

Register by May 6 and Save!

The Premier Event in
Fire & Life Safety



June 12-15, 2011
Boston, MA

Boston Convention &
Exhibition Center



Pre/Post-Conference Seminars: June 10-12, 16

Expo: June 12-15

Education Sessions: June 12-15

Association Technical Meeting: June 14-15

FEATURED PRESENTATION: page 11

SPOTLIGHT SESSIONS: page 23

SESSIONS BY TRACK: page 24

This schedule is subject to change. Note: Continuing Education Units (CEUs) will be awarded for all sessions except those marked with an asterisk (*). See page 18 for details.



nfpa.org/conference

Education Sessions

as of February 18, 2011

Sunday, June 12, 2011

CLC 8:00 AM – 12:30 PM

Committee Leadership Conference

TRACK(S): **CODES AND STANDARDS**

Maureen Brodoff and **Amy Cronin**, *NFPA*; **James Pauley**,
Square D Company/Schneider Electric

To create effective codes and standards that protect lives, NFPA relies on the democratic procedures of its codes and standards development process. The Committee Leadership Conference (CLC) will show NFPA technical committee officers how to carry out their duties and responsibilities. The CLC is open to anyone who wishes to attend, but committee members are required to attend one of these sessions. **Advance registration is requested. Please contact Codes and Standards Administration at 617-984-7248 or by email at stds_admin@nfpa.org.**

S01 7:30 AM – 11:00 AM

CFPS Exam*

Pre-exam activities begin at 7:30 am. The CFPS® Exam begins promptly at 8:00 am. Pre-registration is required. Your application form must be processed and approved by May 12. CFPS examination requirements and the application form are available in the *Applicant & Certificate Holder Handbook*: www.nfpa.org/assets/files/pdf/cfps handbook.pdf.

S02 8:00 AM – 10:00 AM

NFPA 13R — Application, Use and Limitations — Panel Discussion

TRACK(S): **FIRE SUPPRESSION**

Christian Dubay, *NFPA*

This panel discussion will review the scope and application of NFPA 13R and how recent fire incidents have begun to test the scope and application of the standard. Discussions will focus on how NFPA 13R sprinkler systems have performed in fires and what the expectations are of such systems. The panel discussion will review the views of the enforcement community, insurance industry, and property owners.

S03 8:00 AM – 9:00 AM

Proposed Changes to NFPA 720–2011

TRACK(S): **CODES AND STANDARDS**

Thomas Norton, *Norel Service Co., Inc.*;

Richard Roberts, *System Sensor*

NFPA 720: Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment—the Carbon Monoxide Code—has under gone significant changes in this new cycle, which will be of interest to many attendees.

SPONSORED BY THE LODGING INDUSTRY SECTION

S04 8:00 AM – 9:00 AM

Conflagration to Code: How Historic Building Fires Shaped Modern Codes

TRACK(S): **BUILDING & LIFE SAFETY**
CODES & STANDARDS

Thomas Gardner, *The Protection Engineering Group*;
April Musser, *The Protection Engineering Group*

This session offers an in-depth analysis of the causes and contributing factors in some of history's most notorious structure fires and outlines how the lessons learned eventually translated into modern code requirements. Hear about many well-known fires such as the Cocoanut Grove, Iroquois Theater, and Triangle Shirtwaist Factory, as well as the Winecoff Hotel, GM Transmission Plant, Hartford Circus Tent Fire, and others.

S05 8:00 AM – 9:00 AM

HVLS Fans and Sprinkler Operation: Results of a Three-Year Comprehensive Assessment of Performance

TRACK(S): **FIRE SUPPRESSION**
GREEN (1 GBCI CE hour)

Garner Palenske, *Aon Fire Protection Engineering*

The use of high-volume low-speed (HVLS) fans is becoming very popular because of the current emphasis on green building technology. The effect of HVLS fans on sprinkler performance, however, was unknown. Primary concerns were sprinkler obstruction and interference with operation due to fan-induced air movement. To address this issue, the FPRF recently completed a series of 10 full-scale fire tests using the testing facilities of both UL and FM Global. The goal was to determine appropriate spacing and other installation requirements for HVLS fans in the presence of automatic sprinklers. You will hear about the results of this testing and how this data may be applied such that HVLS fan installation does not negatively affect sprinkler performance.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

S06 8:00 AM – 9:00 AM

Hazard Analysis and Flammable Liquid Protection Coverage

TRACK(S): **FIRE SUPPRESSION**

J.R. Nerat, *Badger/Kidde Fire Protection*

This session covers the unique hazard analysis factors associated with flammable liquid burning situations and the various NFPA extinguisher coverage recommendations that apply. Topics you will learn about include flammable liquid and gas Class B fire classification, the numerical fire rating system and equipment selection factors, and hazard analysis and flammable liquid burning configurations. Other subjects include properly addressing fuels of less than appreciable depth, obstacle fire hazards, fuels of appreciable depth, gravity/three-dimensional fire hazards, and pressure fire hazards.

S07 8:00 AM – 9:00 AM

Developing Emergency Communication Strategies for Buildings

TRACK(S): **DETECTION & NOTIFICATION**

Kathleen Almand, *The Fire Protection Research Foundation*

At present, the 2010 edition of NFPA 72® provides requirements for the application, performance, and installation of emergency communication (or mass notification) technology. However, the code does not provide guidance or requirements on the content of emergency messages that are to be disseminated using mass notification technology. NIST is working with The Fire Protection Research Foundation to develop strategies for communicating emergency information to building occupants. This session will discuss year one of this effort, specifically summarizing the emerging and existing notification technologies, the current approaches used to notify citizens before and during emergencies, and over 50 years of social science research on public response during emergencies.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

S08 8:00 AM – 9:00 AM

NFPA 1600 — Business Continuity and Emergency Management: Partners in Preparedness and Response

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**

Kelley Okolita, *DRII*

Business Continuity and Emergency Management have similar goals in preparing for events. They each want to make sure they and their staff are properly trained and prepared to stabilize an incident, manage resources effectively and respond quickly and appropriately when an emergency occurs. This session will demonstrate the value of building that partnership and joining efforts to be ready, no matter what.

S09 8:00 AM – 9:00 AM

Protecting Scotland's Heritage: Managing the Contract

TRACK(S): **LOSS CONTROL/PREVENTION**

Bill Jackson, *National Library of Scotland*

The National Library of Scotland has a 300-year history and houses many national treasures from the military order for the massacre of Glencoe to Earl Haig's diaries from the First World War. The library is housed in a 15-story listed historic building in the center of the Old Town of Edinburgh and had serious issues related to fire safety. During this session you will first look at the history of major fires within the historic old town and the fire risk assessment process that led to a \$30M fire safety project to safeguard the collections for future generations. The second part will examine the issues surrounding managing a complex fire safety project within an operational building holding over 10 million historic documents.

Preview the Conference Handouts!

Maximize your time in the sessions by downloading the handouts in advance! Handouts will be available to attendees on the conference website prior to and a month after the conference. USB drives with speaker handouts will be distributed to conference attendees.

