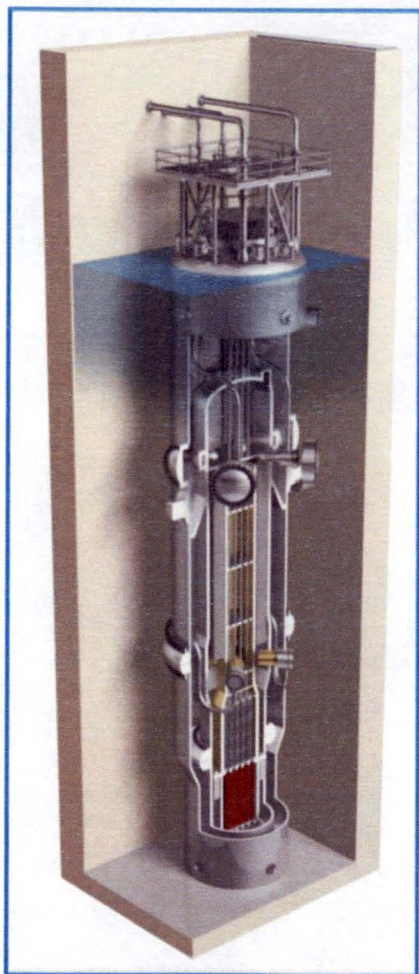


Enclosure 1:

"Risk-Informed Review of NuScale Initial Test Program," PM-0718-61123, Revision 0

NuScale Nonproprietary

Risk-Informed Review of NuScale Initial Test Program



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August 1, 2018

PM-0718-61123

Revision: 0

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Template #: 0000-21727-F01 R3

Introduction

- NuScale DCA, FSAR Section 14.2, provides Initial Test Program (ITP) test abstracts for preoperational and startup tests for structures, systems, and components (SSCs) per Regulatory Guide 1.68
 - Table 14.2-109 contains the list of NuScale ITP test abstracts
- NRC’s March 27, 2018 Staff Memo (ML18074A124)
 - Defines new approach for Staff review of NuScale ITP—limit review to safety-related and risk-significant SSCs
 - The revised approach “aligns with the methodology proposed in SECY-11-0024” for risk-informed licensing reviews
 - But “the review of [SSCs] that are not risk significant will be evaluated at the later combined operating license stage”

Summary

- NuScale agrees with risk-informing review of ITP test abstracts
- NuScale believes Staff's review should include tests related to ITAAC and first-of-a-kind (FOAK) design features
- NuScale believes risk-informed review is sufficient and appropriate for both DC and COL stages; review of remaining test abstracts at COL stage is inconsistent with intent of risk-informed review policy

Background

- COMGEA-10-0001/COMGBJ-10-0004, Use of Risk Insights to Enhance Safety Focus of Small Modular Reactor Reviews:
 - “The objectives of this initiative are: [to] accelerate the development of a licensing framework informed by risk insights ... in a manner that makes the reviews of SMR design certification and combined license (COL) applications more safety focused and more efficient.”
- SRM-COMGBJ-10-0004/COMGEA-10-0001:
 - Staff policy paper should address “Alignment of review focus and resources, consistent with regulatory requirements, to risk-significant SSCs and other aspects of the design that contribute most to safety to enhance the efficiency of the review process. The plan should address the use of risk insights in determining which portions of existing review guidance (e.g., standard review plans) should be applied to SMRs.”

Background

- Resulting policy paper, SECY-11-0024, is not limited to Design Certification applications:
 - The Staff’s risk-informed review framework “would provide guidance to the staff on the review of risk-significant SSCs and other aspects of the design that contribute most to safety in order to enhance the efficiency of the review process. This review framework builds on the current review process to result in a more risk-informed and integrated process for the review of iPWR designs. “
- Standard Review Plan, Introduction – Part 2: Light-Water Small Modular Reactor Edition, implements SECY-11-0024; NuScale DSRS applies to both the DC and COL stage of the application

NuScale Position

- NuScale agrees with focusing DCA review on ITP abstracts for safety-related and risk-significant SSCs
- Test abstracts pertaining to ITAAC and FOAK design features should be included in the scope of the DCA review
 - Some ITAAC require verification of design features of nonrisk-significant components via preoperational testing of the design feature
 - FOAK tests verify design features which are new and unique and have not been tested previously
 - Important to achieve finality of these test abstracts at the DCA stage

NuScale Position

- Review of test abstracts for non-risk-significant SSCs at the COL stage is not necessary to ensure safety
 - DCA review of test abstracts + DCA/COLA review of administrative requirements provide sufficient review of ITP
 - Review of programmatic aspects at COL stage is unaffected by risk-informing scope test abstracts
 - Programmatic requirements, including licensee's QA Program, ensure licensee develops and implements effective ITP
 - Licensee is required to develop the test procedures for full RG 1.68 scope, and provide for NRC inspectors

NuScale Position

- Review of test abstracts for non-risk-significant SSCs at the COL stage is not required by regulation
 - 10 CFR 52.79(a)(28) does not define required scope of ITP or application content
 - DSRS 14.2 and Regulatory Guide 1.68 provide guidance on scope and administration of ITP
 - NuScale views Staff Memo as a modification of the review procedure provided in DSRS section 14.2
 - DSRS is review procedure for both DC and COL stages
 - Directs staff to review a risk-informed scope of the test abstracts otherwise directed by DSRS 14.2 and Regulatory Guide 1.68

Conclusion

- NuScale requests NRC revise review approach:
 - Test abstracts pertaining to ITAAC and FOAK design features are included in the scope of the DCA review
 - Risk-informed review approach applies to COL stage
 - Unless COLA information adds site-specific risk-significant SSCs, DCA review resolves ITP abstracts
 - Staff can rely on FSAR commitment to RG 1.68 and programmatic requirements to reach safety finding on non-risk-significant tests
- NuScale proposes to remove out-of-scope test abstracts from DCA
 - The COLA would not be required to add non-risk-significant test abstracts in Section 14.2

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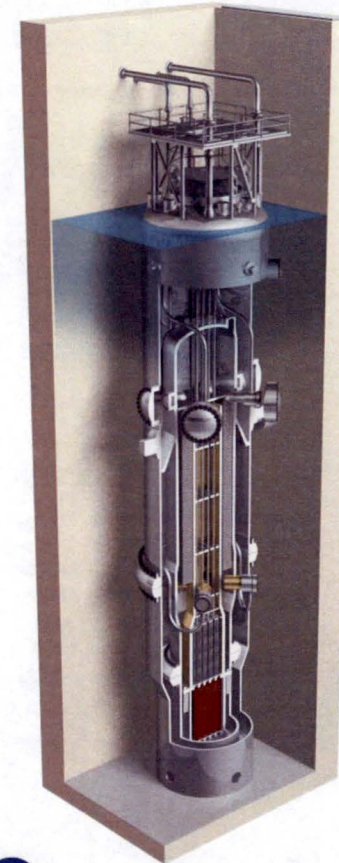
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