



Pre-Submittal Meeting to Discuss Upcoming NextEra Energy License Amendment Request to Adopt 10 CFR 50.69

November 10, 2022



Participants

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Agenda

- **Purpose**
- **Regulatory Guidance**
- **PRA Model Technical Adequacy**
- **10 CFR 50.69 LAR Overview**
- **Current Schedule**
- **Closing Remarks**

LAR – License Amendment Request

PRA – Probabilistic Risk Assessment

Purpose

Purpose of adopting 10 CFR 50.69 at St. Lucie (PSL):

- Continues the strategy of adopting risk-informed decision-making processes across the fleet
- Utilize existing infrastructure (e.g., PRA models) to:
 - Improve focus on risk significant components, which improves safety
 - Apply alternate treatments to low-risk components, which improves operational flexibility and safety

RISC-1 Safety Related Safety Significant	RISC-2 Non-Safety Related Safety Significant
RISC-3 Safety Related Low Safety Significant	RISC-4 Non-Safety Related Low Safety Significant

Regulatory Requirements and Guidance

- **10 CFR 50.69, “Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors.”**
- **10 CFR 50.90, “Application for amendment of license, construction permit, or early site permit.”**
- **NEI 00-04, Revision 0, “10 CFR 50.69 SSC Categorization Guideline”**
- **EPRI 3002017583, “Alternative Approaches for Addressing Seismic Risk in 10 CFR 50.69 Risk-Informed Categorization”**

PRA Model Technical Adequacy

- **Internal Events and Internal Flooding PRA Model**
 - Full-scope peer review in July 2002
 - Several self-assessments and focused-scope peer reviews followed (details in the LAR)
 - Finding closure review conducted in September 2017
 - Reviewed as part of NFPA 805, RMTS, and SFCP
 - No open finding-level facts and observations (F&Os)

- **Fire PRA Model**
 - Full-scope peer review in June 2010
 - Focused-scope peer reviews in 2013
 - Finding closure review conducted in September 2017
 - Reviewed as part of NFPA 805, RMTS, and SFCP
 - Three open finding-level F&Os will be addressed in the LAR

10 CFR 50.69 LAR Overview

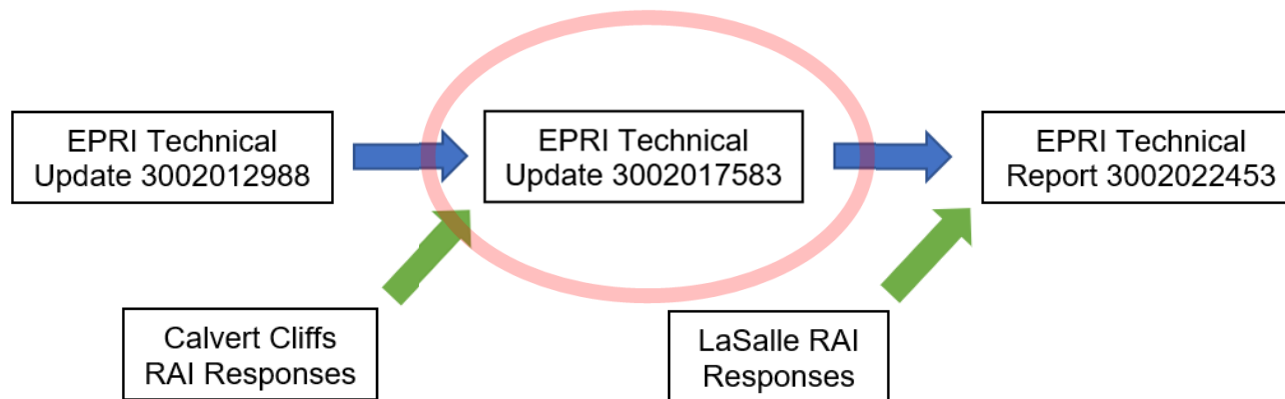
- **Follows NEI 00-04**
- **PRA evaluations utilizing internal events, internal flooding, and fire PRAs**
- **Non-PRA evaluations such as external events screening and shutdown assessment**
- **Alternative approach for seismic risk categorization (Tier 1) using EPRI 30020175083**
- **Seven qualitative criteria in Section 9.2 of NEI 00-04**
- **Defense-in-depth assessments**
- **Passive categorization uses ANO-2 methodology**
- **Does not credit FLEX strategies**
- **Includes criteria for when categorization results need reevaluation due to issues that significantly impact the PRA models**
- **Models were reviewed for key assumptions and sources of uncertainty; each source was evaluated for impacts to 10 CFR 50.69**

