



NUCLEAR SAFETY WORKSHOP AGENDA

Preliminary Lessons Learned From Fukushima Daiichi

June 6-7, 2011 - Crystal City Marriott



SUNDAY, JUNE 5 - Potomac Ballroom

6:00 – 8:00 pm **Registration**

MONDAY, JUNE 6 - Potomac Ballroom

7:00 – 8:30 am **Registration**

8:30 – 8:35 am

Logistics

Stephen A. Kirchhoff, Office of Health, Safety and Security
US Department of Energy

8:35 – 8:45 am

Welcoming Remarks and Workshop Objectives

Glenn S. Podonsky, Chief Health, Safety and Security Officer
US Department of Energy

8:45 – 9:15 am

DOE Perspective on Nuclear Safety

Daniel B. Poneman, Deputy Secretary
US Department of Energy

9:15 – 9:30 am

Transforming the DOE Approach to Safety and Security

Melvin G. Williams, Jr., Vice Admiral, US Navy (retired), Associate Deputy Secretary
US Department of Energy

9:30 – 9:45 am

Break

9:45 – 11:15 am

Panel Discussion: Nuclear Safety Culture and Management Reaction/Response to Fukushima Daiichi Nuclear Power Station

Moderator: James J. McConnell, Assistant Deputy Administrator for Nuclear Safety, Nuclear Operations, and Governance Reform
National Nuclear Security Administration

- Inés R. Triay, Ph.D., DOE Assistant Secretary for Environmental Management
- Peter B. Lyons, Ph.D., DOE Assistant Secretary for Nuclear Energy
- Neile L. Miller, NNSA Principal Deputy Administrator
- Steven C. Erhart, NNSA Pantex Site Office Manager
- Frank McCoy, Senior Vice President, Nuclear Safety, URS Safety Management Systems
- Pamela A. Horning, Vice-President of Babcock & Wilcox – Technical Services Group and EFCOG Executive Sponsor for the Safety Analysis Working Group

11:15 am – Noon

Safety Insights from the Fukushima Daiichi Accident Applicable to DOE Nuclear Facilities (via video)

Dr. Robert J. Budnitz
Lawrence Berkeley National Laboratory



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MONDAY, JUNE 6 (continued)

- Noon – 1:30 pm **Lunch**
- 1:30 – 2:00 pm **High Risk Operations and Natural Phenomena**
John E. Mansfield, Ph. D., Member
Defense Nuclear Facilities Safety Board
- 2:00 – 2:45 pm **Natural Phenomena Implications for DOE Nuclear Facilities**
Dr. Kevin J. Coppersmith
Coppersmith Consulting, Inc.
- 2:45 – 3:00 pm **Break**
- 3:00 – 3:30 pm **Preliminary Lessons Learned for US Commercial Nuclear Reactors and Spent Fuel Pools**
Richard T. Purcell, Senior Vice President for Industry Performance Improvement
Institute of Nuclear Power Operations
- 3:30 – 4:00 pm **NNSA Office of Emergency Operations Response to the Nuclear Accident at Fukushima Daiichi**
Joseph J. Krol, Jr., Rear Admiral, US Navy (Retired), Associate Administrator for the Office of
Emergency Operations
National Nuclear Security Administration
- 4:00 – 4:45 pm **NRC Perspective on Nuclear Safety**
Honorable William C. Ostendorff, Commissioner
Nuclear Regulatory Commission
- 4:45 – 4:50 pm **Closing Remarks**
Dr. James O'Brien, Acting Director for the Office of Nuclear Safety
Office of Health, Safety and Security
US Department of Energy



