



Status of Lessons Learned from the Fukushima Dai-ichi Accident

**Joint Steering Committee Meeting
February 3, 2017**

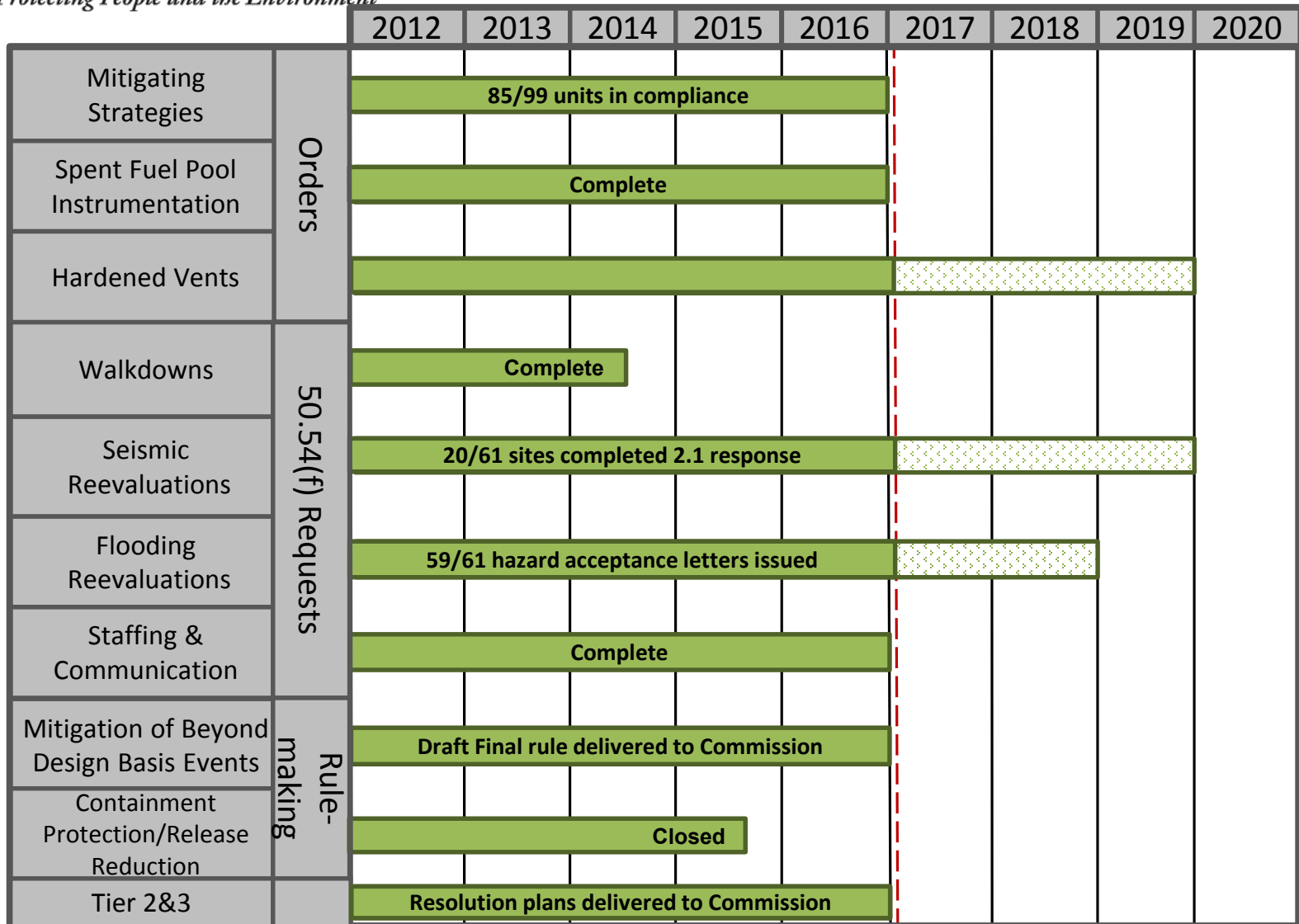


Agenda

- Implementation Status
 - Mitigating Strategies
 - Flooding and Seismic Reevaluation
 - Hardened Vents
- Mitigation of Beyond-Design-Basis Events Rulemaking
- Remaining Tier 2/3 Recommendations
- Credit for FLEX in other Regulatory Applications
- Maintenance Rule Guidance for FLEX
- Remaining Tier 1 Work
- Path Forward
- Public Comments and Questions



Tier 1 Activities



Mitigating Strategies

- Continuing to issue safety evaluations
- Temporary Instruction-191 inspections underway (14/61 complete)
 - No safety significant findings
- Pilot inspection of National SAFER Center complete