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OR CALL 1-888-397-6209



S10 8:00 AM – 9:00 AM

Dust Explosions 101

TRACK(S): **FIRE PROTECTION ENGINEERING**
LOSS CONTROL/PREVENTION

John Cholin, *J.M. Cholin Consultants, Inc.*

This is a one-hour primer on dust explosions, updated and revised for 2011 to reflect the most recent developments in dust explosion hazard management. It covers the fundamental definitions, the process and progress of dust explosions, and hazard recognition. The session concludes with a review of hazard management options outlined in *NFPA 654, 664, 484, and 61*.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION,
AND THE SOCIETY OF FIRE PROTECTION ENGINEERS

S11 8:00 AM – 9:00 AM

Fire Performance Evaluation of Dry-Pipe Sprinkler Systems for Protection of High-Rack Storages of Class III Commodity Using K-25.2 Sprinklers

TRACK(S): **FIRE PROTECTION ENGINEERING**
FIRE SUPPRESSION

Hsiang-Cheng Kung and **Sungchul Lee**, *Victaulic Company*

Cold-storage warehouses typically employ dry-pipe sprinkler systems for fire protection of Class III commodities, and these warehouses using traditional ceiling sprinkler protection often require additional in-rack sprinkler systems. In-rack sprinklers are susceptible to damage by warehouse operators and create inflexibility relative to reconfiguring the racks in a warehouse. It is highly desirable to develop a dry-pipe sprinkler protection system that provides adequate protection of rack storage in cold-storage warehouses without resorting to additional in-rack sprinkler protection. During this session, you will hear about the large-scale fire tests conducted to evaluate the performance of ceiling-only dry-pipe sprinkler systems using K-25.2 sprinklers for protection of 35- and 40-ft rack storage of Class III commodity with 5-ft ceiling clearance. The effectiveness of the systems depends on water delay time, sprinkler attributes, sprinkler discharge pressure (sprinkler discharge rate) and storage height. Sprinkler system water demand in terms of water delay time, end-head pressure, and number of heads have been developed in order to provide cost effective protection of 35- and 40-ft-high rack storages in cold-storage warehouses.

SPONSORED BY THE SOCIETY OF FIRE PROTECTION ENGINEERS

S12 8:00 AM – 9:00 AM

Using Infrared Thermography to Prevent Electrical Failures

TRACK(S): **ELECTRICAL**
LOSS CONTROL/PREVENTION

Craig Tuokkola, *Chubb Group of Insurance Cos.*

Electrical failures are one of the leading causes of fires and also generate costly repairs and downtime. This session will show how

use of a thermal imaging camera can identify areas of potential failure. You will see a real-life demonstration of an infrared camera as well as actual images of problems found during infrared scanning.

S13 8:00 AM – 9:00 AM

Fire Education Designed for People with Developmental Disabilities

TRACK(S): **PUBLIC EDUCATION**

Stacy Everson, *SEEDS Educational Services, Inc.*

Seeds Educational Services, Inc. (SEEDS) will present the "Fire Educator's Kit" with all its interactive materials for teaching people with developmental disabilities regarding home escape and in-home fire prevention.

S14 8:00 AM – 9:00 AM

Fire Prevention and Protection Guidance for Renewable Energy Industries — NFPA 850 Update

TRACK(S): **CODES & STANDARDS**
GREEN (1 GBCI CE hour)

Rickey Johnson, *OneBeacon Energy Group*

The 2010 edition of *NFPA 850: Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations* added new chapters addressing wind, solar, and geothermal renewable energy industries. This session provides insight into fire hazards within the wind, solar and geothermal industries, and the recommended practices to reduce these exposures.

S15 8:00 AM – 9:00 AM

Brush and Wildland Fires: The Surprising Facts You Need to Know

TRACK(S): **FIRE & EMERGENCY SERVICES**
PUBLIC EDUCATION

Marty Ahrens and **Michele Steinberg**, *NFPA*

Recently published NFPA research reveals surprising facts about brush, grass, and forest fires in the U.S. and local fire department response. Major Western wildfires that burn down homes (also known as wildland/urban interface fires) have been making headlines, but smaller brush, grass, and forest fires present problems throughout the U.S. From 2004 to 2008, local fire departments responded to nearly 1,000 such fires every day. While three-quarters of these fires burned an area of less than an acre, they also affected an average of 4,800 homes each year. Find out more about the causes, circumstances, and geographic distribution of these fires, the significant threat to life and structures that they pose, and techniques that can make people and property safer.

SPONSORED BY THE WILDLAND FIRE MANAGEMENT SECTION

Education Sessions

as of February 18, 2011



Get up-to-date conference details, listen to podcasts and view images from last year's conference in Las Vegas by visiting our blog: nfpa.typepad.com/conference

S17 8:00 AM – 9:00 AM

Solar Photovoltaic Systems and the U.S. Regulatory Environment

TRACK(S): **ELECTRICAL**
GREEN (1 GBCI CE hour)

Tom Lichtenstein and **Alfredo Ramirez**, *Underwriters Laboratories, Inc.*

As PV installations continue to represent an ever-increasing percentage of U.S. energy needs, regulatory requirements and compliance continues to be a significant challenge in many parts of the country. This session will answer many of your questions regarding a fast-changing technology, and its certification and code requirements.

SPONSORED BY THE INTERNATIONAL FIRE MARSHALS ASSOCIATION

S18 8:00 AM – 9:00 AM

The Culture of Poverty

TRACK(S): **PUBLIC EDUCATION**

Barbara Chandler, *Metropolitan Boston Housing Partnership*

Many families we work with live in generational or situational poverty. If we really want to be effective with these families we have to look at some of the assumptions and judgments we make about "those people." This interactive presentation will help us understand the kind of challenges these families face every day. If we have a better understanding of those challenges, we'll be more effective in reaching them.

SPONSORED BY THE EDUCATION SECTION

S20 9:30 AM – 10:30 AM

Developing Friction Loss Coefficients for Modern Fire Hose

TRACK(S): **FIRE & EMERGENCY SERVICES**
RESEARCH

Casey Grant, *Fire Protection Research Foundation*;
Joseph Scheffey, *Hughes Assoc Inc*

Learn about this Fire Protection Research Foundation study that develops baseline friction loss coefficients for the types of fire hose commonly used by today's fire service, and identifies additional performance characteristics that should be considered for friction loss calculations. The project directly addresses a topic specifically covered by *NFPA 1961: Standard on Fire Hose* (2007 edition) and *NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications* (2009 edition).

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

S21 9:30 AM – 10:30 AM

A History of Smoke Control Requirements in High-Rise Buildings

TRACK(S): **BUILDING & LIFE SAFETY**
CODES & STANDARDS

Sharon Gilyeat and **Joshua Talley**, *Koffel Associates, Inc.*

This presentation will go through the evolution of smoke control requirements in the building and fire codes as they apply to high-rise buildings. It will provide the reader a better understanding of how these requirements evolved and what is now required by the primary codes used in the US.