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TUESDAY, JUNE 7

9:00 – 11:30 am

Concurrent Breakout Sessions

<p><u>DOE Evaluation of/Design For Beyond Design Basis Events</u></p> <p><i>Potomac Ballroom</i></p>	<p><u>Natural Phenomena Hazards</u></p> <p><i>Crystal View</i></p>	<p><u>Emergency Management</u></p> <p><i>Mount Vernon</i></p>
<p>Sponsors/Facilitators: Don F. Nichols, NNSA Chief of Defense Nuclear Safety Carol L. Sohn, DOE Office of Science Senior Nuclear Safety Advisor</p> <p>Vulnerabilities</p> <p>Beyond Design Basis Events</p> <ul style="list-style-type: none"> • Analysis • Prevention/ Mitigation Controls <p>Long-Term Loss of Power and Backup Capabilities</p> <p>Spent Fuel Cooling and Management</p> <p>Hydrogen Control</p>	<p>Sponsors/Facilitators: Richard H. Lagdon, Jr., DOE Chief of Nuclear Safety Stephen M. McDuffie, DOE Office of the Chief of Nuclear Safety Dr. Kevin J. Coppersmith</p> <p>Vulnerabilities</p> <p>DOE Natural Phenomena Hazard Topics:</p> <ul style="list-style-type: none"> • DOE-STD-1020 Update • Results of Safety Bulletin 2011-01 Site Reviews • 10-Year Update Criteria • Status of Site 10-Year Updates • Central and Eastern United States Seismic Source Characterization (CEUS-SSC) Project Status and Its Role in 10-Year Probabilistic Seismic Hazard Analysis (PSHA) Updates – Larry Salomone, Savannah River Nuclear Solutions, LLC • NRC Seismic Methodology (tentative) • SASSI Code Concerns <p>Preliminary Lessons from Fukushima and Beyond Design Basis Events</p> <ul style="list-style-type: none"> • Establishing Seismic Design Criteria <ul style="list-style-type: none"> – Use of Risk-Informed Approaches – Transparency and Robustness – Probabilistic Approaches Following Past Deterministic Approaches • Hazard Characterization Processes <ul style="list-style-type: none"> – Systematic Examination of 	<p>Sponsors/Facilitators: Carl S. Pavetto, NNSA Deputy Associate Administrator for the Office of Emergency Operations James E. Fairobent, NNSA Director of the Office of Emergency Management Bill Froh, NNSA Office of Emergency Management Marie Dunkle</p> <p>Vulnerabilities</p> <p>Review and Discussion of Current Technical Basis Guidance for Emergency Plans and Programs</p> <ul style="list-style-type: none"> • Last Line of Defense, DOE Guide 151.1-1A • Spectrum of Events and Conditions, DOE Guide 151.1-2 • Consideration of Natural Phenomena, DOE Guide 151.1-2 • Addressing Low-Probability, High-Consequence Events, DOE Guide 151.1-2 • Inclusion of Beyond Design Basis Events in Technical Basis <p>Potential Vulnerabilities</p> <ul style="list-style-type: none"> • Emergency Plans and Procedures • Facilities and Equipment • Exercises • NRC Perspectives on Potential Vulnerabilities – Mark Thaggard, NRC Deputy Director for Emergency Preparedness, Office of Nuclear Security and Incident Response <p>Planning for Events with Loss of Site/Community Infrastructure</p>



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	<ul style="list-style-type: none"> - Entire Historical Record - Extending the Observed Record to Include Geologic Evidence - Tools for Expressing and Quantifying Uncertainties • Defining the Magnitude of Beyond Design Basis Phenomena <ul style="list-style-type: none"> - Characterizing Hazards with Annual Frequency of Exceedance 10E-7 or Below - Stability of Assessments in the Face of Increasing Uncertainties - Case Histories • Hazard Inter-Dependencies (e.g., earthquake-tsunami, earthquake-flood) 	<ul style="list-style-type: none"> • LLNL's On-Site Response During an Earthquake When Off-site Response Resources are Unavailable for an Extended Period – John Sharry, LLNL • FEMA Whole Community Initiative – Jim Kish and Steve Saunders, FEMA <p>Other Perspectives</p> <ul style="list-style-type: none"> • EPA Insights on Emergency Response Related Activities for a DOE Incident – Edward Tupin, EPA • INPO Emergency Response Initiative

11:30 am – 1:00 pm **Lunch**

1:00 – 3:00 pm **Concurrent Breakout Sessions**

<u>DOE Evaluation of/Design For Beyond Design Basis Events</u> <i>Potomac Ballroom</i>	<u>Natural Phenomena Hazards</u> <i>Crystal View</i>	<u>Emergency Management</u> <i>Mount Vernon</i>
<p>Additional Actions Needed</p> <p>Path Forward</p>	<p>Additional Actions Needed</p> <p>Path Forward</p>	<p>Additional Actions Needed</p> <ul style="list-style-type: none"> • Changes in the Requirements in DOE Order 151.1C • Additional Guidance <ul style="list-style-type: none"> - Inclusion of Beyond Design Basis Events in the Technical Basis - Emergency Plans and Procedures - Facilities and Equipment - Exercises <p>Path Forward</p> <ul style="list-style-type: none"> • Drafting Changes to Directives • Timeline • Other Actions



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TUESDAY, JUNE 7 (continued)

3:00 – 3:30 pm

Break

3:30 – 4:55 pm

Plenary Session – Breakout Session Summaries of Vulnerabilities, Additional Actions Needed, and Path Forward

Potomac Ballroom

Moderator: Dr. James O'Brien

DOE Evaluation of/Design for Beyond Design Basis Events

Don F. Nichols

Carol L. Sohn

Natural Phenomena Hazards

Richard H. Lagdon, Jr.

Stephen M. McDuffie

Emergency Management

Carl S. Pavetto

James E. Fairbent

4:55 – 5:00 pm

Closing Remarks

Stephen A. Kirchhoff

Additional Information and Questions

Mark Blackburn

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Teri Lachman

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Hotel Information

Crystal City Marriott at Reagan National Airport

1999 Jefferson Davis Highway

Arlington, Virginia 22202

(703) 413-5500

Hotel Directions

0.1 miles from the Crystal City Metro station (upon exiting the metro, turn left and follow the signs for the Crystal City Marriott, take the hotel elevators to the Mezzanine level)