

Virginia Tech
Center for Geotechnical Practice and Research
Annual Lecture Program

Thursday, March 1, 2007

Alumni Assembly Hall

Inn at Virginia Tech and Skelton Conference Center
Blacksburg, Virginia

8:15-9:00 **Jeff Schaefer, PhD, P.E., P.G.** *Geotechnical Regional Specialist USACE, Louisville*
“USACE Dam Safety Portfolio Risk Assessment Program”

The presentation will cover the general methodology and results from the initial Screening Portfolio Risk Assessment including examples of the major dam safety issues found during this process. The development of a more rigorous process for PRA will be discussed along with expected changes to the USACE Dam Safety Program

9:15-10:00 **Allen L. Sehn, PhD, P.E.** *Chief Engineer Hayward Baker, Inc.*
“Design and Application of Dry Soil Mixing”

A brief review of the development of dry soil mixing will be presented, followed by a discussion of the engineering aspects of dry soil mixing, material properties, typical applications, and QA/QC procedures. Project case histories will be used to illustrate typical applications.

10:15-11:00 **Pat Lucia, PhD, P.E.** *Chairman of the Board GeoSyntec Consultants*
“Case Histories of Failures in Geotechnical Engineering”

Two case histories will be presented. In the first case a micro tunneling project in soft sediments will be discussed from the contractor’s point of view, and reasons for the inability to complete the project as planned will be presented. In the second case, a slope failure adjacent to the leachate treatment plant at an operating landfill will be presented.

Keynote Speaker

11:15-12:15 **Professor Ross W. Boulanger, PhD, P.E.** *Professor of Civil & Environmental Engineering University of California, Davis*
“Seismic Design of Pile Foundations for Liquefaction Effects”

Procedures for the seismic design of pile foundations for liquefaction effects are presented with emphasis on the conditions relevant to bridges. The recommended design procedures use equivalent static beam-on-nonlinear-Winkler-foundation models, with guidance derived from dynamic centrifuge model tests and nonlinear dynamic finite element studies. The design procedures, their basis, and other issues for design of bridges for liquefaction effects are discussed.



All are welcome to attend