Industry Organization Participation

Steven Mirsky, P.E., Licensing Representative

June 2, 2010

U.S. Nuclear Regulatory Commission
Pre-Application Meeting
Rockville, MD

NuScale Power

Industry SMR Activity Goals

- Identify, prioritize, and evaluate generic SMR technical, regulatory, and policy issues
- Develop SMR industry and end-user consensus on regulatory and policy generic guidelines and prepare position papers for these issues
- Provide these guidelines and position papers to the NRC as a resource for the SMR license application reviews

Industry Organizations Involved in Small Modular Reactor (SMR) Activities

- American Nuclear Society (ANS)
- Electric Power Research Institute (EPRI)
- Nuclear Energy Institute (NEI)

ANS Activities

- NuScale is member of ANS SMR Committee
- Three ANS SMR Subcommittees (A, B, and C)
- Draft subject papers developed
  - License fees
  - License requirements
  - Price-Anderson act
  - Staffing
  - Security
  - Seismic isolation
  - Risk-informed and performance-based licensing
  - Manufacturing license
  - Multi-module issues
  - Inspections, tests, analyses, and acceptance criteria (ITAAC)

ANS Activities (continued)

- NuScale authored license fees
- NuScale has reviewed all papers
- SMR Committee reports to be presented at June 2010 ANS Conference in San Diego

EPRI Activities

- NuScale is member of EPRI Nuclear Power Council
  - Review ongoing R&D activities and future R&D plans
  - Evaluate emerging issues and industry events
- NuScale is member of EPRI SMR Technical Advisory Group (TAG) project to update the ALWR Utility Requirements Document (URD) Volume 1 to include SMRs
- SMR URD Volume 1 scheduled for publication submission August 2010

EPRI URD Volume 1 NuScale Assignments

- Simplification, design margin, human factors, safety, design basis, proven technology, constructability, and QA policy
- Accident resistance, core damage prevention, mitigation, passive plants requirements, and plant characteristics
- Maneuvering, transients, reliability, availability, man-machine interface system, and top-level constructability requirements

EPRI URD Volume 1 NuScale Assignments (cont.)

- Construction and design coordination, advanced construction technology, and integrated construction planning and scheduling
- Design integration, configuration management, information management system, engineering verification of as-built condition, certification design requirements, and passive ALWR scenario

NEI Activities

- Early Site Permit (ESP) Plant Performance Envelope (PPE) Guidelines Task Force Member
  - Draft Guideline (NEI 10-01) submitted to the NRC on March 26, 2010
  - SMR Subgroup formed to develop SMR-specific PPE
  - First SMR Subgroup meeting June 9, 2010
- SMR Licensing Task Force Member
  - First meeting held April 26, 2010
  - Members include SMR vendors, utility operators, and consultants
  - Task Force Charter finalized
  - Generic SMR issues identified and ranked
  - Coordination and integration with ANS activities
  - Next Task Force Meeting June 10, 2010

NEI SMR Licensing Task Force High Priority Issues

- Physical security and security force staffing
- Offsite emergency preparedness
- Control room staffing and layout [Nuscale co-authorship]
- Module installation next to operating module, single facility license, SMR definition
- Defense-in-depth
- Risk metrics
- NRC annual fees
- Price-Anderson (liability)
- Decommissioning funding [NuScale co-authorship]
- Application format, scope, and venue

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