



High Level Review of Recent and Anticipated Seismic Research Activities at the NRC

Dr. Thomas Weaver

(Geotechnical Engineer/Seismologist at US NRC)

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11:00 am – 12:00 pm

1233 Newmark Civil Engineering Building

Biographic Information

Thomas Weaver works in the Office of Research at the U.S. Nuclear Regulatory Commission (NRC). His responsibilities include conducting and managing research with the goal of assisting staff in performing regulatory reviews and updating regulatory guidance. Recent work activities include performing regulatory reviews of seismic hazard re-evaluations for US nuclear power plants and developing computational tools to assist staff with seismic and flooding hazard analyses. Prior to joining the NRC, Thomas worked on the civil engineering faculty at the University of Idaho where he participated in research projects focusing on deep foundations and biologic induced cementation in soils. Thomas has also worked as a consulting geotechnical engineer.

Thomas earned B.S. and M.S. degrees in civil and environmental engineering from Brigham Young University and a Ph.D. in structural engineering from the University of California, San Diego.

Presentation Abstract

Seismic research at the NRC spans the fields of seismology, geotechnical engineering and structural engineering. Research projects support evaluating the safety of existing and proposed nuclear power plants. Current research projects include developing Next-Generation Attenuation models for the central and eastern U.S. (NGA-East), NRC Shake-Cast, developing a community liquefaction triggering database in collaboration with the Next Generation Liquefaction project, updating senior seismic hazard analysis committee (SSHAC) guidelines, behavior of dense sands under multi-directional loading, site response analysis topics and developing guidance on hazard consistent seismic soil-structure interaction analyses. This presentation will review some of these current research projects.