



Current Activities in Risk Informing External Hazards Analysis:

Process for Ongoing Assessment of Natural Hazard Information (POANHI)

Stephanie Devlin-Gill
Office of New Reactors
March 14, 2018



Introduction and Outline

The purpose of this presentation is to describe the US NRC staff's plans to implement the enhanced Process for Ongoing Assessment of Natural Hazard Information (POANHI).

- Background
- Goals of POANHI
- Attributes of POANHI
- POANHI Framework
- Current Activities

2



Background

- Post-Fukushima Near-Term Task Force Recommendation 2.2 (R2.2) advised rulemaking requiring nuclear power plant licensees confirm seismic and flooding hazards every 10 years.
- In SECY-15-0137, the staff proposed to meet the intent of R2.2 by enhancing existing processes to ensure that staff proactively and routinely aggregates and assesses new natural hazard information.
- In SECY-16-0144, the staff provided a comprehensive plan.
- In SRM-SECY-15-0137 and SRM-SECY-16-0144, the Commission approved the staff's implementation of the proposed process.

3


USNRC
 United States Nuclear Regulatory Commission
 Protecting People and the Environment


RIC 2018



Goals of POANHI

- Facilitate more proactive and systematic assessment of new natural hazards information (e.g., data, models, and methods) to assess their impacts on existing natural hazard estimates.
- Create a predictable and stable internal process that will lead to greater efficiency and effectiveness in the NRC's regulatory processes for identifying and evaluating the impacts of new natural hazards information without placing unnecessary burden on NRC licensees.
- Facilitate the accumulation and methodical evaluation of the cumulative effects of new natural hazards data, models, and methods.

4


USNRC
 United States Nuclear Regulatory Commission
 Protecting People and the Environment


RIC 2018



Attributes of POANHI

- Enhances safety
- Efficiently integrates with existing processes
- Provides stability and predictability

5


USNRC
 United States Nuclear Regulatory Commission
 Protecting People and the Environment


RIC 2018



POANHI Framework

- Knowledge base
- Active technical engagement and coordination
- Ongoing Assessment activities

6



Knowledge Base

- The staff is working with Idaho National Laboratory (INL) to leverage an existing INL infrastructure to develop the Natural Hazards Information Digest for operating power plant sites.
- The Natural Hazards Information Digest will be used to organize the natural hazards information in order to support agency activities.
- The staff will maintain the digest to reflect information collected, aggregated, and assessed as part of POANHI.

7



Technical Engagement and Coordination

Leverage and enhance ongoing interactions with internal and external partners (including other Federal agencies, academia, industry, regulators from other countries, and other technical and scientific organizations) to ensure that the staff routinely and systematically collects pertinent new hazard information from a variety of sources.

8



Ongoing Assessment Activities

- Aggregation and evaluation of the significance of new natural hazards information.
- Determination of risk significance using available information and risk insights.
- Referral of potentially risk-significant issues to appropriate regulatory programs.

9

Ongoing Assessment Activities

- Assess new information to determine whether it has any potential to impact plant safety.
 - If low safety significance, the results of the assessment will be documented and the knowledge base will be updated.
 - If potentially high safety significance, the issue will be referred to appropriate regulatory programs for detailed assessment and further action (e.g., Generic Issues Program, Identification of the need for further research).
- Consistent with current NRC practices, the staff will engage external stakeholders at appropriate times in the process (e.g., via public meetings and public comment periods).

Current Activities

- A cross-agency team has been formed to implement POANHI.
- The team is working to draft an Office Instruction and has begun testing and populating the Natural Hazards Information Digest.
- Commission identified completion and implementation date for POANHI is October 2019.
