



**ACRS Subcommittee Meeting:**

**Alignment of Licensing  
Processes and Lessons Learned  
from New Reactor Licensing  
Rulemaking**

September 20, 2019

# NRC Staff Presenters



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# Purpose

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- To receive the ACRS Subcommittee's perspectives from its review of ESP, DC and COL applications, and the implementation of the 10 CFR Part 52 process



# Purpose of the Rulemaking

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- Implement Commission direction in SRM-SECY-15-0002, “Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications” to:
  - Align the reactor licensing processes
  - Improve clarity
  - Reduce unnecessary burden on applicants and staff

# Background

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- Staff is engaging in rulemaking to:
  - Address recommendations on **alignment of 10 CFR Parts 50 and 52**; Enclosure 1 of the SECY
  - Address **Part 52 lessons learned** that have unnecessarily challenged staff, applicants, and licensees; Enclosure 2 of the SECY
  - Consider **transformational changes**

# Recent Activity

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October 1, 2018

- Started scoping and outreach

January 15, 2019

- Held public meeting

July 11, 2019

- Alignment on scope

August 27, 2019

- Issuance of Commission Information Paper SECY 19-0084

# Outreach

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- Staff requested input on the scope of the regulatory basis from:
  - The general public
  - Industry organizations
  - Nongovernmental organizations
  - NRC staff
- Staff collected approximately 250 items for consideration

# Screening Criteria

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- Items were first considered if they met at least one of the following criteria:
  - Addresses alignment of Parts 50 and 52
  - Addresses lessons learned from licensing activities
  - Is a potential transformational change
  - Reduces unnecessary burden and does not impact other requirements



## Screening Criteria (cont'd)

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- Items were screened out if they met at least one of the following criteria:
  - The item would provide neither a significant safety benefit nor burden reduction to staff or industry while maintaining the agency's safety mission
  - The item could be addressed by the administrative rulemaking for corrections
  - The item could be addressed through the development of guidance outside of rulemaking

# Scoping Results

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- Four alignment items
- 52 lessons learned items
  - Four of which are transformational
- 8 additional items are corrections, to be addressed in the semiannual administrative rulemaking for corrections to the CFR.

# Alignment Items

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- The staff is considering revising the regulations in 10 CFR Part 50 for new power reactor applications to more closely align with requirements in 10 CFR Part 52 in four areas:
  - a. Apply the Policy Statement on Severe Reactor Accidents to new 10 CFR Part 50 license applications
  - b. Develop, submit, maintain, and upgrade a plant-specific PRA, submit appropriate information describing that analysis as part of the CP and OL submittals, and maintain and upgrade the PRA throughout the duration of the operating license
  - c. Address the TMI requirements of 10 CFR 50.34(f) with the same exceptions given for 10 CFR Part 52 applications
  - d. Provide a description and analyses of fire protection design features and describe fire protection plans

# Lessons Learned Items

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- As described in Information SECY 19-0084, the staff is considering revising the regulations to address lessons learned from new reactor licensing in several topical areas:
  - PRA requirements
  - Operator licensing
  - Security
  - Emergency planning
  - 10 CFR Part 52 licensing process
  - Environmental review
  - Applicability of other processes to the Part 52 Process
  - Miscellaneous

# Transformational Items

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- As described in Information SECY 19-0084, some changes are considered transformational in nature:
  - Modify DC renewal requirements and expiration date
  - Align the change process for DCs with the 10 CFR 50.59 process
  - Add definitions of Tier 1, Tier 2 and Tier 2\* information to Part 52
  - Consider reducing requirements for standardization for certified designs

