



Vancouver Geotechnical Society
A Local Section of the Canadian Geotechnical Society

www.v-g-s.ca

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NOTICE OF UPCOMING DINNER PRESENTATION

WEDNESDAY, DECEMBER 04, 2013

SUBJECT: Estimation of Parameters for Seismic Design in Peru

SPEAKER



Dr. Manuel Monroy

Golder Associates Limited, Vancouver, Canada

Dr. Manuel Monroy is a geotechnical and seismic specialist with experience in probabilistic and deterministic methods for determining levels of seismic hazard, liquefaction analyses, soil-structure interaction, seismic response analysis and engineering design.

Manuel has been involved in the development of a wide variety of mining and natural gas projects where the seismic assessment was a critical component in project development and design. He has participated in the design of heap leaches and large tailings dams, foundation design for LNG tanks, and seismic assessment for natural gas pipelines. Manuel has led and reviewed several deterministic and probabilistic seismic hazard assessments for major mining projects throughout the Americas.

For the past four years, Manuel's experience has mainly focused on onshore pipeline earthquake engineering issues for the Oil and Gas Industry. He worked on measuring, characterizing, and mitigating levels of soil restraint for the seismic design of buried pipelines crossing strike-slip and reverse thrust faults.

Manuel has actively contributed to the understanding of levels of seismic hazard for seismic mitigation in Peru, for which he received the Golder Associates Victor Milligan Award for the best paper on Ground Engineering in 2012.

Manuel holds a Bachelor's degree in Civil Engineering from the University of Saint Agustin, Peru (2000), a Master's degree in Structural Engineering from the Catholic University of Peru (2004), and a Ph.D. in Geotechnical Engineering from the University of British Columbia (2013).

CONTENT:

Peru is situated in one of the most seismically active regions in the world. However, parameters for the seismic design of structures in the country are scarce. The presentation will discuss site-specific 0.2-second and 1.0 second spectral accelerations (S_a), earthquake magnitude (M), source- to-site distance (D) and epsilon (ϵ) parameters suitable for seismic design. The parameters are quantified for a return period of 475 years for cities located along the coast and the Peruvian Andes. Comparisons between the site-specific seismic design spectra with those specified in the 2003 Peruvian Seismic Code will be highlighted and implications to seismic design in those cities will be presented. Fundamentals of probabilistic seismic hazard analysis, challenges faced by the practice in subduction environments and a comparison with the seismotectonic setting in BC will be commented.

DETAILS

Executive Inn, 4201 Lougheed Highway, Burnaby, BC V5C 3Y6 (Phone: 604-298-2010)

Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar)

Technical Presentation: 6:30 to 7:30 pm

Dinner: 7:45 pm (\$30 will be charged for dinner)

RSVP: Dinner reservation to ali.amini@shaw.ca or at the door with Robyn Barnett