

10CFR 50.46c Rulemaking BWROG

Roger Thomas (Duke Energy)

Reload Analysis and Core Management Committee
(RACMC) Chairman



BWR Expertise – Proven Solutions

Agenda



Background

The Present

Concerns

- 10CFR50.46c
- GSI-191
- Generic

Summary

Background



2011: 10CFR50.46c

- In a coordinated response, BWROG and PWROG respond to NRC request
 - Assess potential impact of new proposed rulemaking on the operating fleet
 - BWROG publishes BWROG-TP-11-010 (Rev. 1), *Evaluation of BWR LOCA Analyses Margins Against High Burnup Fuel Research Finding*
 - Conclusion: All U.S. BWRs indicate positive margin to proposed acceptance criteria with no adjustments or credits other than use of the Cathcart-Pawel (CP) oxidation kinetics for some cases

Background (cont.)



2011-2014: 10CFR50.46c

- BWROG assumes background role and monitors progress of 10CFR50.46c rulemaking
- Support of industry engagement with NRC
 - Direct coordination with EPRI Reg-TAC
- BWROG strategically engages issue leaders
 - Remain informed; determine proper response and timing
 - To provide input when needed
 - Generally, BWROG concerns echo industry concerns

Background (cont.)



Generic Safety Issue: GSI-191

- BWROG forms ECCS Suction Strainers Committee (voluntary / action not mandated by PWR-only GSI-191)
- Direct and active engagement with the NRC
- Active engagement and participation of fuel vendors
- Fuels LTR submitted on January 13, 2011
- Final RAI responses submitted on June 28, 2013

The Present



Milestones

- March 24, 2014: Proposed 10CFR50.46c draft rule issued for comment
- April 29-30, 2014: NRC Public Meeting
 - Rules
 - Draft Guidelines
 - Risk-Informed approach
 - Series of public meetings discussed / proposed is seen as a positive development by BWROG
- 10CFR50.46c and GSI-191 merged

The Present (cont.)



BWROG Projects Joint Evaluation of 10CFR50.46c

- Reload Analysis and Core Management Committee (RACMC)
- ECCS Suction Strainer Committee (deterministic approach)
- ECCS Suction Strainers Risk-Informed Solutions Committee (newly formed in May 2014)

ECCS Suction Strainers Committee

- NRC Public Meeting on June 12, 2014: BWROG Executives request review of RAI responses related to 10CFR50.46c rulemaking

Concerns: 10CFR50.46c



BWROG Shares Technical Concerns of NEI / EPRI / PWROG / Fuel Vendors

Rulemaking Versus Guidance

- Proposed rules contain detail that should be moved to guidance or other more malleable document

Proposed Testing Regimen

- Impacts of proposed testing on vendors
 - Translates to potential impact to BWR utilities
- Testing consistency and repeatability issues reported by EPRI are of concern
- Uncertainty in testing translates to potential uncertainties with compliance

Combination of 10CFR50.46c and GSI-191

- Increased complexity of issue
- Increased complexity in rulemaking

Concerns: GSI-191



GSI-191 Timeline

- No certain schedule or path to issue resolution
- Concerns that a realistic schedule would not support proposed rulemaking for combined issues

ECCS SS Risk-Informed Solutions Committee

- Regulatory engagement via NEI anticipated
- Concerns about draft rule's prescriptive wording not being appropriate for BWRs
- Targeting July meeting for initial contact

Concerns: General



Input Opportunities

- Industry proposed additional comment periods and public meetings in 2014
 - To ensure the ultimate rule can be consistently interpreted and executed
 - To understand the complicating factors associated with intersection of 10CFR50.46c and GSI-191 issues
- Concerns about remaining input opportunities not being sufficient to completely vet the rule

Summary



Combination of 10CFR50.46c and GSI-191

- Impact of rulemaking (schedule and compliance) not fully understood

NRC review of ECCS SS RAIs needed to assess impact on rulemaking

NRC / Industry Public Meetings and Interactions

- Thus far positive and productive
- BWROG encourages continued alignment
- BWROG supports additional engagement to facilitate effective vetting of new rule