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# | NuScale Perspective

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**NuScale Nonproprietary**

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# Design Certification Review—Successes

- Overall, review has progressed very well
  - maintaining schedule for the bulk of the application
  - excellent communication at all levels
- Leadership of NRO executives appreciated
  - NRO August 29, 2018 memo (ML18240A410) clarifying review expectations
  - open dialog on issues
- Key successes
  - safety classification of electrical systems design
  - control room and licensed operator staffing
  - digital instrumentation and control platform

# | Design Certification Review—Challenges

- Not consistently realizing benefit of design safety
  - innovative design solutions to historic safety vulnerabilities seem to ‘raise the regulatory bar’ in some instances
  - unreasonable level of application detail and depth of staff review, especially in areas of low safety significance
  - review framework doesn’t evaluate safety holistically
  - inadequate/unclear consideration of risk in application and review processes
- Consequences
  - innovative safety enhancements harder to get approved than less-safe alternatives that better fit existing regulations and guidance
  - current review costs exceeding our estimate
  - level of detail creates lifetime significant regulatory burden to manage licensing basis



# Transformation Needs

- Risk-informed regulation
  - NuScale experience illustrates how difficult this transformation will be
  - existing framework, as currently implemented, is ill-suited for designs with significant departures from past safety concepts
  - urgent need to address for new applications
- Clarify scope and level of detail required in applications/review
  - both scope and content of application and review should be risk-informed
  - “essentially complete” should be limited to the information necessary for safety finding
  - limited review of operational programs at DCA stage
  - disciplined review that considers the full regulatory framework, including downstream regulatory processes.
- NuScale provides opportunity to pilot these concepts
  - some opportunities still exist in current review
  - future applications



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