SPONSORED BY THE ARCHITECTS, ENGINEERS, AND BUILDING OFFICIALS SECTION

S22 9:30 AM – 10:30 AM

Reliability of Sprinkler Systems

TRACK(S): **FIRE SUPPRESSION**
LOSS CONTROL/PREVENTION

Kumar Bhimavarapu, *FM Global Research*

This session provides an objective interpretation of sprinkler system reliability and the reported reliability data. Reliability is analyzed in three ways: compatibility, operational reliability, and effectiveness. Based on an exhaustive literature survey, reported sprinkler system reliabilities were found to start from a low of 37%, while high reliabilities up to 99.5% have been achieved by many. The types of deficiencies that have caused the reported low sprinkler reliabilities can be minimized with proper diligence. During this session, you'll learn about the issues that affect sprinkler system reliability and the areas that need attention.

S23 9:30 AM – 10:30 AM

Evaluation of Extended Coverage (EC) Sprinklers for Nonstorage Applications

TRACK(S): **FIRE PROTECTION ENGINEERING**
RESEARCH

Jeffrey Newman, *FM Global*

During this session, you will examine the results and analysis of a study to assess whether "extended coverage" sprinklers could provide protection benefits comparable to those of standard sprinklers for non-storage applications (which are limited to small, scattered amounts of in-process storage). A series of large-scale sprinklered fire tests, performed with upright extended coverage (EC) sprinklers, resulted in demand areas no greater than those from standard sprinklers. Protection requirements for the EC sprinklers with the larger discharge coefficients were substantially less than for those for standard sprinklers. The results should also be generally applicable to pendent EC sprinklers due to the improved fire plume penetration of pendent versus upright sprinklers.

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S24 9:30 AM – 10:30 AM

The 17 Mistakes Made in Emergency Plans — How to Avoid and Correct Them

TRACK(S): **CODES & STANDARDS**
EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY

Bo Mitchell, 911 Consulting

Emergency planning for your organization is subject to many federal, state, and local laws, and regulations and standards, including *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs*. Most people who are tasked with creating and maintaining emergency plans are confused or overwhelmed regarding those standards. Learn what laws, regulations, and standards apply to your organization's emergency planning, training, and exercises. Learn how *NFPA 1600* can go from a "should" to a "shall." Learn what a lawsuit will do to you if you don't create a plan that addresses standard requirements. Learn the 17 mistakes organizations make in creating their plans today.

S25 9:30 AM – 10:30 AM

A Simplified Approach for Assessing Initial Fire Development and Spread

TRACK(S): **FIRE PROTECTION ENGINEERING**
RESEARCH

Kurt Schebel, Arup

During this session you will hear about a simplified method for assessing fire development and spread in passenger rail vehicles using small-scale test data and computational modeling. The method involves analyzing initiation fire scenarios, applying a material flame spread screening approach, applying a simplified upward flame spread model, and translating the outcomes into a computational fluid dynamics (CFD) model. By being able to quickly assess a material's propensity to spread flame for a range of initiation fires, this method can be used to support threat, risk, and vulnerability assessments; to screen materials for new design; and, in conjunction with additional assessment of initial flame spread characteristics, to predict the overall fire development and spread hazard for specific configurations and resultant impacts.

SPONSORED BY THE RESEARCH SECTION AND THE SOCIETY OF FIRE PROTECTION ENGINEERS

S26 9:30 AM – 10:30 AM

What You Can't See, Can Kill You: Properly Managing the Risks of Air and Nitrogen

TRACK(S): **LOSS CONTROL/PREVENTION**

James Haiser, Jr., Dow Corning Corporation

Incorrectly identifying air and nitrogen can have devastating effects on life and property. Understanding best practices in controlling this potential issue can save lives. This session will provide you with safety ideas, and discuss the importance of ensuring air and nitrogen sources are clearly identified and effectively controlled to prevent possible cross-contamination issues during operational

and maintenance activities. You will hear about the controls used to successfully manage this condition at Dow Corning, a global specialty chemicals company.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

S27 9:30 AM – 10:30 AM

Making Fire and Life Safety Presentations Accessible for People Who Are Blind or Have Low Vision

TRACK(S): **PUBLIC EDUCATION**

Marsha Mazz, *The Access Board*; **Beth Caruso**, *Perkins School for the Blind*; **Linda Woodbury**, *disabilities consultant and motivational speaker*

Basic fire safety information needs to be conveyed in a manner that gives everyone the opportunity to fully benefit from the session. Learn how to make your presentations, talks, meetings, and training accessible to people who are blind or have low vision.

SPONSORED BY THE PUBLIC EDUCATION DIVISION

S28 9:30 AM – 10:30 AM

Townhouse Fire Experiments

TRACK(S): **FIRE & EMERGENCY SERVICES**
RESEARCH

Daniel Madrzykowski, NIST

NIST working with the City of Chicago conducted a series of fire experiments in 20 vacant townhouses. Each townhouse was similarly furnished and instrumented to measure temperature in the rooms and gas velocity at windows and doors. Videos and data will show you how quickly hazardous conditions develop within the townhouses and the impact that different ventilation and indirect suppression tactics have on the conditions in the structure.

SPONSORED BY THE FIRE SERVICE SECTION

S29 9:30 AM – 10:30 AM

EV Charging Systems and the 2011 NEC® Requirements — Be Ready!

TRACK(S): **ELECTRICAL**
GREEN

Thomas Lichtenstein and **Alfredo Ramirez**, *Underwriters Laboratories, Inc.*

Projections for the market size of electric vehicles have shown that by 2015 there may be approximately one million EVs on the road in the United States and approximately five million by 2020. This session will answer your questions regarding charging system types, and certification and code requirements.

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Education Sessions

as of February 18, 2011



Get up-to-date conference details, listen to podcasts and view images from last year's conference in Las Vegas by visiting our blog: nfpa.typepad.com/conference

S30 9:30 AM – 10:30 AM

Changes in the 2011 Edition of NFPA 79, Electrical Standard for Industrial Machinery

TRACK(S): **CODES & STANDARDS**
ELECTRICAL

Mark Hilbert, MR Hilbert, *Electrical Solutions*

NFPA 79 provides the requirements that set the standard for electrical equipment on industrial machinery. This session will identify and review the significant changes made for the 2011 edition using a PowerPoint program with photos and illustrations.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

S32 9:30 AM – 10:30 AM

Liquid Fuel Fires: Fire Dynamics and Forensic Analysis

TRACK(S): **FIRE PROTECTION ENGINEERING**
RESEARCH

Dan Gottuk, *Hughes Associates, Inc.*

This study examined the spread and development of liquid fuel fires and the resulting fire patterns. Over 500 small, intermediate, and large liquid-spill and fuel-spill fire tests were conducted using a total of six different liquid fuels and eight different substrates. You will hear the results of these tests, which provide insight into the differences in fire dynamics between pool and spill fires, provide a methodology by which liquid fuel fire events can be assessed, and identify forensic indicators that can be used in the analysis of liquid fuel fire events.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION AND THE SOCIETY OF FIRE PROTECTION ENGINEERS

S33 9:30 AM – 10:30 AM

The Hazards of Combustible Metals — What You Don't Know May Injure or Kill Someone

