International Workshop on Uncertainties in Nonlinear Soil Properties and their Impact on Modeling Dynamic Soil Response

Richmond Field Station, Richmond, CA

18-19 March 2004

Final Workshop Program

Thursday, 18 March 2004

7:40 am	**Bus leaves hotel for Richmond Field Station**	
8:00 – 8:45	**Workshop Registration & Continental Breakfast**	
8:45 – 9:00	**Introduction and Welcome**	
9:00-11:45	**Plenary Session 1: Status and Needs of Earthquake Site Response Modeling**	
9:00-9:30	I.M. Idriss	Evolution of the State of Practice
9:30-9:50	J. Stewart	A Comparison of Site-Specific and Empirical Methods for Site Response Evaluation
9:50-10:10	W. Silva	Importance of Site Effects and Soil Models Relative to Source and Path Effects
10:10-10:30	**Break**	
10:30-10:50	S. Kramer	Geotechnical Site-Response Models Used in Practice
10:50-11:10	J. Pestana	Emerging Trends in Site-Response and SSI Modeling
11:10-11:45	Panel Discussion	
11:45-1:00	**Lunch**	
1:00-4:15	**Plenary Session 2: Status of Soil Testing and Material Models**	
1:00-1:20	B. Pyke	Evolution of Material Models Since 1970's
1:20-1:40	K. Stokoe	New Soil Model Incorporating Uncertainty
1:40-2:00	M. Vucetic	Emerging Trends in DSDSS Testing
2:00-2:20	M. Riemer	Emerging Trends in Cyclic Triaxial Testing
2:20-2:45	**Break**	
2:45-3:15	A. Ansal	European Experience in Material Models for Site Response
3:15-3:45	T. Kokusho	Japanese Experience in Material Models for Site Response
3:45-4:30	Panel Discussion	
4:30-5:00	**Plenary – Summary and Preparations for Day 2 Break Out Sessions**	
6:00-7:00	**Reception and No-Host Bar**	
7:00-9:00	**Banquet (Doubletree Hotel)**	

International Workshop on Uncertainties in Nonlinear Soil Properties and their Impact on Modeling Dynamic Soil Response

Richmond Field Station, Richmond, CA

18-19 March 2004

Friday, 19 March 2004

7:10 am	**Bus leaves hotel for Richmond Field Station**
7:30 – 8:00	**Continental Breakfast**
8:00 – 9:30	**Concurrent Breakout Session 1: Unresolved Issues**
BO#1	Site Response Analysis – User's View
BO#2	Site Response Analysis – Developer's View
BO#3	Constitutive Material Models
BO#4	Soil Material Testing
9:30 - 10:00	**Break**
10:00 - 11:15	**Plenary – Break Out Session Reports & General Feedback**
11:15 – 12:15	**Concurrent Breakout Sessions (continued) – Finalize Recommendations**
12:15 – 1:30	**Lunch**
1:30 – 3:00	**Concurrent Breakout Session 2:**
BO#5	Cross-Cutting Group 1
BO#6	Cross-Cutting Group 2
BO#7	Cross-Cutting Group 3
BO#8	Cross-Cutting Group 4
3:00 - 3:30	**Break**
3:30 - 4:30	**Plenary – Break Out Session Reports & General Feedback**
4:30 – 5:00	**Concurrent Breakout Sessions (continued) - Finalize Recommendations**
5:00 – 5:30	**Plenary – Recap Final Workshop Recommendations and Future Directions**

International Workshop on Uncertainties in Nonlinear Soil Properties and their Impact on Modeling Dynamic Soil Response

Richmond Field Station, Richmond, CA

18-19 March 2004

Break-Out Session Information

BO#1 through 4 – Unresolved Issues

Each morning breakout group should discuss current uncertainties and needs from ***within*** their area of ***specialty***, as well as the research priorities for both the near-term (3-yr) and the long-term (10-yr). This information will be presented and discussed in plenary session.

BO#5 through 8 – Cross-Cutting Groups

Participants will be assigned to one of four cross-cutting groups that include people representing each of the specialty groups from the morning break out sessions. Each break out group will be asked to discuss and present their views on the following:

- What are the top 5 research priorities required to achieve more reliable site response predictions?
- How should testing difficulties (e.g., disturbance, equipment limitations, stress paths, anisotropy, etc.) be addressed?
- How should spatial variability of soils (e.g., vertical and horizontal variations in layering, material uncertainties within a strata) be handled?
- How should site response and material models be validated/calibrated (e.g., arrays, blasts, centrifuge, seismological studies, etc.)?
- What are the limitations of current site-response analysis models (e.g., equivalent-linear vs. nonlinear, 1-D vs. 2-D)? How significant are these limitations relative to the uncertainty in the input motion (e.g., where the motion is input into the soil column, how many motions to use, how to scale motions)?