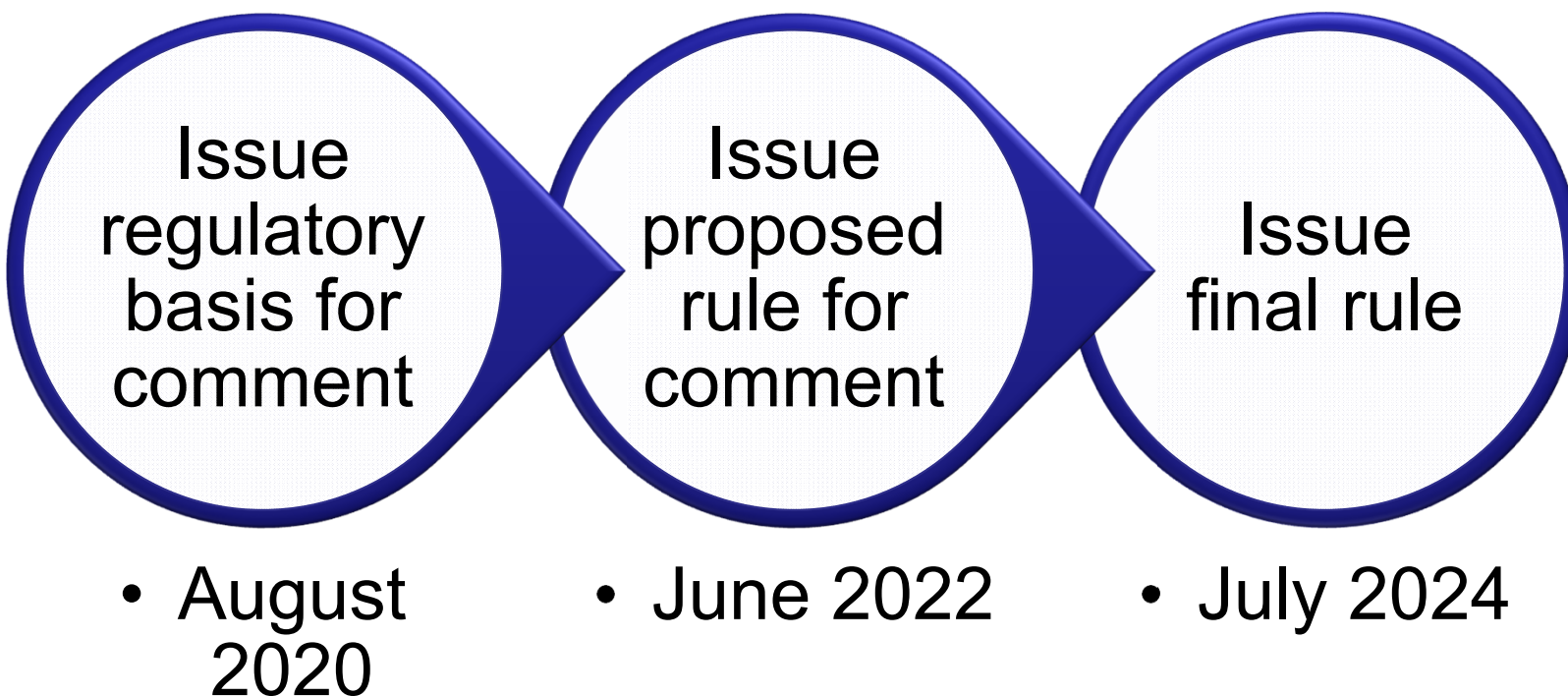
## Next Steps

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- Staff will consider your feedback from this meeting
- Develop and issue the regulatory basis for public comment
  - No draft and final regulatory basis will be issued
  - Comments received on the regulatory basis will be considered during the proposed rule stage
- Hold additional stakeholder meetings as needed

# Rulemaking Schedule

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# QUESTIONS?