TRACK(S): **LOSS CONTROL/PREVENTION**
CODES & STANDARDS

Tom Christman, CSP; **Kevin Kreitman**, *City of Redding Fire Department*

The hazards of combustible metals and metal dusts are well documented. *NFPA 484: Standard for Combustible Metals*, identifies the controls that are necessary for the prevention and control of fire and explosions involving combustible metals. This session will provide you with knowledge of the primary hazards of combustible metals and highlight the principal controls that are necessary to maintain a safe working environment.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

S34 9:30 AM – 10:30 AM

Strategic Leap in Residential Fire Safety: Wide-Scale Home Visits

TRACK(S): **PUBLIC EDUCATION**

Philip Schaenman, *TriData*

Over the past decade fire departments in many other nations have found a way to make 40 to 50 percent reductions in fire deaths below the U.S. level, with little cost. Line firefighters and community volunteers, typically coordinated by prevention and station captains, visit a large percentage of the higher-risk homes to ensure they have working smoke alarms, and install alarms if needed. This session describes successful results from England and Canada, and how the concepts have been adapted in nine U.S. fire departments. Much greater percentages of high-risk homes have no working smoke alarm than expected. Synergism with health, social service, and police home visits enhances the program.

S38 11:00 AM – 12:00 PM

Fire Cause Determination Using the Revised Chapter 18, NFPA 921

TRACK(S): **CODES & STANDARDS**

Joseph Carey, *Robinson & Cole LLP*

The Cause Determination chapter of the 2008 edition of *NFPA 921: Guide for Fire and Explosion Investigations*, has been completely revised for the 2011 edition. Learn why the chapter was revised, how it differs from previous editions, how the changes may affect your cause determination methodology, and why for the first time the term "negative corpus" appears in *NFPA 921*.

S40 11:00 AM – 12:00 PM

Strategies and Tools for Planning, Design, and Use of Emergency Communications Systems

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**
DETECTION & NOTIFICATION

Robert Schifiliti, *RPSA INC*

Emergency communications systems (ECSs), which include mass notification systems (MNSs), continue to rely on the use of voice as the primary messaging and communication strategy. However, there are other communications channels that can be effectively used during various stages of an event and to target different audiences. There has been tremendous advancement and evolution in communications needs, strategies, codes, standards, and delivery platforms. It's no wonder that planners, designers, authorities, installers, and users are struggling to understand and apply these changes. Learn more about the tools, options, and requirements in the 2010 edition of *NFPA 72®: National Fire Alarm and Signaling Code*, that are available to planners, designers, authorities, and users.

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S41 11:00 AM – 12:00 PM

Biggestone Award Retrospective: 25 Years of Advances in Fire Protection Engineering and Research

TRACK(S): **RESEARCH**

Kathleen Almand, *Fire Protection Research Foundation*;
Jack Watts, *Fire Safety Institute*

This year, Fire Technology celebrates the 25th anniversary of the Biggestone Award. The 25 award-winning papers represent a significant contribution to the advancement of state-of-the-art fire safety research and engineering. This session will summarize these advances through a retrospective on eight of these topics, reflecting changes in the science and practice since the time the papers were written.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

S42 11:00 AM – 12:00 PM

Mythbusters: Residential Sprinkler Messages for the Fire Service and Public Educators

TRACK(S): **PUBLIC EDUCATION**

Marie Figueroa, *NFPA Fire Prevention Field Office*; **Peg Paul**, *Peg Paul & Associates*; **Sherri Wilcox**, *Las Vegas Fire and Rescue*

Since NFPA published the first 13D in 1975, residential fire sprinklers have saved thousands of lives and millions of dollars in property damage, and have been adopted as a requirement in every major code. However, our residential fire problem remains unacceptable. Why? A major roadblock to residential sprinkler acceptance is a belief among the general public and even some first responders in myths about fire sprinklers, which are perpetuated by the media and sprinkler opponents. This session will give public educators and other fire service leaders the tools to explain and promote this life-saving technology, tips for using tools, and links to other valuable resources.

SPONSORED BY THE EDUCATION SECTION

S43 11:00 AM – 12:00 PM

Smoke Detection in Computer Rooms and Data Centers

TRACK(S): **DETECTION & NOTIFICATION**
FIRE PROTECTION ENGINEERING

Peter Johnson, *Arup*

This session on fire detection systems for computer rooms and data centers traces the development of methods of predicting detection times in high-airflow spaces. The session will show how fire science and fire protection engineering have advanced over 25 years to give new tools to practitioners for design.

SPONSORED BY THE SOCIETY OF FIRE PROTECTION ENGINEERS
AND THE FIRE PROTECTION RESEARCH FOUNDATION

S44 11:00 AM – 12:00 PM

Full Building Evacuation Strategies: The Precedents Set Globally

TRACK(S): **BUILDING & LIFE SAFETY**

Aaron Vanney, *Rolf Jensen & Associates, Inc.*

While phased-evacuation strategies for high-rise buildings have set precedents in the U.S. for many years, a series of requirements in the 2009 *International Building Code* will force fire protection consultants to also consider egress strategies for full building evacuations. With these new requirements providing an initial framework, consultants should be cautious when developing such strategies for global projects. Full building evacuation strategies utilizing refuge floors have already set precedents in Asia and the Middle East. This session will highlight some of the key considerations when developing a strategy for a full building evacuation, including evacuation timing, human behavior, and potential hazards.

S45 11:00 AM – 12:00 PM

The 2012 Edition of NFPA 99

TRACK(S): **CODES & STANDARDS**

David Degana, *Wentworth Douglass Hospital*

The 2012 edition of *NFPA 99: Standard for Health Care Facilities* has undergone a comprehensive rebuilding and rewrite. The outcome is an integrated document that is scalable for a variety of care settings, while being robust enough to address existing and emerging risk management needs of health care facilities. This session will provide you with an overview of the standard.

SPONSORED BY THE HEALTH CARE SECTION

S46 11:00 AM – 12:00 PM

Natural Gas Piping and Purging: Safe Work Practices

TRACK(S): **LOSS CONTROL/PREVENTION**

Jason Safarz, *CEC Combustion Services Group*

There is often a huge and dangerous lack of knowledge among those who routinely manage or perform gas piping repairs and purging. This session will help raise your awareness of this important issue and present practical guidance to those involved. The session will address the dangers and many of the common mistakes made when performing natural gas piping repairs. It gives managers, maintenance people, and operators of combustion equipment the plans and safety protocols to follow to avoid the potentially catastrophic results that come from improper installation of natural gas piping, focusing particularly on the steps to take during the purging process.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

S47 11:00 AM – 12:00 PM

Sprinkler Plan Review — Avoiding the Usual Mistakes

TRACK(S): **FIRE SUPPRESSION**

Robert Caputo, *Fire & Life Safety America*

This live version of NFPA's popular webinar will provide you with a comprehensive and consistent approach to effective review of sprinkler plans and hydraulic calculations.

