FINAL WORKSHOP PROGRAMME (1/6)

Tuesday, 5 October 2010

19:00 Registration and Welcome Cocktail

Wednesday, 6 October 2010

08:30 – 09:15 Opening Session
Chairs: Alejandro Huerta (OECD/NEA)
Andrei Blahoianu (CNSC, Canada)

Welcome Address
Dr. Michael Binder, President and Chief Executive Officer (CSNC)

NEA Seismic Activities & Objectives of the Workshop
A. Huerta (OECD/NEA)

IAEA/ISSC Overview and Developments
O. Coman, A. Alltyniolar, and A. Godoy (IAEA)

09:15 – 12:00 Morning Session – Introduction Papers
Day 1 Chairs: G. Atkinson - Keynote speaker, J. Johnson – Keynote speaker, T. Nishikawa – Keynote speaker, Andrew Murphy, Nebojsa Orbovic

Seismological Considerations for the Analysis of Soil Structure Interaction
G. Atkinson (University of Western Ontario)

Seismic Soil-Structure Interaction Analysis: A Walk Through Time - Past, Present and Future
J. J. Johnson (James J. Johnson and Associates)

10-15 - 10:45 *Coffee Break*

US Regulatory Lessons Learned from New NPP Applications on Implementation of SSI Evaluation
B. Tegeler, S. Chakrabarti and M. Chakravorty (USNRC)

SSI Effects of Kashiwasaki-Kariwa NPP at NCO (Niigataken Chuetu-Oki) Earthquake in 2007
T. Nishikawa (Tokyo Metropolitan University), S. Motohashi, and H. Inoue (JNES)

The Simulation of the KK7 Reactor Building Structural response for NC0 2007 Event Using Different Modelling and Analysis Techniques
P. Varpasuo (Fortum Nuclear Services Ltd)

12:00 - 13:00 *Lunch Break*

FINAL WORKSHOP PROGRAMME (2/6)

13:00 – 17:00 Afternoon Session – Methodologies and Frameworks

Overview of Evidence on Model Uncertainty in Soil-Structure Interaction Studies
J. Riera (Universidade Federal de Rio Grande do Sul)

Framework for Design of Base-Isolated Next Generation Nuclear Facility Structures
M. Mieler, B. Stojadinovic (UC Berkeley), and R. Budnitz (Lawrence Berkeley National Laboratory)

Bi-normalized Response Spectrum for a Rational Soil-Structure Interaction Analysis
G. Gazetas (National Technical University of Athens)

14:15 – 14:45 *Coffee Break*

Soil-Structure Interaction Involving Nonlinear Soil Response
W.D. Liam Finn (University of British Columbia)

A Macro-Element for a Shallow Foundation to Simulate Soil-Structure Interaction
S. Grange, G. Nahas, J-M Rambach (IRSN)

Non-Linear Soil-Structure Interaction Analysis: A Comparison between 3D Finite Element Method and Macro-Element Modelling
F. Wang (CEA) and J-M Rambach (IRSN)

16:00 – 17:00 Day 1 Panel Discussion

17:00 – 18:00 Technical Programme Committee Meeting – End of Day 1

FINAL WORKSHOP PROGRAMME (3/6)

Thursday, 7 October 2010

08:30 – 12:00 Morning Session – Case Studies / Analysis in Frequency Domain
Day 2 Chairs: B. Jeremic – Keynote Speaker, Andrew Murphy, Nebojsa Orbovic

Deterministic and Probabilistic Seismic Soil Structure Interaction Analysis of the Mühleberg Nuclear Power Plant SUSAN Building
D. Nakaki, P. Hashimoto (Simpson Gumperts & Heger), J. Johnson (James Johnson & Associates), Y. Bayraktarli and O. Zuchuat (BKW FMB Energie AG)

Seismic Motion Incoherency Effects for Nuclear Islands on Soft Soil Site Conditions
D. Ghiocel (GP Technologies), S. Short and G. Hardy (Simpson. Gumpertz and Heger)

Seismic SSI Effects for APWR Reactor Building Complex
D. Ghiocel (GP Technologies), L. Todorovski (URS Washington Division) and H. Fuyama (Mitsubishi Heavy Industries)

