new analysis for PSHA
  - Discussions ongoing to determine requirements for deep soil sites

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**The Next Wave**

- **Time to market will impact success of nuclear power**
  - Ability to meet consumer demand is essential
  - Site safety and environmental reviews will become critical path in COL approval
  - Regulatory stability is required for investments in new plants
- **Industry must apply lessons learned**
  - Sites can be grouped by technology, geology, and hydrology to provide a common framework
  - Design considerations should be covered in the design certification to improve efficiency and promote standardization

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