

Fukushima Response: Integration of Flood and Seismic Hazards with Mitigation Strategies

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Background

- March 2012 – Mitigation Strategies Order implementation employed design basis hazard levels
- March 2012 - 50.54(f) request for flood and seismic hazard reevaluations
- Flood hazard reevaluations submitted in March 2013, 2014 and 2015
- Seismic reevaluations submitted in March 2014 and 2015

Flood Reevaluations

- More than adequate for Mitigation Strategies Assessment (MSA)
- Need NRC endorsement of MSA guidance
- Need to expedite NRC staff review letters so that MSAs can be completed in 2016
- Need to factor in NRC review of MSA results so that any resulting actions can move forward

Seismic Reevaluations

- Expedited Seismic Evaluation Process (ESEP) for sites where the reevaluated hazard exceeds the design basis between 1 and 10 Hertz
- ESEP focuses on Phase 1 of Mitigation Strategy
 - Permanent plant equipment with key functions
- 32 stations submitted ESEPs in December 2014
 - Confirmed robustness of seismic design

Seismic Challenges

- Discussion underway on scope and methods to assess plants/strategies where the reevaluated hazard exceeds the design basis
- Guidance development, endorsement and execution by 2016 will require focused effort
- Goal is to provide additional confidence that mitigation strategy would remain viable

Conclusions

- A substantial amount of analysis and review work remains for licensees and NRC
- All plants will have mitigating strategies substantially complete by the end of 2016
- Goal is to have all plants assess their mitigating strategies against reevaluated hazards in 2016
- Need to retain focus on integration of efforts
 - Rulemaking should help provide this focus