

**RIC 2014**  
**Small Modular Reactor Licensing—  
Transition from Concept to  
Implementation**  
Stewart Magruder  
DARR/NRO  
March 13, 2014

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**NRC is ready to review SMR applications**

- Analyzed policies and guidance
- Identified overarching technical issues
- Conducted multiple Issue Identification and Ranking Programs
- Prepared Design-Specific Review Standard
- Developed training courses and review tools
- Conducted formal Lessons-Learned review of 10 CFR Part 52 licensing process

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**SMR review schedules**

- Design Certification reviews may be shorter for SMRs – potentially 39 months
- Requires discipline from applicant and staff
- Safety remains the top priority and will not be compromised to achieve review schedule

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**Policies and Guidance**

- Control Room Staffing
- Physical Security
- Emergency Planning
- Risk-Informed Reviews
- Financial considerations

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**Overarching Technical Issues**

- Deeply embedded structures
- Digital I&C
- ASME Code applicability
- Piping Design

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**Issue Identification and Ranking Programs (IIRPs)**

- Control Room Staffing
- Source Term
- Emergency Planning
- Environmental
- Security
- Cross-organizational

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**Design-Specific Review Standards**

- Allow for risk-informed and integrated review
- Engaged designers, potential licensees, and stakeholders in meaningful interactions
- Published draft for mPower in May 2013
- Draft for NuScale scheduled for June 2014

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**Training Courses and Review Tools**

- mPower course developed by NRC Technical Training Center
- Updating guidance for reviewing Construction Permit application
- Updating thermal-hydraulic and severe accident codes

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**10 CFR Part 52 Lessons Learned**

- Improved infrastructure
  - Electronic Requests for Additional Information
  - Enterprise Project Management
- New guidance on Acceptance Reviews

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**Conclusions**

- NRC is committed to ensuring that policies, requirements, and internal and external guidance are in place to support review of SMRs
- Engagement from potential applicants and stakeholders throughout the process is critical

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