Industry lessons learned workshop

Flooding and Seismic Reevaluation

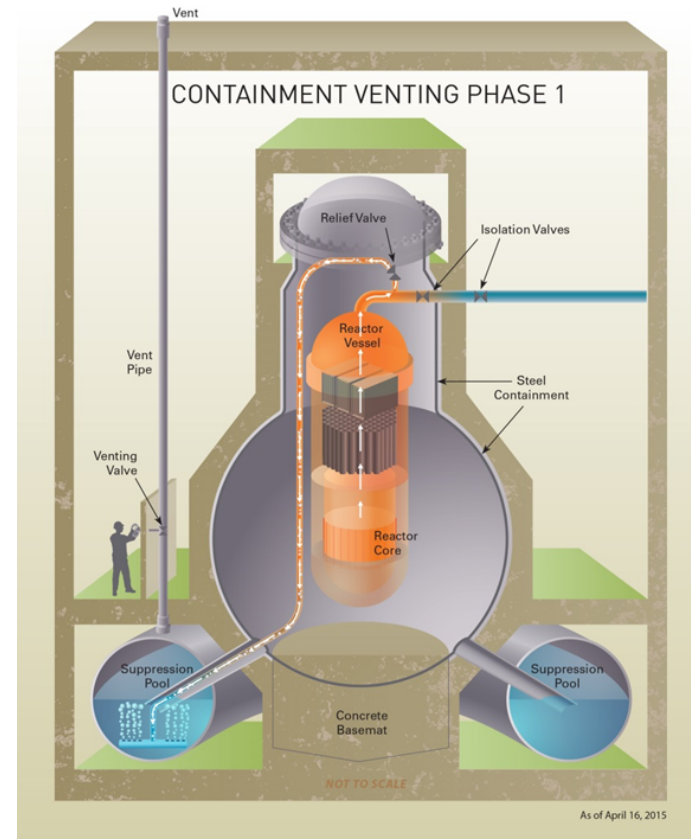


- Flooding
 - 59/61 hazard acceptance letters issued
 - 10/61 MSA reviews complete
 - 8 sites completed Recommendation 2.1 response
- Seismic
 - Staff assessments issued for all U.S. sites
 - SPRA review plan finalized
 - 22/61 MSA reviews complete
 - 20 sites completed Recommendation 2.1 response
- 18 sites expected to complete SPRA
- Phase 2 guidance developed
- Hazard refinement review schedule



Hardened Vents

- Phase 2 interim staff evaluations completed ahead of schedule (17 sites)
- Staff is working with the licensees to expedite closure
- Inspection will be developed summer 2017



MBDBE Rulemaking

- Draft final rule submitted to Commission December 2016
- Extensive outreach
- Enhanced from stakeholder feedback
 - Flexible implementation schedule
 - Guidance for decommissioning plants
 - Remove redundant requirements
 - Addressed non-concurrences



Remaining Tier 2/3 Recommendations

- SECY-16-0144 submitted to Commission December 2016
- No additional regulatory actions for:
 - Real-time radiation monitoring
 - Natural hazards other than flooding and seismic
- Enhance existing processes for identifying and evaluating external hazard information



Credit for FLEX in Other Regulatory Applications

- Issued letter from NRR Office Director
- Reviewing NEI 16-06 “Crediting Mitigating Strategies in Risk-Informed Decision Making”
- RASP manual changes issued
- Following all submittals concerning FLEX equipment
- RIC session planned



Maintenance Rule Guidance for FLEX

- On January 18th, 2017 a public meeting is scheduled for final discussion on the revision of NUMARC 93-01 (endorsed via RG 1.160), Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants.
- NRC staff position on use of FLEX in Emergency Operating Procedures
 - FLEX used for mitigation of beyond design bases accident is outside the scope of the maintenance rule.
 - FLEX used for mitigation of design bases accident would require an appropriate technical basis to demonstrate that these changes do not impede the successful implementation of other SSCs credited in the EOP.



Remaining Tier 1 Work

Mitigating Strategies

- Safety evaluations
- TI-191 inspections

Hardened Vent Order

- Safety evaluations
- Develop and conduct post-compliance inspection

Flooding and Seismic

- SPRA reviews
- Focused evaluation flooding reviews
- Flooding integrated assessment reviews
- High frequency seismic reviews
- Spent fuel pool seismic evaluation reviews

MBDBE Rulemaking

- Commission decision
- Issue Regulatory Guides
- Mitigating strategies assessments
- Finalize Seismic Path 5 guidance
- Develop long-term inspection procedure



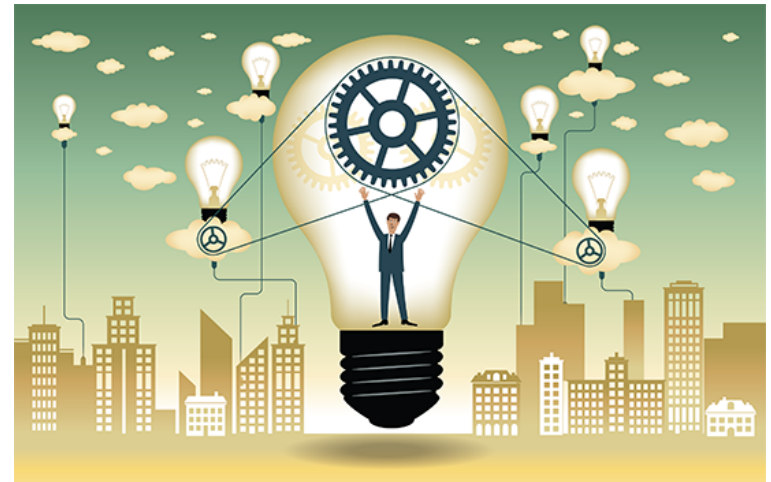
Path Forward

- Sunset NRC Steering Committee
- Merge JLD into line organization in 2018
- Continue work on credit for FLEX in other regulatory applications



Closing Remarks

- A well-defined path forward is in place for remaining work
- Future JLD structure will support continued focus and stakeholder engagement
- Knowledge management and transfer



Additional Industry Comments



Public Comments



Acronyms

- ACRS – Advisory Committee on Reactor Safeguards
- FLEX – Diverse and Flexible Coping Strategies
- JLD – Japan Lessons-Learned Division
- MBDBE – Mitigation of Beyond-Design-Basis Events
- MSA – Mitigating Strategies Assessment
- NRR – Office of Nuclear Reactor Regulation
- RASP – Risk Assessment Standardization Project
- RG – Regulatory Guide
- RIC – Regulatory Information Conference
- SPRA – Seismic probabilistic risk assessment

