

**NRC Commission Briefing:  
Japan Near-Term Task Force  
Recommendation 2.1 for  
Seismic Hazard Evaluations**

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# Overview

- **Operating experience globally demonstrated margin exists to withstand potential earthquakes exceeding design basis**
- **GI-199 conclusions remain valid**
- **Mitigating strategies and design changes will provide additional capacity**

# **Timeline**

## **Seismic Re-evaluations**

- **2005 - 2011 – Generic Issue (GI)- 199**
- **July 2011 – Fukushima NTTF Report issued**
- **March 2012 – NRC issues 50.54(f) letter**
- **February 2013 – NRC endorsement of risk-based guidance**
- **May 2013 – Endorsement of ESEP guidance**
- **March 2014 – Industry submittal of re-evaluated seismic hazard**
- **May 2014 – NRC screening and prioritization of hazard submittals**

# **EPRI Report on Fleet Seismic Core Damage Frequency**

- **Calculated using latest seismic hazard information**
- **Margin to withstand potential earthquakes exceeding design basis**

**NRC review confirmed  
the GI-199 conclusions  
remain valid**

# Updated Seismic Hazards

- **All CEUS plants re-evaluated seismic hazard, using the latest guidance and methodologies**
- **Some plants will perform more detailed risk evaluations**
- **If plant GMRS > SSE, screens in for expedited seismic evaluation**

**NRC: plants safe to continue operating - seismic risk consistent with 2010 conclusions**

# **Expedited Seismic Evaluation Process**

- **Demonstration of seismic margin**
- **Linked to FLEX - permanent plant equipment used to initially cope with loss of AC power**
- **Provides assurance while seismic PRAs are conducted**

**Result: safe shutdown pathway can withstand a higher than design basis earthquake**

# Next Steps

- **Conduct expedited and longer term risk-based evaluations**
- **High frequency evaluations**
- **Consider effects on mitigating strategy**
- **Strategic review of longer term activities - regulatory stability**

**Nuclear Fleet is  
Seismically Robust**

# Acronyms

**CEUS – Central and Eastern U.S.**

**ESEP – Expedited Seismic Evaluation  
Process**

**GMRS – Ground Motion Response  
Spectra**

**NTTF – Near Term Task Force**

**PRA – Probabilistic Risk Assessment**

**SSE – Safe Shutdown Earthquake**