# BACK UP SLIDES



# References

<u>Document Title</u>	<u>ADAMS Accession Number/ FR Citation</u>
SECY-19-0084, "Status of Rulemaking to Align Licensing Processes and Lessons Learned from New Reactor Licensing (RIN 3150-AI66)"	<a href="#">ML19161A169</a>
SECY-19-0034, "Improving Design Certification Content"	<a href="#">ML19080A034</a>
"Summary of January 15, 2019 Public Meeting to Discuss the Proposed Rulemaking to Align the Regulations in Parts 50 and 52 to Address Updates to the Licensing Processes and Lessons Learned for Future New Reactor Applications,"	<a href="#">ML19023A046</a>
SECY-15-0002, "Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications"	<a href="#">ML13277A420</a>
SRM-SECY-15-002, "Staff Requirements-SECY-15-002-Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications"	<a href="#">ML15266A023</a>
"Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants"	<a href="#">50 FR 32138</a>
SECY-89-013, "Design Requirements Related to the Evolutionary Advanced Light Water Reactors," dated January 19, 1989	<a href="#">ML003707947</a>
SECY-90-016, "Evolutionary Light Water Reactor (LWR) Certification Issues and Their Relationship to Current Regulatory Requirements," dated January 12, 1990	<a href="#">ML003707849</a>
SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor (ALWR) Designs," dated April 2, 1993	<a href="#">ML003708021</a>
Bipartisan Policy Center Report Recommendations on the New Reactor Licensing Process	<a href="#">ML13059A240</a>



# Administrative Corrections

10 CFR	Description
§ 2.627	The references to § 2.617 in § 2.629(b) and § 52.83(b) should be to § 2.627.
Part 52 Appendices	Both the ABWR and System 80+ design certification final rules (Part 52, Appendices A and B, respectively) initially correctly referred to "ANSI/AISC N-690." Both the AP600 and AP1000 design cert final rules (Appendices C and D, respectively) incorrectly stated ANSI/AISC-690 (omitting the "N"). 64 Fed. Reg. 72,002, 72,018; 71 Fed. Reg. 4,464, 4,481. Unfortunately, the NRC changed the ABWR and System 80+ references to match the AP600 and AP1000 references in the 2007 Part 52 rulemaking. Correct the reference in Appendices A-D by adding the "N" back into ANSI/AISC N-690
Part 52 Appendix D Section VI.B.6	Part 52, Appendix D, Section VI.B.6 reads "except as provided in paragraph VIII.B.5.f . . ." but the reference is incorrect. It should be "except as provided in paragraph VIII.B.5.g . . ." (rather than VIII.B.5.f).
Part 52 Appendix E Section VI.B.6	Part 52, Appendix E, Section VI.B.6 reads "except as provided in paragraph VIII.B.5.f . . ." but the reference is incorrect. It should be "except as provided in paragraph VIII.B.5.g . . ." (rather than VIII.B.5.f).
Part 50 Appendix J	Under Option B, Subsection IV. Recordkeeping, refers to § § 50.72 (b)(1)(ii) and § 50.72 (b)(2)(i). There is no § 50.72 (b)(1)(ii), only § 50.72 (b)(1). 10 CFR Part 50, Appendix J references 10 CFR Part 52 and 10 CFR 50.54(o) imposes Appendix J as a requirement.
§ 21.3, "Basic component"	Revise definition by deleting text in brackets as follows: "(2) When applied to standard design certifications [under subpart C of part 52 of this chapter] and standard design approvals under part 52 of this chapter,..."
§ 52.43(b)	Correct the following text in 10 CFR 52.43(b) which was not updated when SDAs were renamed to state: "Subpart E of this part governs the NRC staff review and approval of a <del>final</del> standard design."
§ 52.79(c)(2)	Correct as follows: "all terms and conditions that have been included in the <del>final</del> standard design approval will be satisfied...."

# Acronyms

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ABWR	Advanced Boiling Water Reactor
ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
COL	Combined License
CP	Construction Permit
DC	Design Certification
DCD	Design Certification Document
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OL	Operating License
PRA	Probabilistic Risk Assessment
RB	Regulatory Basis
SOC	Statement of Considerations
SRP	Standard Review Plan
SRM	Staff Requirements Memorandum
TMI	Three Mile Island