



10 CFR 50.46c ECCS Rulemaking

Public Meeting

March 17-18, 2015

NRC Opening Presentation



Meeting Purpose

- NRC seeks clarification regarding implementation and regulatory analysis comments received related to the 10 CFR 50.46c proposed rule
- Enhance NRC's understanding of the associated comments as the NRC continues to develop the draft final rule
 - Comment period ended on August 21, 2014



Meeting Purpose (cont'd)

- Staff will consider oral comments made in developing the final rule and guidance
 - NRC will not be providing, in the final rulemaking, written comment responses to any oral comments made at this meeting
- The NRC is not taking written public comments at this meeting



Rulemaking Purpose

- Revise emergency core cooling system (ECCS) acceptance criteria to reflect recent research findings
- Expand applicability to all fuel designs and cladding materials
- Replace prescriptive analytical requirements with performance-based requirements
- Address concerns raised in two petitions for rulemaking (PRMs): PRM-50-71 and PRM-50-84
- Allow an alternative risk-informed approach to evaluate the effects of debris on long-term cooling



Rulemaking Status Update

- Proposed rule issued for public comment on March 24, 2014
- Series of public meetings to facilitate public comments
- 150-day public comment period closed on August 21, 2014
- NRC received 31 comment submissions, totaling approximately 620 individual comments
- Staff is in the process of developing responses to all public comments and revising the proposed rule and regulatory guides as appropriate
- Staff has developed regulatory guide for risk-informed alternative in 10 CFR 50.46c



Update on Risk-Informed Regulatory Guide

- Draft guide is currently in internal NRC concurrence process
- Anticipate publication for public comment around the end of March
- Draft guidance incorporates lessons from South Texas Project (STP) pilot exemption request
 - Addresses detailed modeling as in the STP original approach
 - Supports use of simplified methodologies
- Focus is on Long Term Core Cooling for PWRs
 - May need revision in the future for other plant designs



Implementation

- Proposed rule included a 3-track implementation plan for the existing fleet
- Comments received from NEI and the industry identified an alternative plan which eliminated the track assignments from the rule
 - The industry's proposal would require each licensee to develop and submit a plan for implementation



Implementation (continued)

- Before considering removal of the regimented compliance schedule (*paragraph (o) and Table 1 of the proposed rule*) from the rule and establishing a single compliance date, the NRC is seeking a level of assurance that NRC's workload will be managed effectively and efficiently and on a defined schedule



Rule Changes Under Staff Consideration

- Long Term Cooling
 - Deletion of proposed LTC cladding ductility performance metric and LTC cladding temperature analytical limit
- Breakaway Oxidation
 - Deletion of annual testing and reporting requirement for breakaway oxidation (paragraph (m)(3))
 - Replaced by periodic confirmation test program approved by the NRC



Rule Changes Under Staff Consideration (continued)

- **Schedule for Implementation**
 - Resolution of debris related issues (e.g., GSI-191), whether by deterministic or risk-informed approach, not reflected in §50.46c implementation schedule
 - Single date for compliance (60 months) for operating fleet
 - COL holders must comply either before first fuel load or 60 months, whichever is later



Regulatory Analysis

- Draft regulatory analysis for proposed rule (ADAMS Accession No. ML12283A188)
- Comments: estimated industry implementation costs are significantly low
- Comments: NRC should work with industry and stakeholders to obtain more accurate cost estimates
- No comment provided information specific to this rulemaking
 - NRC cannot request information without obtaining OMB information collection and reporting approval



Next Steps

- Address public comments
- Potential additional public meetings as appropriate
 - Meeting in April at Oak Ridge National Lab on DG-1261, DG-1262, DG-1263
- ACRS subcommittee and full committee meetings likely at the end of 2015
- Develop final rule package
 - Due to the Commission in February 2016 (per SRM-COMSECY-13-0006)
- In parallel:
 - Develop implementation guidance for the risk-informed treatment of debris on long term core cooling



Questions?

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