Effects of Surface Geometry in SSI-Analysis
A. Asfura

10:10 – 10:45 *Coffee Break*

Soil Structure Interaction (SSI) Analysis of the Kashiwazaki-Kariwa Unit 7 Reactor Building under the NCOE Excitation in the Context of the IAEA KARISMA Benchmark
J. Moore (Basler & Hofmann AG)

EPRI AP1000 Model Studies on Seismic Incoherent SII Effects for a Hypothetical Site Condition that Includes 40 ft Backfill Soil Over a Stiff Rock Formation
D. Ghiocel (GP Technology), D. Li, N. Browen, J. Zhang, and L. Tunon-Sanjur (Westinghouse)

Seismic Motion Incoherency Effects for CANDU 6 Reactor Building Structure
D. Ghiocel (GP Technology), S. Adhikari, G. Stoyanov, and T. Aziz (AECL Ltd)

Recent Experiences with Soil-Structure Interaction Analyses for Nuclear Facilities
T. Aziz, R. Chen, W. Liu, S. Adhikari, G. Stoyanov, Q. Huang (AECL)

12:00 - 13:00 *Lunch Break*

FINAL WORKSHOP PROGRAMME (4/6)

13:00 – 17:00 Afternoon Session – Case Studies / Analysis in Time Domain

On Seismic Soil Structure Interaction Simulations for Nuclear Power Plants
B. Jeremic (University of California)

Recent Advances in Non-linear Soil-Structure Interaction Analysis using LS-DYNA
M. Willford, R. Sturt, Y. Huang, I. Almufti, and X. Duan (Arup)

Transient Finite-Element Soil-Structure Interaction Analysis of Nuclear Power Plants
U. Basu (Livermore Software Technology), and A. Chopra (UC Berkely)

14:15 – 14:45 *Coffee Break*

Soil Structure Interaction Studies of a Safety Related Nuclear Facility
G. Padmanabhan, C. Sundaramurthy, and C. Sivathanupillai (IGCAR)

Development of an Evaluation Response Spectrum for the Seismic Risk Assessment of a Nuclear Waste Repository in Korea
M. K. Kim and I.-K. Choi (KAERI)

Recent Advances in Seismic Soil-Structure Interaction Analysis of Nuclear Power Plants
M. Tabatabaie (SC Solutions, Inc)

16:00 – 17:00 Day 2 Panel Discussion

17:00 – 18:00 Technical Programme Committee Meeting – End of Day 2

20:00 ***Workshop Official Dinner***

FINAL WORKSHOP PROGRAMME (5/6)

Friday, 8 October 2010

8:30 – 12:00 Morning Session – Case Studies / Analysis in Time Domain and Some Special Topics

Day 3 Chairs: Alain Pecker- Keynote speaker, Andrew Murphy, Nebojsa Orbovic

Non-Linear Soil Structure Interaction: Impact on the Seismic Response of Structures
A. Pecker (Géodynamique et Structure)

Soil-Structure Interaction and Wave Passage Effects in Nonlinear Soil
M.D. Trifunac (University Southern California)

Non-Linear SSI Calculations: Methods to Determine Raft Uplift
P. Billion, F. Allain, G. Devesa, N. Humbert and I. Pietre-Lazar (EDF)

Impedance Calculations for Foundations on Soil Reinforced With Concrete Inclusions
D. Vandeputte, P. Billion, A. Courtois, P. Labbé (EDF)

10:10 – 10:45 *Coffee Break*

Influence of the Soil Non-Linearities on Dynamic Soil-Structure Interaction
A. Gandomzadeh (IRSN), J. F. Semblat, L. Lenti, M.P. Santisi d'Avila (Université Paris-Est) and F. Bonilla (IRSN)

Analysis of ACR Nuclear Island Seismic SSI: Challenges and Experiences
N. Allotey, R. Gonzalez, A. Saudy and M. Elgohary (AECL)

Kashiwasaki-Kariwa SSI Benchmark Phase 1 Results
A. Altinyollar, P. Sollogoub, O. Coman, and A. Godoy (IAEA)

12:00 - 13:00 *Lunch Break*

FINAL WORKSHOP PROGRAMME (6/6)

13:00 – 15:00 Closing Session

13:00 – 14:00 Day 3 Panel Discussion

14:00 – 15:00 Workshop Conclusions and Recommendations

15:00 – 16:00 Technical Programme Committee Meeting - *End of Workshop*