

Uncertainty Workshop Seismic Session summary

The seismic session had participation from the NRC and external stakeholders. The first day of the workshop included four presentations on the subject from: Jim Xu, Annie Kamerer, and Greg Hardy from the NRC and M.K Ravindra from MK Ravindra Consulting. Each of these participants had the opportunity to express their points of view on what they thought were the highest sources of uncertainty in seismic analysis.

A whole group discussion was held in the afternoon to characterize the highest sources of uncertainty. The discussion was focused on the following areas:

- Seismic hazard uncertainty
 - Main source of seismic uncertainty
 - Seismic source characterization- uncertainty has gone down. Characterization is a medium source of uncertainty.
 - Others include use of outdated information, site characterization and site response.
- Seismic fragility uncertainty
 - Fragility method- low source of uncertainty.
 - Failure mode- high source of uncertainty
 - Fragility estimation- medium source of uncertainty
- Plant response and quantification uncertainty
 - Treatment of human error is the governing factor of uncertainty