

# Winter 2011, Washington, DC

## Technical Sessions

Listed below are the sessions and papers that were presented at the meeting.

### Data Analysis in Nuclear Criticality Safety-I,

A Digital Criticality Safety Document Collection Available Through the U.S. Department of Energy's NCSP Web Site, Brian L. Koponen (LLNL, retired), David P. Heinrichs, Chuck K. Lee (LLNL)

[Study on Particle and Absorber Effects on Multiplication Factors of Debris Beds with MVP](#), Tsugio Yokoyama (Toshiba Nuclear Engineering Services Corp), Taiki Fujishiro, Hisashi Ninokata (Tokyo Inst Technol)

Supercritical Transient Analysis in Weakly Coupling Systems, Haruka Kikuchi, Toru Obara (Tokyo Inst Technol)

[Acceleration of Monte Carlo Criticality Calculations Using Deterministic-Based Starting Sources](#), Ahmad M. Ibrahim (Univ of Wisconsin, Madison), Douglas E. Peplow, John C. Wagner, Scott W. Mosher, Thomas M. Evans (ORNL)

First Critical Experiment at Critical Experiment Facility, Rene Sanchez, David Hayes, Joetta Goda, William Myers (LANL)

Verification of Burnable Absorber Rod Worth Evaluation for Criticality Safety Analysis of a RAJ-II BWR Shipping Package, Tanya Sloma (Westinghouse), Peter Vescovi (Transport Logistics International)

[CritView: An Electronic Handbook for Criticality Safety](#), Scott H. Finfrock (Fluor Federal Services), Mark B. Murphy (CH2M HILL Plateau Remediation Company)

[The Analysis of the Radial Thermal Expansion of Clear Polyvinyl Chloride and Polyvinylidene Fluoride \(Kynar\) Columns](#), Katherine A. Nagley (Central Virginia Governor's School), Larry L. Wetzel (Babcock & Wilcox-NOG)

The Language of the Process Analysis Requirement and the Double Contingency Principle, Shean P. Monahan (LANL), Thomas P. McLaughlin (Consultant), Adolf Garcia (DOE Idaho Operations Office), Calvin Hopper, G. Elliott Whitesides (Retired)

### Recent Advances in Criticality Safety Activities at the Y-12 National Security Complex-I

[Nuclear Criticality Safety Strategic Vision for Y-12 Enriched Uranium Operations](#), R. Scott Underwood, Jr. (B&W Y-12)

[Improvements to the Interface Between Facility Safety and Criticality Safety at Y-12 NSC](#), Chris Haught (*B&W Y-12*)

[The Evaluation of Infinite Thickness Reflectors for Neutron Generator Active Interrogation Measurements](#), Dennis A. Tollefson (*Navarro Research and Engineering, Inc.*), Scott L. Creasey, Ralph V. DeMeglio (*B&W Y-12 Technical Services L.L.C.*), John T. Mihalczko (*ORNL, UT-Battelle, LLC*)

[Integration of Criticality Safety into the Uranium Processing Facility Design](#), Barbara Krogfuss (*B&W Y-12*)

[Design Alternatives for Nuclear Criticality Safety Instrumented Systems](#), Julia W. Insalaco, Barbara I. Krogfuss, Danny A. Walker (*B&W Y-12*)

[Method of Determining Subcritical H/D Ratios for Cylindrical Systems](#), Daniel F. Hollenbach, Richard G. Taylor, Cindy J. Shields (*Y-12*)

[Transformation of the Y-12 Nuclear Criticality Safety Committee](#), Douglas W. Croucher (*The Croucher Group, Inc.*), John Gertsen (*B&W Y-12*)

### **Recent Advances in Criticality Safety Activities at the Y-12 National Security Complex-II,**

[Productivity Techniques and Quality Aspects in the Criticality Safety Evaluation of Y-12 Type-B Fissile Material Packages](#), John F. DeClue (*B&W Technical Services*)

[Small-Angle Compton Scattering to Determine the Attenuation of Gamma Rays from HEU](#), Rick B. Oberer, Cynthia A. Gunn, Lisa G. Chiang, Michael C. Mattmann (*Y-12 NSC*)

[Improvements in Preventing Uranium Accumulations in Large Volume Machine Coolant Tanks](#), Bev A. Lomax, Jerry J. Lichtenwalter (*Y-12 NSC*)

[Innovations in CAAS and Emergency Planning/Response at Y-12 NSC](#), Peter L. Angelo (*Y-12 NSC*)

### **Data Analysis in Nuclear Criticality Safety-II**

[US MOX IROFS Risk Ranking for Enhanced Criticality Safety](#), Michael J. Shea, Leslie E. Duncan, Robert G. Eble, Jeffrey R. Brault (*Shaw AREVA MOX Services*)

Thermal Total Cross Section Measurement for  $^{63}\text{Cu}$  and  $^{65}\text{Cu}$  at the MIT Reactor, Vladimir Sobes, Ruaridh Macdonald (*MIT*), Luiz Leal (*ORNL*), Benoit Forget (*MIT*), Klaus Guber (*ORNL*), Gordon Kohse (*MIT*)

MCNP6 Shielding Validation Suite: Past, Present, and Future, Brian C. Kiedrowski, Forrest B. Brown (*LANL*), Nathan A. Gibson (*MIT*), Alexander S. Bennett, Matthew A. Gonzales (*Univ of New Mexico*)

Criticality Safety Student Training Program at DOE-ID, Adolf Garcia (*DOE, Idaho Falls*), Mackenzie Gorham (*Idaho State Univ*), Joseph A. Christensen (*DOE*)

## **Recent Nuclear Criticality Safety Program Technical Accomplishments**

US DOE NCSP Training and Education Program Plan, Calvin M. Hopper (*ORNL*)

Planning for CEF Experiments for Stockpile Stewardship and Global Security, Robert C. Little, Todd A. Bredeweg, Peter J. Jaegers, Albert C. Kahler III, William L. Myers, Morgan C. White, Charles W. Wilkerson Jr. (*LANL*)

[MCNP Developments](#), Forrest B. Brown, Brian C. Kiedrowski (*LANL*)

Current CEF/DAF Operational Update and Schedule, William L. Myers, Steven D. Clement (*LANL*)

[SILENE Benchmark Critical Experiments for Criticality Accident Alarm Systems](#), Thomas M. Miller (*ORNL*), Kevin H. Reynolds (*BWXT Y-12, LLC*)

Nuclear Accident Dosimetry Exercises at CEA-Valduc, Andrew R. Wysong, David P. Hickman (*LLNL*)