View from Practice: Adequacy of Current Design Models

- How are site effects addressed in engineering practice?
- When are generic versus site-specific soil properties used?
- What models are currently being used?
- What are the limitations of current models?

Adaptations Needed for Use in Performance-Based Framework

- What are the known site response biases arising from material models?
- Is uncertainty in the models adequately addressed?
- Can uncertainty be reduced through more lab testing? through a new model form?
- How can uniform hazard probabilities be maintained in site response analysis?

Understanding and Addressing Soil Disturbance Issues

- What evidence is available that indicates soil disturbance is an issue?
- How are soil disturbance issues currently being addressed in practice?
- What is the impact of soil disturbance on materials models and site response analysis?
- What tests could be performed to address the soil disturbance issues?

Issues for "Special Soils" such as gravels, silt, peat, and improved ground

- Are adequate models available for these special soils?
- What are the needs in practice for these special soils?
- Are conventional or specialized equipment needed to study these special soils?

## Afternoon breakout sessions

Desired Model Form(s) for New Models

- What parameters are essential for models to meet the needs of practice?
- What parameters are needed to address emerging needs of advanced models?
- Can self-consistent basic and advanced models be developed?
- What statistical tools and considerations should be addressed?

Issues for Merging Existing Worldwide Data Sets

- What worldwide data sets are available for model development?
- o Are different testing techniques and methods used in other countries?
- o What are the differences between the US and international data sets?

Testing Needs for Applied and Advanced Models

- What testing data are needed to constrain parameters for advanced models?
- What additional data are needed to define uncertainty in soil models?
- What are the remaining gaps that exist in current models?

Incorporating Nonlinear Soil Data into NEES

- How can nonlinear soil data be best integrated with NEES?
- What metadata are needed to archive soil testing data in the NEES data repository?
- How can nonlinear soil data and models be used in NEES numerical simulation?
- o What NEES experiments would best assist in soil model development?