

Southeast REP Workshop

U.S. Nuclear Regulatory Commission Updates

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Discussion Topics

- Rulemaking Activities
- New Reactor Licensing Activities Update
- Emergency Preparedness Significance Determination Process (EP SDP) Focused Self-Assessment (FSA)
- 2021 – #2 Eight Year Exercise Cycle
- Lessons Learned from the 2017-2018 Hurricane Season
- FEMA Interactions
- Integrated Public Alert and Warning Systems (IPAWS)

Rulemaking Activities

- Transition to Decommissioning Rulemaking
 - Draft proposed rulemaking was provided to the Commission on May 7, 2018
- EP for Small, Modular Reactors (SMRs) and Other New Technologies (ONT) Rulemaking
 - Draft proposed rulemaking provided to the Commission on Oct 10, 2018

TVA Early Site Permit Application (ESPA) for Clinch River Nuclear (CRN) Site

- ACRS letter to the Chairman on Jan. 9, 2019 concluded:
 - SMRs with design characteristics within the plant parameter envelope used by TVA can be constructed and operated without undue risk to the health and safety of the public
 - The staff's Safety Evaluation Report (SER) of the TVA ESPA should be issued
 - The early site permit for the CRN Site should be issued

TVA ESP ESPA for CRN Site (cont.)

- Mandatory Hearing will be with the Commission rather than Atomic Safety and Licensing Board (ASLB)
 - Three proposed dates for the hearing being considered (earliest is Aug. 12, 2019; latest is Sept. 9, 2019)
 - Only novel issue currently identified by the Commission is “Emergency Planning Zone sizing”

Emergency Preparedness Significance Determination Process (EP SDP)

- The Nuclear Energy Industry (NEI) Submitted a letter in December of 2017 that recommended improvements to the EP SDP (ADAM Accession No. ML17354A094)
- In response the agency convened an expert team of regional and HQ staff to perform a Focused Self Assessment (FSA) of the EPSPDP from its inception until now.

EP SDP (cont.)

- FSA draft report conclusions:
 - Current EP SDP is sound
 - 24 preliminary enhancement opportunities to be considered; 22 from NRC; 2 from NEI; 7 have been completed and closed
 - Items needing approval to be submitted to the Commission by June 2019.

EP SDP (cont.)

- Potential significant changes:
 - Add guidance to better risk inform EALs, dose assessment modeling, 10 CFR 50.54(q), Fission Barrier Matrix, and Radiation Monitoring Instrumentation
 - Add Performance Indicators to the EP Reactor Oversight Program (ROP) to support a 24-month 10 CFR 50.54(t) audit frequency
 - Revise Standard Review Plan
- FSA results will be included in an agency wide ROP Enhancement Project, led by NRR

2021 – #2 Eight Year Exercise Cycle

Hostile Action Based (HAB) Exercises

- January 1st 2021 begins the new 8-year exercise cycle
- 1st HAB, Release or No Release?
- Scenario Stakeholder Engagement can't begin too early
- HAB Exercise:
 - ***Is an*** evaluation of onsite and offsite radiological emergency response coordination with in an unknown security state
 - ***Is not*** an evaluation of Security response.
- NEI 06-04 Rev 2, Appendix A - Endorsed HAB objectives.

Lessons Learned from the 2017 Hurricane Season

- Changes made after 2017
 - Revised NRC Inspection Manual Chapter (IMC)-1601 and FEMA Standard Operating Guide to clarify NRC and FEMA communication and coordination at the regional level prior to, during, and subsequent to a hurricane
 - Revised IMC-1601 to clarify NRC authorities regarding reactor start-up and shutdown
 - Conducted a joint tabletop with NRC, FEMA, Offsite Response Organizations (OROs), and licensees to validate changes to IMC-1601
 - And are planning to conduct another in 2019 with Duke
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Lessons Learned from the 2018 Hurricane Season

- Issues identified in 2018
 - Address communication and coordination with FEMA Tech Hazards representative staffing the National Resource Coordination Center (NRCC) to include:
 - Site-specific reference materials that can be provided to FEMA in advance of hurricane or severe weather event (e.g., EAL threshold, offsite power sources, spent fuel pool considerations)
 - Coordination of timing for NRC input to support NRCC SITREPs
 - FEMA POC at NRC to obtain updates on incident response activities related to affected NRC licensees, etc.

FEMA Interactions

Current discussions include:

- Hurricane Responses
(plant startup before Preliminary Capabilities Assessment/
Disaster Initiated Review)
- New reactor licensing (risk-informed emergency
planning zone sizing)
- Decommissioning (timing of reducing emergency
planning requirements)

Integrated Public Alert and Warning Systems (IPAWS)

- FEMA encouraging use since 2016
- NRC Licensees showing Interest in IPAWS
- NRC Licensees required to demonstrate reasonable assurance and adequate protection through the use of a viable Alert and Notification Systems (ANS).

IPAWS vs. Sirens?

- Licensees do not have nuclear regulatory requirements for sirens to be the primary method an ANS.
 - Exceptions exist
- Licensees deciding to implement IPAWS in lieu of sirens should engage with NRC and FEMA including HQs involvement.

APPROVAL and REVIEW OF ANS?

- **The NRC has the final authority for approval of/acceptance a licensee's ANS Design.**
- **10 CFR 50.47 (c) (1) "Realism Rule"**
 - Refusal of a local gov. or ORO to use IPAWS does not prevent the licensee from moving forward with a proposal for a change in its ANS.
- **Process Licensees should use for changes to ANS:**
 - 10 CFR 50.54 (q) change process
 - the 10 CFR 50.90 license amendment request process.

Pending Discussions on IPAWS

FEMA

- FEMA Design Criteria for Approving IPAWS?
- Understand how FEMA will test IPAWS

Public Meeting (~ end of February 2019)

- Public Meeting with Industry and FEMA on IPAWS.