S48 11:00 AM – 12:00 PM

Updated FSRs to Be Deployed Countrywide

TRACK(S): **FIRE & EMERGENCY SERVICES**

Frederick Brower, *Insurance Services Office, Inc.*

Insurance Services Office, Inc. (ISO) has embarked on updating its Fire Suppression Rating Schedule (FSRS) used to analyze community efforts to mitigate the loss from fire. Many components of the process have been strengthened to recognize current applicable NFPA standards, new technology, and best practices. New content has been added such as evaluating community risk reduction programs dealing with codes and enforcement and deployment analysis of fire apparatus. You will learn about key updates during this session and also find out how you can receive further education about the FSRs.

SPONSORED BY THE FIRE SERVICE SECTION

S49 11:00 AM – 12:00 PM

Effect of Propylene Glycol/Water Solution on Suppression of Corrugated Cardboard Cartoned Commodities

TRACK(S): **LOSS CONTROL/PREVENTION**

RESEARCH

Bennie Vincent, *FM Global*

Wet-pipe, closed-head sprinkler systems are a desirable alternative for fire protection of industrial freezers and other occupancies in which ambient air temperatures are maintained below the freezing point of water. A number of compounds have been proposed for use as antifreeze agents. Propylene glycol is now receiving increasing attention as an effective antifreeze agent. Small-scale and intermediate-scale fire tests have indicated that propylene glycol solutions may actually increase the intensity of burning fuels. You will learn about efforts to quantify the effect of this contribution through a series of large-scale fire suppression tests. The tests were conducted to assess the effect of propylene glycol solution upon the fire hazard of standard commodities routinely used to assess fire hazards associated with industrial warehouse and commercial properties.

S50 11:00 AM – 12:00 PM

Electrical Grounding and Bonding Revisions in the 2011 NEC®

TRACK(S): **ELECTRICAL**

Michael Johnston, *NECA*

This session provides you with a detailed look at the most significant changes in the 2011 *National Electrical Code*® related to grounding and bonding installations. Hear specific information about what changed, why it changed, and what the impact is for installers, inspectors, and owners.

S51 11:00 AM – 12:30 PM

Firefighter Safety Considerations for Rooftop Photovoltaic (PV) System Installations

TRACK(S): **FIRE & EMERGENCY SERVICES**

GREEN (1 GBCI CE hour)

RESEARCH

Bob Backstrom and **Robert James**, *Underwriters Laboratories, Inc.*; **Tonya Hoover**, *California State Fire Marshal*; **Matthew Paiss**, *San Jose Fire Department*

Green building techniques are growing and the use of PV is increasing at a rate of 30 percent annually in the US. Among the hazards associated with these systems are high-voltage (up to 600 vdc), and limitations for vertical ventilation space. This makes fighting fires with PV systems installed on buildings more complicated. Join this panel of experts to gain a basic understanding of how PV systems operate, the hazards associated with rooftop PV systems, and how PV systems affect firefighting tactics and strategies. The session will include a discussion on a UL research project on firefighter vulnerability to electrical and casualty hazards when fighting a fire involving PV systems. This session will provide you with vital information to help you understand what is above you, what can hurt you, and how you can stay safe working around PV systems.

S52 11:00 AM – 12:00 PM

How Fire History Has Shaped the Fire Protection Environment of Today

TRACK(S): **BUILDING & LIFE SAFETY**

Stephanie Schorow, *Boston Fire Historical Society Board*

Stephanie Schorow will discuss some devastating fires and related events in Boston to illuminate how fire history has shaped the fire protection environment of today.

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Monday, June 13, 2011

M01 8:00 AM – 9:00 AM

Voice Intelligibility Requirements of the 2010 Edition of NFPA 72®

TRACK(S): **DETECTION & NOTIFICATION**

Ray Grill, *Arup*

The 2010 Edition of *NFPA 72*® includes new requirements for design of intelligible voice alarm systems. Guidance for designing systems has also been incorporated. This presentation will review the new requirements and provide examples of systems and design approaches.

M02 8:00 AM – 9:00 AM

Safety and Industrial Hygiene Professionals: Critical Elements in Preparedness and Emergency Management

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**

Dean Larson, *Purdue University Calumet*; **David Trebisacci**, *NFPA*

Safety and industrial hygiene professionals offer a variety of skills that can be effectively used in addressing the problems related to emergency incidents. These issues include the prevention of, preparedness for, response to, and recovery from emergency incidents. These professionals are often an underutilized resource to emergency management organizations in the public, private, and not-for-profit sectors. Participate in this session to learn how to put their know-how to work for your group.

M03 8:00 AM – 9:00 AM

Building Material Certification for Sustainability

TRACK(S): **CODES & STANDARDS**
GREEN (1 GBCI CE hour)

Richard Ferron, *FM Approvals*; **Karl Meredith**, *FM Global*

Today, many construction projects focus on green materials. An often overlooked aspect of a building's greenness is the effect of fires, floods, earthquakes, etc. Building loss from fires/natural hazards can nullify green-construction benefits because of the carbon footprint of disposal/reconstruction. Several criteria for determining the greenness of a construction project relate to material properties, such as thermal properties, recycled content, volatile organic compounds, etc. Still, are the products safe? Are they capable of withstanding fires? Will they survive the life of the building? The range of properties evaluated for truly green construction must be expanded to include properties related to fire and natural hazards. Independent material property certification is necessary to ensure that not only are they green but will also assist in property-loss protection.

M04 8:00 AM – 9:00 AM

Reconstructing the Sofa Super Store Fire — Understanding the Fire Dynamics

TRACK(S): **FIRE PROTECTION ENGINEERING**

Nelson Bryner, *NIST*

A computer fire model was used to simulate and visualize the fire conditions that occurred in the Sofa Super Store Fire in Charleston, South Carolina. Hear more about this reconstruction that presents the results of numerical simulations and analyses of fire spread, smoke movement, gas temperature profiles, tenability, and operation of fire protection systems that relate to the conditions in this multiple-fatality fire incident. Simulations also examine the impact of ventilation, fuel type, building geometry, and automatic water sprinklers. This session will describe the structure and fuels before examining the fire growth throughout the structure via computer animations.

SPONSORED BY THE FIRE SERVICE SECTION, RESEARCH SECTION AND THE SOCIETY OF FIRE PROTECTION ENGINEERS

M05 8:00 AM – 9:00 AM

Proving Public Education Works: Raising a Fire Safe Generation of Children

TRACK(S): **PUBLIC EDUCATION**

Michael Cassidy, *Holliston Fire Department*; **Jennifer Mieth**, *Department of Fire Services*; **Cynthia Ouellette**, *Rhode Island College*

Public fire education is vital to the lives of children and their families, but it is difficult to know whether children really understand what we think we are teaching. This team from Massachusetts will discuss a variety of ways in which they have been successful in documenting what students actually know. They will highlight the user-friendly tools for firefighter-educators that they use to evaluate student learning. In addition, they will showcase their newly developed third-grade evaluation tool that will assist in demonstrating statewide success while maintaining local program flexibility.

