

Briefing on the Status of Lessons Learned from the Fukushima Dai-ichi Accident

Industry Progress

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Key Messages

- FLEX implementation largely complete in 2016
 - Pool instrumentation complete in 2016
 - BWR Mark I & II vents complete in 2018/19
- Continued focus on FLEX through inspections
- Support staff on disposition of Tier 2/3 actions
- Committed to complete majority of mitigation strategy assessments before NRC rulemaking
- NRC rulemaking aligned with significant efforts undertaken by industry/NRC

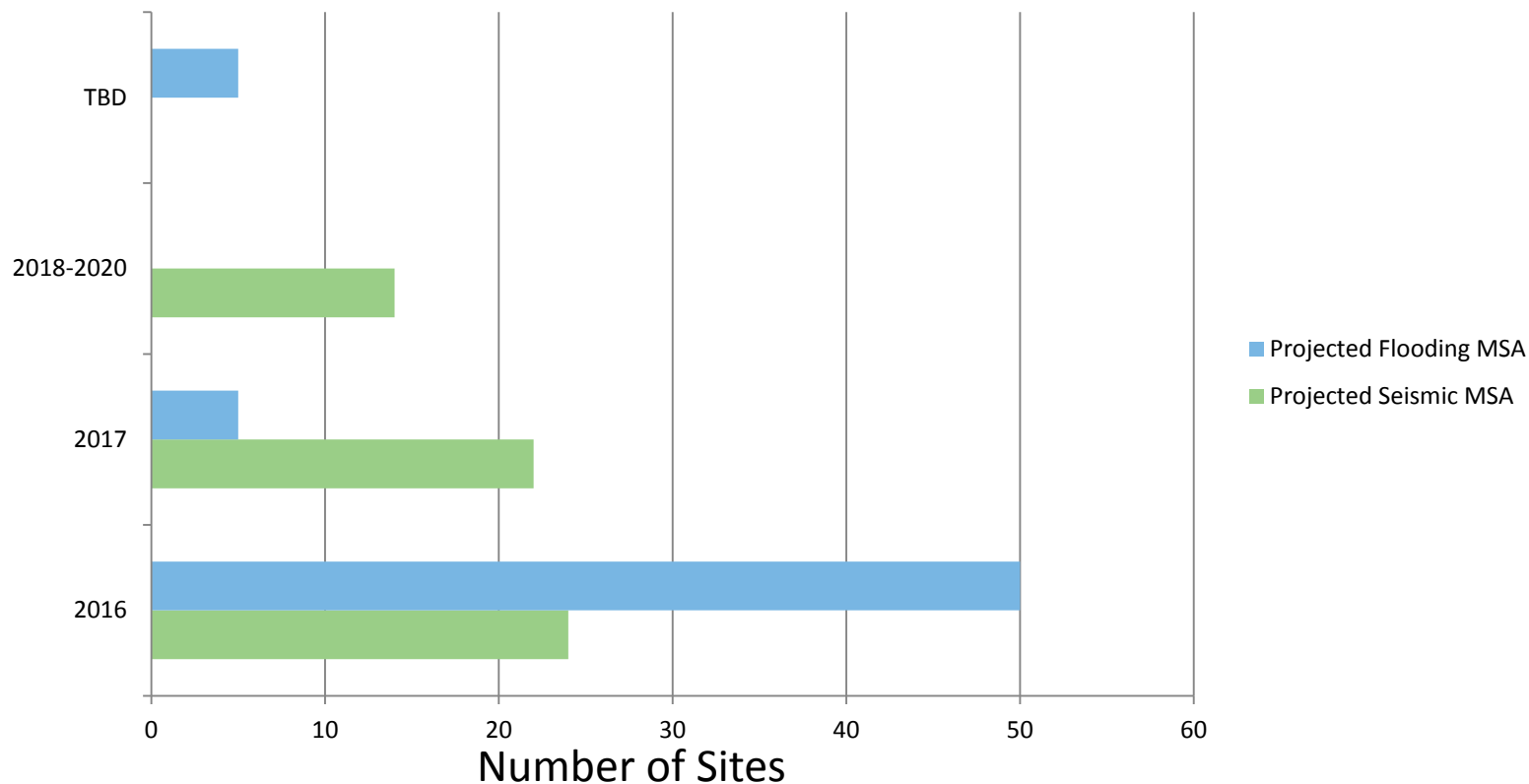
FLEX Implementation

Status	Units
Implementation complete	58
Implementation complete by Fall 2016	29
Implementation complete with the exception of severe accident capable vent	13

FLEX Inspections

- Focus of FLEX implementation shifting to inspections
- Critical importance of knowledge transfer between NRR and Regions
- Additional NRC staff becoming involved with beyond-design-basis events
- Industry task force established to promote consistency
- Lessons learned will be shared with industry and NRC
- Concern with potential for growth in inspection scope without careful NRC management oversight

Flooding and Seismic Mitigation Strategy Assessments (MSA)



*TBD – Majority awaiting FHRR acceptance letter

Seismic MSA for SPRA Sites

- Current focus area for industry and NRC
- Proposed MBDBE rule language sufficiently flexible to allow a risk-informed approach
- Utilize SPRA insights to assess potential for reduction of ELAP/LUHS risk
- Limited benefit of SPRAs for plants with mitigating strategies demonstrated effective using deterministic methods

Flooding Integrated Assessments

- NEI 16-05: External Flooding Assessment Guidelines - provided to the NRC for endorsement in April 2016
- Utilizes Mitigating Strategies for Local Intense Precipitation hazard
- No significant flooding risk reduction expected as a result of performing Integrated Assessments

Proposed NRC Rule for Mitigation Strategies

- Incorporates most important actions undertaken by industry and NRC since 2011
- Focus on codification of existing requirements, not imposition of new requirements
- Industry supports the issuance of this rule in 2017
- Key comments provided in February address implementation schedule, change control process, and the methodology to address reevaluated hazards

Summary

- Safety enhancements have been significant - based on well defined lessons learned from Fukushima
- Safety always has been and will continue to be our foremost priority
- 2016 is critical for completion of Fukushima actions
- Committed to maintain focus beyond 2016 to preserve the significant safety enhancements

Acronyms

- NRC- Nuclear Regulatory Commission
- NRR – Office of Nuclear Reactor Regulation
- MSA - Mitigation Strategy Assessment
- FHRR – Flooding Hazard Reevaluation Report
- SPRA – Seismic Probabilistic Risk Assessment
- MBDBE – Mitigation of Beyond-Design-Basis Events
- ELAP – Extended loss of AC Power
- LUHS – Loss of Ultimate Heat Sink