10 CFR 50.69 LAR Overview – External Hazards

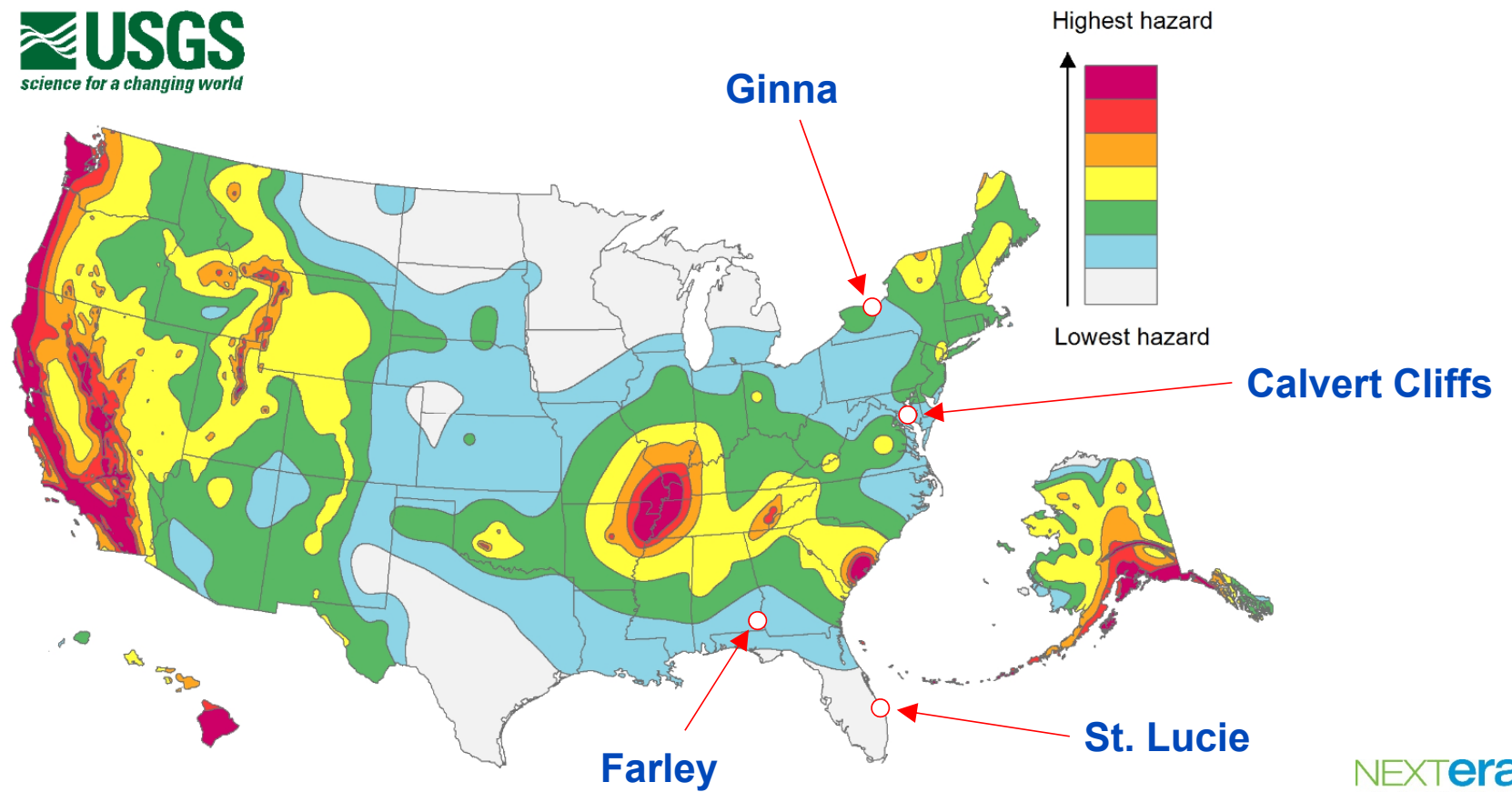
- **Screened in accordance with Generic Letter 88-20, NUREG/CR-2300, and NUREG-1407**
- **Updated to use criteria in ASME/ANS PRA Standard RA-Sa-2009**
- **All external hazards screened from applicability except internal flooding, internal fire, and seismic activity**
- **Future identification of unscreened hazards will follow NEI 00-04, Figure 5-6**

