

DETECTION PROGRAM

Monday, March 5, 2012

1:00 Welcome
Ronald K. Mengel Award

1:15 Keynote Address
Unwanted Fire Alarms
Marty Ahrens – National Fire Protection Association

2:00 Session I : Home Fire Alarms

2:00 **Discriminant Analysis for Home Fire Alarms**
Bruce Warmack, Dennis Wolf, Marc Wise – Oak Ridge National Laboratory

2:30 **Smoke Alarm Performance in Kitchen Fires and Nuisance Scenarios**
Thomas Cleary - National Institute of Standards and Technology

3:00 – Break

3:30 Session I : Home Fire Alarms (cont.)

3:30 **Smoke Alarm Response and Tenability**
Thomas Fabian - Underwriters Laboratories Inc.

4:00 **Do Smoke Alarms with Internal Plastic Components Pose a Fire Hazard if They Ignite?**
Arthur Lee - U.S. Consumer Product Safety Commission

4:30 **Multi-Criteria Fire Alarm**
Jacob Wong – Airware Inc.

5:00 – 6:30 Reception

Tuesday, March 6, 2012

8:30 Session II: Applications

- 8:30 **Fire Detection in Warehouse Facilities**
Daniel Gottuk, Joshua Dinaburg – Hughes Associates, Inc.
- 9:00 **Modeling the Performance of Fire Protection Systems in Modern Data Centers**
Richard Bukowski, Ralph Transue – Rolf Jensen and Associates
- 9:30 **Using CFD to Analyze Gas Detector Placement in Process Facilities**
Scott Davis, Olav Hansen, Filippo Gavelli, Are Bratteteig – GexCon US

10:00 – Break

10:30 Session II: Applications (cont.)

- 10:30 **Early, Accurate Safety Threat Detection Integrated for Transit Risk Management & Emergency Response**
Ming He - Xtralis AG
- 11:00 **Air Sampling Smoke Detection On Mobile Mining Equipment**
Peter J. Wynnyczuk - Heritage Industrial Services, LLC

11:30 – 1:00 Lunch on own

1:00 Session III: Notification

- 1:00 **Directional Sound Effectiveness Study**
Scott Lang, Mike Dybas – System Sensor
- 1:30 **Characteristics of Light-Emitting Diode Sources: Relevance for Visual Signal Detection**
John Bullough - RPI Lighting Research Center

2:00 Session IV: Mass Notification for Vulnerable Populations

- 2:00 **Latinos a Salvo Means a Safer Community for All: The Imperative for Inclusive and Multi-language Emergency Communication Policies**
Federico Subervi - Texas State University - San Marcos
- 2:30 **Warning the Elderly: Understanding and Overcoming Barriers to Risk Communication**
Christopher Mayhorn - North Carolina State University

3:00 – Break

Tuesday, March 6, 2012 (continued)

3:30 Session IV: Mass Notification for Vulnerable Populations (cont.)

3:30 How Mass Notification is Used by Emergency Management to Reach Diverse Populations

Elizabeth Davis - EAD and Associates, LLC

4:00 Getting the Message to People Who are Blind and Vision Impaired During Emergencies

Sharon Toji - Toji and Company

4:30 Closing Comments, Feedback

Wednesday, March 7, 2012

8:30 – 11:30 a.m. - Special Workshop

Emergency Communications

(open to all symposium attendees)

SUPPRESSION PROGRAM

1:00 Welcome

William M. Carey Award

1:15 Session I: Clean Agents

1:15 Performance Based Guidance in Specifying Clean Extinguishing Agent Protection Against Energy Augmented Data Center Fire Conditions

Romil Patel – University of Maryland

Paul Rivers – 3M Company

1:45 A Thermal View on the Synergistic Effect of Fire Suppressants

T. Ma, Q. Wang , M. D. Larrañaga – Oklahoma State University

2:15 Inert Gas Extinguishing System Two Minute Discharge Study

Gene Hill, Brad Stilwell – Fike Corporation

2:45 Analysis of Suppressant-Enhanced Overpressure in the FAA Aerosol Can Simulator

Greg Linteris – National Institute of Standards and Technology

3:15 Break

3:45 Session II: Environmental Issues

3:45 Next Generation Fluorine-Free Firefighting Foams

Nicolas Robinet, Rajesh Melkote – UTC Fire & Security

4:15 Is There a Future for AFFF without Fluorine?

Ralf Hetzer - Bundeswehr Research Institute for Protective Technologies and NBC Protection

5:00 – 6:30 Reception

Thursday, March 8, 2012

8:00 Session III: Sprinkler Protection

8:00 Droplet Characterization Using Direct Imaging Techniques

Melissa Avila, Zachary Magnone – Tyco Fire Protection Products

Hao Bohan, Chu Yueshan – Shanghai Jiao Tong University

Nicholas Fast, Rachel Winsten, Nicholas Dembsey – Worcester Polytechnic Institute

8:30 Simulation of Sprinkler Activation with CFD Tools

Luca Iannantuoni, Daniele Ettore – Dipartimento di Energia, Politecnico di Milano

Andrea Ferrari – Hughes Associates Europe

9:00 Analysis of Sprinkler Design Criteria for High Air Movement Areas

William Koffel - Koffel Associates Inc.

9:30 Session IV: Water Mist

9:30 Suppression Effectiveness of Water Sprays on Accelerated Wood-Crib Fires

Paolo Santangelo, Bryson Jacobs, Ning Ren, André Marshall – University of Maryland

Joshua Sheffel, May Corn – United Technologies Research Center

10:00 Fire Suppression Tests Using a Handheld Water Mist Extinguisher Designed for Spacecraft Application

Thierry Carriere, Jim Butz, Sayangdev Naha – ADA Technologies

Angel Abbud-Madrid – Colorado School of Mines

10:30 – Break

Thursday, March 8, 2012 (continued)

11:00 Session V: Manual Fire Fighting

11:00 Model Development for Predicting Fire Hose Stream Characteristics

Y. Zheng, A.W. Marshall – University of Maryland
N. Ryder – Delta Q Fire & Explosion Consultants, Inc.

11:30 Fire Suppression Performance of Manually Applied CAF and Other Water Based Systems

Andrew Kim, George Crampton – National Research Council of Canada

12:00 Hyper-Stress Induced Diminishment of Cognitive Abilities: A Review of Observed Tendencies and Recommendations for More Effective Management [for Emergency Responders]

Robert Chandler - University of Central Florida

12:30 – 2:00 Lunch on own

2:00 Session VI: High Hazard Commodity Protection

2:00 Lithium Ion Battery Hazard Assessment

Celina Mikolajczak - Exponent

2:30 Sprinkler Protection Criteria for Consumer Fireworks Storage in Retail Facilities

Garner Palenske - Aon Fire Protection Engineering

3:00 Protection of Exposed Expanded Plastics Stored in Racks

Steven Wolin - Code Consultants, Inc.

3:30 Assessment of Hazards of Flammable and Combustible Liquids in Composite IBCs in Operations Scenarios

Joseph Scheffey - Hughes Associates, Inc.

4:00 Plastic Aerosols: A Unique Path to the Market

John LeBlanc - FM Global

4:30 Packaging Influence on Sprinkler Protection for High Challenge Commodities

Christopher Gates, Underwriters Laboratories Inc.
Christina Francis, Procter & Gamble Company

5:00 Fire Protection and Loss Mitigation of High Density Library and Archival Storage

Kristin Jamison, FM Global

5:30 Closing Comments, Feedback