M06 8:00 AM – 9:00 AM

Proper Fire Protection for Unique Construction Features

TRACK(S): **FIRE PROTECTION ENGINEERING**
RESEARCH

William Koffel, *Koffel Associates, Inc.*

Industrial facility designs often result in some unique construction features. In this instance, nonstructural steel penetrations were made through two-hour fire barriers. In addition, a structural steel beam was in the plane of a two-hour fire barrier and exposed on both sides of the wall. In order to determine the appropriate fire protection, small-scale tests, modeling, and full-scale fire tests were conducted. Learn about the results of the analyses and how the features were protected.



M07 8:00 AM – 9:00 AM

Safety Programs, Safe Workers

TRACK(S): **ELECTRICAL**

Michael Johnston, NECA

This session reviews essential requirements for a high-quality electrical contractor safety program. It examines the important requirements related to implementing an effective safety program and the importance of management buy-in. This session also covers the shared responsibilities of employers and employees on the construction jobsite.

M08 8:00 AM – 9:00 AM

Fire Safety Education and the Web: The Good, the Bad, and the Ugly

TRACK(S): **PUBLIC EDUCATION**

Paul Schwartzman, Fairport Counseling Services

The Internet has been blamed for providing information that has modeled dangerous behaviors (YouTube) as well as hailed as a source of current science and knowledge. This session will explore how to be a good consumer, highlight the myriad ways that the Internet can be integrated into positive fire safety education, and review some of the more destructive uses and also identify some possible safeguards.

SPONSORED BY THE EDUCATION SECTION

M09 8:00 AM – 9:00 AM

Assessment of the Thermal Hazard from Fire Service Training Fires

TRACK(S): **FIRE & EMERGENCY SERVICES RESEARCH**

Daniel Madrzykowski, NIST

Live fire service training evolutions are an effective training method, but they can expose trainees and instructors to significant hazards. Each year thousands of firefighters are injured during training, some during live fire training evolutions. *NFPA 1403: Standard on Live Fire Training Evolutions* provides requirements for live training evolutions, but the committee responsible for the standard wants to add detail to improve safety. This research is being conducted by the Fire Protection Research Foundation and is supported with a DHS/FEMA Assistance to Firefighters Research Grant. This session provides you with an assessment of the thermal hazards of live fire training evolutions by (1) developing guidance for use by training instructors based on the hazards associated with live fire training evolutions and (2) identifying the knowledge gaps not addressed by the collected information and the establishment of a test plan to address these gaps.

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M10 8:00 AM – 9:00 AM

Water Application Rates for Fixed Firefighting Systems in Road Tunnels

TRACK(S): **FIRE SUPPRESSION**

Kenneth Harris, Parsons Brinckerhoff

Find out more about the fixed firefighting systems (FFFS) that are gaining increased attention as a means to provide an early response to a road tunnel fire. One of the more difficult aspects about FFFS is defining their objectives. Five possible objectives can be defined for an FFFS: 1) extinguishment, 2) suppression, 3) control of burning, 4) exposure protection, and 5) prevention of fire. A fire incident response has many elements and it may be advantageous to consider that an FFFS is not necessary to extinguish the fire, but may instead be used to minimize the effects of the fire. This leads to consideration of the other four objectives. All five of these objectives can be shown to utilize the same basic mechanism for reduction of heat or heat release rate. Focusing on suppression and control of burning, however, may be the most effective utilization of FFFS.

SPONSORED BY THE RAIL TRANSPORTATION SYSTEMS SECTION

M11 8:00 AM – 9:00 AM

Health Care Hot Topics and AHJ Interpretations

TRACK(S): **CODES & STANDARDS**

George Mills, The Joint Commission; **James Merrill**, CMS; **Thomas Gardner**, The Protection Engineering Group

This session will review for you the current hot topics of concern to the health care industry. Key Authorities Having Jurisdiction (AHJs) will discuss code interpretations, commonly cited code deficiencies, and plans for future code adoptions. There will also be a question and answer session where AHJs can share their insight and viewpoints.

SPONSORED BY THE HEALTH CARE SECTION

M12 8:00 AM – 9:00 AM

Ambulance Crash Safety Research

TRACK(S): **FIRE & EMERGENCY SERVICES RESEARCH**

James Green, NIOSH, **Larry Stewart**, NFPA

The Center for Disease Control's National Institute for Occupational Safety and Health (NIOSH) and the National Highway Traffic Safety Administration have been investigating the risk factors for EMS workers involved in ambulance crashes. NIOSH is identifying and testing alternative measures to reduce injury risk to EMS workers. The NIOSH Evaluation of Emergency Services Vehicle Occupant Safety Project involves the review of data on ambulance crash statistics, hazard identification, and task analysis; determination of appropriate crash-testing methodologies and development of occupant restraint systems; and modeling of ambulance crash scenarios and how this might benefit the standards development process.

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M13 8:00 AM – 9:00 AM

NFPA 13 — 2010 Edition Technical Changes for Storage Occupancies

TRACK(S): **CODES & STANDARDS**
FIRE PROTECTION ENGINEERING

Robert Caputo, *Fire & Life Safety America*

Keeping up to date with the latest version of *NFPA 13: Standard for the Installation of Sprinkler Systems* can be a daunting task for the most voracious of readers. This session will walk you through each change impacting storage occupancies with commentary and highlights from the committee discussions for each new or revised section.

M14 8:00 AM – 9:00 AM

Locating Fire-Resistance Designs Using New UL Online Application

TRACK(S): **BUILDING & LIFE SAFETY**

Howard Hopper and **Robert James**, *Underwriters Laboratories, Inc.*

In the past, architects and code authorities have struggled to locate hourly rated designs that meet code requirements and design specifications. This interactive session introduces you to UL's new ULtimate Fire Wizard, which will help you to greatly simplify the design and approval process.

SPONSORED BY THE ARCHITECTS, ENGINEERS, AND BUILDING OFFICIALS SECTION, AND THE INTERNATIONAL FIRE MARSHALS ASSOCIATION

M15 8:00 AM – 9:00 AM

Understanding Risk Analysis Concepts and Their Requirements in NFPA 72®–2010 Edition

TRACK(S): **DETECTION & NOTIFICATION**

Wayne Moore, *Hughes Associates*

For the first time in the history of the *National Fire Alarm and Signaling Code* another emergency system is allowed to take precedence over a fire alarm signal for message and emergency notification. The process and approval for the priority of signals is required to be determined by a risk analysis. The term "risk analysis" appears approximately 44 times in Chapter 24 of *NFPA 72–2010* and this edition is the first time that users of the code must rely on the risk analysis process for mass notification systems. In this session you will learn about the basic risk analysis concepts that should be used to meet the requirements of the code and we will also review each section where risk analysis is required.

SPONSORED BY THE SOCIETY OF FIRE PROTECTION ENGINEERS

M16 8:00 AM – 9:00 AM

Life Safety Inspections

TRACK(S): **BUILDING & LIFE SAFETY**

Craig Schroll, *FIRECON*

This session will focus on inspecting the less components that are essential to life safety. Comprehensive life safety inspections include many more items than can be adequately covered in a brief conference session. We will look at life safety inspections from the perspective of the facility manager and the routine walk around inspections they should be making to ensure that basic life safety issues have been adequately handled. Brief mention will be made of the other major items that a comprehensive inspection process must cover to be certain your occupants are protected. The session will include a virtual inspection with good and bad examples of the things you might find during inspections.