10 CFR 50.69 LAR Overview – Seismic Risk

- Approach for seismic categorization will follow EPRI 3002017583
- PSL meets the criteria for Tier 1 methodology
- EPRI 3002017583 uses the methodology for Tier 1 that was reviewed and approved by the NRC for (Calvert Cliffs Amendment 332/ML19330D909)

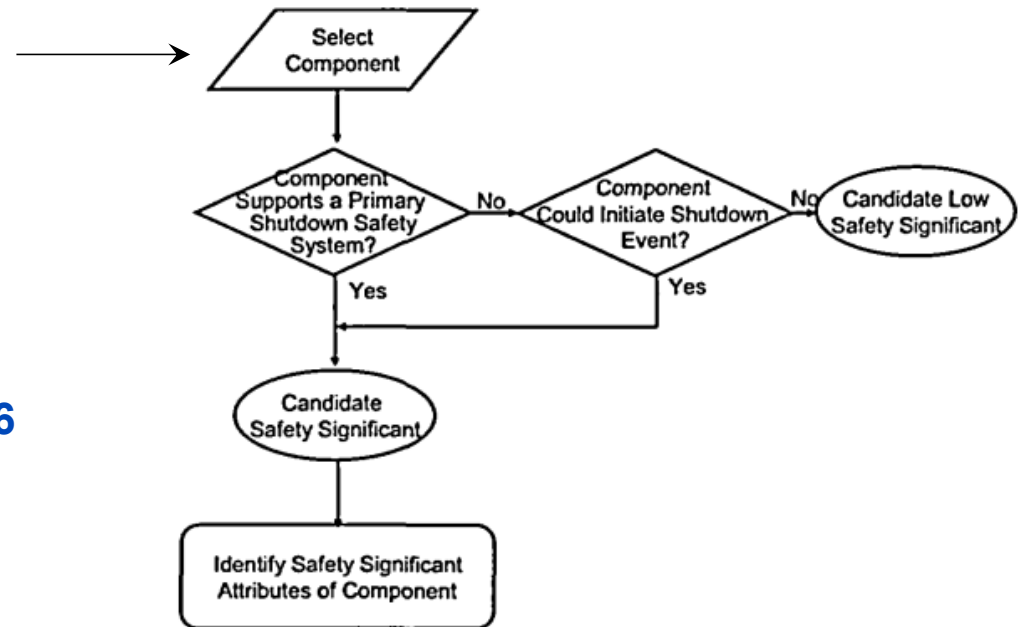


Precedents – Seismic Tier 1



10 CFR 50.69 LAR Overview – Shutdown Risk & Integral Assessment

- Shutdown risk follows the process illustrated in NEI 00-04, Figure 5-7
- Will use the shutdown safety management plan in NUMARC 91-06
- Integral assessment performed manually using NEI 00-04, Section 5.6



Current Schedule

- **Plan to submit 10 CFR 50.69 LAR by December 6, 2022**
- **Approval requested within 13 months**
 - One month acceptance review
 - 12-month LAR review
- **Plan to implement the amendment within 90 days**

Closing Remarks

- **PRA models are technically adequate and have been reviewed by the NRC in other applications**
- **SSC categorization follows NEI 00-04**
- **EPRI Tier 1 methodology for seismic is consistent with other precedents**
- **LAR includes learnings from many other submittals**
- **Not crediting FLEX equipment or operator actions**

Questions

