

Flooding Reevaluated Hazards
Revised Phase 1 Guidance
Development

NRR/JLD
Public Meeting
February 8, 2016

NTTF Rec 2.1- Background

NTTF 2.1 – Hazard Reevaluations

Licensees reevaluate flooding hazard based on present day guidance/methods used to define the design basis for new reactors.

NTTF 2.1 – Interim Actions

If the design basis does not bound reevaluated hazard: Licensees evaluate the need for interim actions while the longer-term integrated assessment is performed

NTTF 2.1 – Focused Evaluations or Integrated Assessment

If the design basis does not bound reevaluated hazard: Licensees determine the effectiveness of the existing DB and any other planned or installed features for the protection and mitigation of flood conditions for the entire flood event duration

Regulatory Actions

NRC staff determines whether additional regulatory actions are necessary to provide additional protection against the updated flooding hazards

PHASE 1: Information Gathering

PHASE 2: Regulatory Decision Making

Integration of Mitigating Strategies

COMSECY 14-0037 – Integration of Mitigating Strategies for Beyond Design Basis External Events and Reevaluation of Flooding Hazards. (November 2014)

Three main recommendations:

- 1. Licensees need to address the reevaluated hazards within their MS for BDB external events,*
- 2. Address specific flooding scenarios using targeted or scenario specific strategies, and*
- 3. Revise R2.1 to integrate Phase 2 decision making into the MS under EA-12-049 & MBDBE rulemaking.*

SRM to COMSECY 14-0037 (March 2015)

Commission affirmed recommendations 1 and 2 and disapproved recommendation 3. For Phase 1, the Commission instead directed staff to reassess the existing guidance:

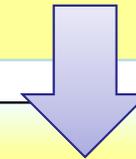
- Include a graded approach in order to focus on plants w/ greatest opportunity for safety enhancements*
- Use a risk informed-performance based approach to reduce conservatisms to the extent practical and identify insufficient conservatisms*
- Evaluate potential changes to introduce more realism*
- Focus on cliff edge effects*
- Consider available physical margin*

NRC developed an action plan to address changes effectively and provide a closure path

Action Plan

COMSECY 15-0019 – Closure Plan for the Reevaluation of Flooding Hazards for Operating NPPs (June 2015)

- *Focused evaluations (local intense precipitation (LIP) and available physical margin (APM))*
- *Revised integrated assessment*



SRM to COMSECY 15-0019 (July 2015)

Commission approves the action plan presented in COMSECY-15-0019

- Key highlights:
 - Graded approach with focus on areas with most potential safety benefits
 - Improve efficiency and maintain appropriate technical rigor
 - Make requirements and rationale more explicit
 - Develop guidance to address changes (with stakeholder input) to ensure clarity and uniformity

Schedule and Milestones

| Deliverable | Completion Date |
|--|------------------------|
| Issue revised phase 1 guidance | June 2016 |
| Licensees to submit focused evaluations | June 2017 |
| Licensees to submit revised integrated assessments | December 2018 |

Source: COMSECY-15-0019

Guidance Elements: Conservatism Reduction

- Guidance should address appropriate justification for reductions in conservatism
- Guidance should identify regulatory treatment of assumptions used to reduce conservatism
 - Regulatory commitments where appropriate
 - Within scope of MBDBE rulemaking where appropriate

Guidance Elements: Available Physical Margin

- Guidance should leverage prior work accomplished
 - Walkdowns
 - Mitigating Strategies Assessments



Guidance Elements: Feasibility/Reliability

- Guidance should address appropriate rigor for the evaluation of manual actions



Next Steps: Revised Phase 1 Guidance

| Item | Date |
|--------------------------------------|-------------------|
| NEI to submit draft guidance | March 1, 2016 |
| ACRS Fukushima sub-committee meeting | April 21-22, 2016 |
| Inform Commission | May 29, 2016 |