Cancelled

FEATURED PRESENTATION

FP 9:30 AM – 10:30 AM



Lessons Learned Regarding Industrial Gas Safety Practices

TRACK(S): **LOSS CONTROL/PREVENTION**

Rafael Moure-Eraso,
U.S. Chemical Safety Board

The U.S. Chemical Safety Board (CSB) investigated the February 7, 2009, accident at Kleen Energy that fatally injured six workers. The accident occurred during a planned work activity to clean debris from natural gas pipes. To remove the debris workers used natural gas at a high-pressure of approximately 650 pounds per square inch. The high velocity of the natural gas flow was intended to remove any debris in the new piping. During this process, the natural gas found an ignition source and exploded. This presentation will describe the root causes of the CSB's investigation into the Kleen Energy natural gas explosion. The CSB issued recommendations in an effort to prevent the use of natural gas during cleaning of piping systems. The board's recommendations were issues to a number of recipients including the National Fire Protection Association (NFPA), the Occupational Safety and Health Administration and the State of Connecticut.

Education Sessions

as of February 18, 2011

Get up-to-date conference details, listen to podcasts and view images from last year's conference in Las Vegas by visiting our blog: nfpa.typepad.com/conference

M20 11:00 AM – 12:00 PM

AFG Fire Prevention and Safety Grants: The Reverse Panelist Experience

TRACK(S): **PUBLIC EDUCATION**

Cathie Patterson and **Maggie Wilson**, *DHS/FEMA Assistance to Firefighters Grant Program*

The Assistance to Firefighters, Fire Prevention and Safety Grants (FP&S) provide for prevention and safety projects each year. Securing funding for FP&S grants can be challenging. With more than 3,000 applications received each year, less than 250 awards are issued. Applications are reviewed through a peer review process. This session will provide prospective applicants with insight into the peer review process. You will participate in hands-on exercises to learn what panelists experience when reviewing applications with the goal of improving the applicant's ability to prepare competitive narratives.

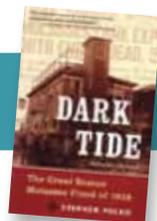
M21 11:00 AM – 12:00 PM

Dark Tide: The Great Boston Molasses Flood of 1919*

Stephen Puleo, *author and historian*

Shortly after noon on January 15, 1919, a fifty-foot-tall steel tank filled with 2.3 million gallons of molasses collapsed on Boston's waterfront, disgorging its contents in a 20-foot wave of molasses that traveled at thirty-five miles per hour. When the tide receded, a section of the city's North End had been transformed into a war zone. The Great Boston Molasses Flood claimed the lives of 21 people, injured 150, killed scores of animals, and caused widespread destruction. Stephen Puleo's *Dark Tide* is the first nonfiction account of the molasses flood, and the book places the event in its full historical context. Tracing the era from the tank's construction in 1915 through a multi-year lawsuit that followed the disaster, and drawing from long-lost court documents, Puleo uses the gripping drama of the molasses flood to examine the sweeping changes brought about by World War I, the anarchist movement, immigration, and the expanding role of government on big business and society. It's also a chronicle of the courage of ordinary people, from the firemen caught in the catastrophe to Judge Hugh Ogden, the soldier-lawyer who presided over the lawsuit with heroic impartiality.

This presentation is followed by a book signing in the Expo Hall at 12:30 pm.



M22 11:00 AM – 12:30 PM

Improving Stairway Usability and Safety to Enhance Life Safety

TRACK(S): **BUILDING & LIFE SAFETY**

Jake Pauls, *Jake Pauls Consulting Services*

Defective stairways are a leading cause of injuries in buildings, greatly outnumbering the toll from fire. Proper stairway design has been an especially important component of *NFPA 101*® and *NFPA 5000* in all editions during last 33 years of the presenter's lead role in advancing stairway safety and usability on the relevant NFPA committees. Specific examples of NFPA's contributions to improved safety and usability are highlighted. Understanding three key sets of factors (visibility, geometry and handrails) is critical to improving stairway safety, as well as their usability in all conditions including egress. Such improved understanding of these key factors, plus practical problems of implementation, can help reduce the current societal cost, on the order of \$10 million dollars per hour, in the USA.

M23 11:00 AM – 12:30 PM

Life Safety Code® for Health Care Occupancies 2000 to 2012

TRACK(S): **BUILDING & LIFE SAFETY**
CODES & STANDARDS

Jennifer Frecker and **James Lathrop**, *Koffel Associates Inc.*

The 2012 *NFPA 101*®: *Life Safety Code*® will be up for NFPA membership consideration at the 2011 NFPA Conference & Expo. There is a reasonable chance that The Center for Medicare and Medicaid Services (CMS) and The Joint Commission might adopt the 2012 edition of the code. This session will examine additions and changes to the code from 2000 to 2012 that affect the health care setting (primarily hospitals and nursing homes).

SPONSORED BY THE HEALTH CARE SECTION

M24 11:00 AM – 12:30 PM

Understanding the U.S. Firefighter Fatality Problem in 2010

TRACK(S): **FIRE & EMERGENCY SERVICES**
RESEARCH

Rita Fahy and **Kenneth Willette**, *NFPA*; **Thomas Hales**, *NIOSH, CDC*

Learn about the results of NFPA's 2010 firefighter fatality study along with two or three multi-year analyses of specific aspects of the firefighter fatality problem. Also included in this session will be a look at NIOSH's investigation of deaths related to cardiac issues. Specific topics will be chosen in cooperation with the Fire Service Section.

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M25 11:00 AM – 12:30 PM

Flames in the W/UI: How Wildfire Mitigation Planning Can Minimize Risk to People and Property

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**

Gerry LaCavera, Florida Division of Forestry; **Molly Mowery**, NFPA

This session focuses on the importance and effectiveness of wildfire mitigation planning. We will present a variety of mitigation options — information, education/outreach, and fuel management strategies — and discuss how each option helps reduce wildfire risk to communities. The session will highlight a range of initiatives currently underway in the state of Florida: the Firewise Communities program, Ready, Set, Go!, Community Wildfire Protection Plans, an updated Wildfire Mitigation Planning guidebook, and the development of a state Wildfire Hazard Mitigation Plan. These initiatives will be discussed in terms of their ability to advance mitigation planning efforts, prioritize areas at risk, and/or increase funding opportunities for wildfire hazard mitigation.

SPONSORED BY THE WILDLAND FIRE MANAGEMENT SECTION

M26 11:00 AM – 12:30 PM

Commissioning of Smoke Control Systems — A Multi-Discipline Approach

TRACK(S): **BUILDING & LIFE SAFETY
DETECTION & NOTIFICATION**

John Kampmeyer, Triad Fire Protection Engineering Corp.

The purpose of commissioning is to determine the interoperability of fire protection systems. Nothing illustrates this better than the commissioning of smoke control systems, which require correct operation of HVAC, electrical, fire alarm, building automation, and sprinkler systems. In order to have a properly operating system, it is first necessary for each subsystem to be individually commissioned and then the system tested as a whole. Testing involves confirmation of system operation as well as measurement of airflows, pressures, and other operating parameters. Learn more about these important tests during this session.

