# Flooding Reevaluated Hazards Revised Phase 1 Guidance Development

NRR/JLD
Public Meeting
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U.S.NRC
United States Nuclear Regulatory Commission
*Protecting People and the Environment*

# 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 |