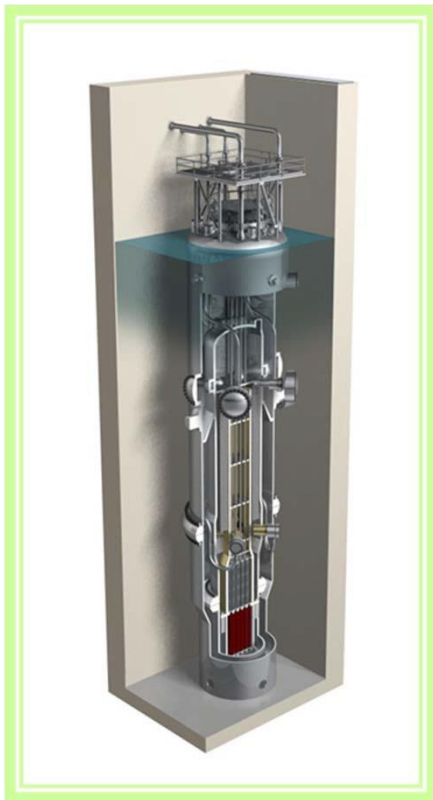


# NRC Stakeholder Meeting

## Topic #10: Effectiveness of Current Regulatory Framework



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# Acknowledgement and Disclaimer

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# Level of Detail in Applications and Review Efficiency

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- Incorporate recent plant licensing lessons learned
- Risk-inform DCA review for graded level of detail
  - NRO-trained technical branch staff to risk-inform NuScale DCA review (more detail for safety and risk significant SSCs—less detail for nonsafety or non risk-significant SSCs)
  - expected positive outcome for a focused and efficient review
- Level of detail in applications
  - size of DCA grows AP1000 (6,900 pages) to KHNP (11,000 pages) to NuScale (estimated 12,000 pages)
  - KHNP APR-1400 is **not** the example for appropriate level of design completeness (already constructed design)
  - not limited to DCAs
    - TVA ESP 8,800 pages following in-depth readiness assessment, and acceptance review not completed in 60 days

# Small Modular Reactor/Advanced Reactor Security

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- Use of security by design
- Physical security framework suitable and predictable for SMR/AR designs
- NEI white paper, consequence-based approach, encourages security by design
  - consistent with the concepts that form the basis for the consequence-based EP rulemaking currently underway
  - efficiencies will be realized by clarifying the regulatory basis upfront in order to support a rulemaking and near-term exemptions

# Off-Site Power

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- Public health and safety are protected by some SMR/AR designs without reliance on off-site power (GDC 17)
- Basis of GDC 17 is large LWR operating fleet which requires electric power for safety functions—not the case of SMR/AR designs
- DOE and DOD national security power require, for mission critical activities, no reliance on off-site power
- Regulatory guidance and acceptance criteria needed for these designs

# Tier 2\*

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- Original intention for Tier 2\* has not been realized in its application
- Tier 2\* implementation has caused excessive regulatory burdens and LARs with no safety benefit
- Tier 2\* should be eliminated
- Elimination of Tier 2\* should not result in expansion of Tier 1
- NRC should adhere to Tier 1 first principles



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