



**U.S.NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

# **NTTF Recommendation 2.1**

## **Seismic**

October 27, 2014

Cliff Munson, Andrea Kock, Diane Jackson,  
Sheena Whaley, Nick DiFrancesco

Office of Nuclear Reactor Regulation  
Office of New Reactors



## **Today's Agenda**

- **Seismic Hazard Review Update for Central and Eastern United States (CEUS) Sites**
- **Expedited Seismic Evaluation Process Review Schedule**
- **High Frequency Presentation**
- **Spent Fuel Pool Evaluation Update**
- **Western US submittals preparation**
- **Public comments and questions**



# Seismic Hazard Reviews for CEUS Sites



# Seismic Hazard Review Updates

## Overview

- Screening Decision Completed
- RAI Schedule
- Projected Staff Assessment Schedules
- Development of letter to licensees on use of hazard for risk evaluations

---

RAI - Requests for Additional Information



## **Screening and Priority Reviews**

- Screening decisions completed
- Final screening letters expected to be issued through mid-November 2014



## **Hazard Review and RAI Plans**

- Staff assessments to document RAI resolution in support of SPRA activities and public meeting knowledge gains
- Group 1\* sites – some NRC RAIs sent; 1 pending
- Group 2 and 3 – Draft RAIs to revise differences
  - Late Oct/ Early Nov – RAIs shared with licensees
  - Early/Mid December – Responses to RAIs expected
- Screened-out Plants
  - RAIs are not expected

---

\* Seismic review groups defined by May 9, 2014 letter (ML14111A147)  
SPRA – Seismic Probabilistic Risk Assessment



## **Seismic Hazard Staff Assessments**

- Intended to document seismic hazard are appropriate for SPRA Reviews
- Projected staff assessment completion dates without planned supplements
  - Group 1 – May 2015
  - Group 2 – June 2015
  - Group 3 – July 2015
  - Screened-out – Aug/Sept 2015



## **Industry Letter on Hazard Reviews**

- Seismic Hazard is suitable for SPRA development if no RAI
- NTTF 2.1 review is a snapshot in time
- Changes to hazards following NRC Staff Assessment maybe re-reviewed
- Open communications with early SPRA submittals





## **Seismic Hazard Review Milestones**

- Technical Review of Site Screening (completed)
- Group 1\* site NRC RAIs sent (completed)
- Group 2 and 3\* site draft RAIs to licensee (mid-Nov)
- Letter to licensees on use of hazard for risk evaluations (mid-Nov)
- Issuance of Staff Assessment of Reevaluated Hazards by Group (May 2015 through September 2015)
- Western Reevaluated Hazard Reports (March 2015)

---

\* Seismic review groups defined by May 9, 2014 letter (ML14111A147)



# **Expedited Seismic Evaluation Process (ESEP) Review Planning**



## **ESEP Review Preparations**

- September 2014 - Industry issued template
  - November 2014
    - Preparation for NRC reviews
    - NRC response to commitment change for screened-out IPEEE sites
  - December 2014
    - Licensee Submittals
    - Finalize SA Template
  - January 2015
    - Initial Decision on Prioritization
-



## **ESEP Review Approach**

- **Four Reviews Batches**
  - Batch 1 – 3 primarily based on seismic priority group and modification type & schedule
  - Batch 4 is planned for the 3 western sites (as needed)
- **Review Team Approach**
  - Equipment and Systems
  - Civil, Structural, and Mechanical Components
  - Seismology



# **Expected ESEP Staff Assessment Dates**

- **Batch 1: 2<sup>nd</sup> Quarter 2015**
- **Batch 2: 3<sup>rd</sup> Quarter 2015**
- **Batch 3: 1<sup>st</sup> Quarter 2016**
- **Batch 4: 2<sup>nd</sup> Quarter 2016**



# **Hazard Reevaluation review plans for Western United States (WUS) Sites**



# **Hazard Reevaluation reviews for WUS plants**

- Submittal of SSHAC PSHA reports
- Rock Hazard for Sites

---

SSHAC – Senior Seismic Hazard Analysis Committee  
PSHA – Probabilistic Seismic Hazard Analysis



# Key Messages and Next Steps





## **Key Messages**

- Progress continues on NTTTF 2.1
- Adherence to the agreed upon guidance important to efficiencies
- Continue submittal quality with ESEP
- Continue plant specific communications with JLD Project Managers on review issues and timelines



## **Upcoming NTTF 2.1 Activities**

- Finalized Screening and Prioritization Determination (October 2014)
- Group 2 and 3 RAIs to Licensees (Nov 2014)
- Letter on preliminary GMRS review (Nov/Dec 2014)
- ESEP Review Kickoff (January 2015)
- Discussion of submittals for High-Frequency and Spent Fuel Pool (Fall 2014/Winter 2015)



## **Upcoming NTTF 2.1 Activities (cont.)**

- Issuance of Staff Assessment of Reevaluated Hazards (May 2015 to September 2015)
- Issuance of ESEP Staff Assessment (Q2 2015 to Q2 2016)
- Western Reevaluated Hazards Reports Submittals (March 2015)



# Public Questions or Comments?