SPONSORED BY THE ARCHITECTS, ENGINEERS, AND BUILDING OFFICIALS SECTION

M27 11:00 AM – 12:30 PM

Flammable and Combustible Liquids in Plastic Containers: Understanding the Code, Case Study Implementation, and New Research

TRACK(S): **LOSS CONTROL/PREVENTION
RESEARCH**

David Nugent, Valspar; **Thomas Work**, Dow Corning Corporation

In today's economy chemical manufacturers are being challenged to provide packaging options aimed at both reduced handling and more efficient operations. An area of significant change has been the use of composite intermediate bulk containers (IBCs) for the

storage and use of combustible liquids. The commercial growth of composite IBCs in flammable and combustible liquid service has been challenging risk managers to assure a safe and NFPA 30-compliant operation. Find out about the provisions for "protected" and "unprotected" storage in NFPA 30 including liquid properties, container types, allowable quantities, storage arrangements, aisle spacing, and recognized fire protection systems. You'll also hear about a case study of the process used by a major specialty chemicals company to manage the hazard through the U.S.-wide implementation of a UL 2368 listed composite IBC program. Also, a new research program to explore the potential for safe storage of selected aqueous solutions of polar solvents and emulsions in these containers will be described.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION AND THE FIRE PROTECTION RESEARCH FOUNDATION

M28 11:00 AM – 12:30 PM

New Requirements in the 2012 NFPA 70E®, Standard for Electrical Safety in the Workplace®

TRACK(S): **ELECTRICAL**

David Dini, Underwriters Laboratories, Inc.; **Paul Dobrowsky**, Innovative Tech Services

The session includes proposals and comments discussed and acted on by the technical committee. This document is scheduled to be acted on at this Technical Session. The information will be applicable to everyone having a basic understanding of electrical safety and NFPA 70E.

SPONSORED BY THE ELECTRICAL SECTION

M29 11:00 AM – 12:30 PM

The Three E's: What Your Mother Never Told You about Engineering, Education, and Enforcement

TRACK(S): **PUBLIC EDUCATION**

Scott Adams, Park City Fire Service District; **Earl Diment**, Pioneering Technology Corporation; **Lynn Schofield**, Provo City Fire Department; **Dan Stubbs**, Provo City Center; **Sherri Wilcox**, Las Vegas Fire and Rescue

We have taught it for years. Most educators, fire prevention, and fire suppression personnel have heard the three components of an effective fire prevention program — the three E's: engineering, education, and enforcement. Now for the first time we'll put all of them in the same room for a no-holds-barred discussion on fire prevention and safety. Beginning with our computer modeling and system designing engineers and continuing with our warm and fuzzy educators, this program will for the first time include "those guys" — the code dudes, the wedge police, the AHJs. We'll discuss how each of these components weave together to provide for firefighter safety and the best fire prevention strategies for your communities. Come and join us for a 90-minute cage match — for life.

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Education Sessions

as of February 18, 2011



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M30 11:00 AM – 12:30 PM

The 2010 and 2013 National Fire Alarm and Signaling Code — A Panel Discussion of Strategic Changes and Possible New Material

TRACK(S): **DETECTION & NOTIFICATION**
FIRE PROTECTION ENGINEERING

Merton Bunker, Jr., *US Department of State*; **Laurence Dallaire**, *Architect of the Capitol*; **Wayne Moore**, *Hughes Associates, Inc.*; **Warren Olsen**, *FSCL*; **Robert Schifiliti**, *R.P. Schifiliti Associates, Inc.*

The 2010 edition of *NFPA 72®: The National Fire Alarm and Signaling Code*, is an all-encompassing signaling systems standard that has been reorganized and expanded in scope and breadth from that of previous editions. A panel of experts, composed of Technical Committee chairs and moderated by the chair of the Technical Correlating Committee, will review the new structure and content in the 2010 edition. The panel will also discuss proposals already processed by the Technical Committees as they work towards the 2013 edition. Topics include emergency communications systems, hierarchical survivability requirements, simplified circuit performance designations, voice intelligibility requirements and testing protocols, low frequency alerting signals, and other key changes.

M31 11:00 AM – 12:30 PM

The Relative Role of Smoke Detectors and Sprinklers in Providing Life Safety in Residential Occupancies

TRACK(S): **DETECTION & NOTIFICATION**
FIRE SUPPRESSION

James Milke, *University of Maryland*

This paper will provide an overview of a recent study intended to indicate the relative performance of detectors and sprinklers in one- and two-family dwellings and apartments, commercial residential (i.e., hotels), and institutional occupancies. In so doing, the important roles of smoke detectors and sprinklers will be illustrated. The studies included in this presentation include statistical analyses of smoke detector and sprinkler performance from fire incident data and data from experimental programs.

M32 11:00 AM – 12:30 PM

NFPA Combustible Dust Standards Update

TRACK(S): **CODES & STANDARDS**
LOSS CONTROL/PREVENTION

Guy Colonna, *NFPA*

The NFPA combustible dust hazard standards form the most comprehensive basis for identifying hazardous conditions and establishing controls. All five documents are currently undergoing revisions, with some changes intended to correlate common requirements. At this session, you will get an update on the changes, their basis, and the current status.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

M35 1:00 PM – 4:00 PM

Examen CEPI (Certificación para Especialistas en Protección contra Incendios)

M40 2:00 PM – 6:00 PM

NFPA Standards Forum

TRACK(S): **CODES & STANDARDS**

Maureen Brodoff, **Amy Cronin** and **Christian Dubay**, *NFPA*; **James Pauley**, *Square D Company/Schneider Electric*

This session will allow technical committee members and others to exchange views with the NFPA Standards Council.

M41 2:45 PM – 3:45 PM

Variable Orifice Multi-Application Fire Sprinkler

TRACK(S): **FIRE SUPPRESSION**
RESEARCH

Dr. Ralph Mehr, *Israel Fire Protection Association*

In order to improve the performance of the fire sprinklers, a new conception of operation is suggested. The basic idea is to build a fire sprinkler that incorporates a mechanism that changes the orifice size as a function of the pressure. Higher pressure will produce a larger orifice and much more flow than a regular sprinkler would provide. The first sprinkler to be opened will discharge much more water than would a regular one but will decrease the flow as more sprinklers open.

M43 2:45 PM – 3:45 PM

Residential Fire Tenability

TRACK(S): **RESEARCH**
FIRE PROTECTION ENGINEERING

Steve Kerber, *Underwriters Laboratories, Inc.*

The residential fire environment has changed over the last few decades. Newer homes have larger square footage, open floor plans, multi-story rooms, synthetic fuel loads, and light-weight construction materials — all of which impact fire dynamics and occupant egress time. Learn about the series of full-scale experiments Underwriters Laboratories conducted to examine the impact of these factors. You will hear about the experimental results and a discussion of tenability in modern residential houses.

SPONSORED BY THE SOCIETY OF FIRE PROTECTION ENGINEERS

M44 2:45 PM – 3:45 PM

Risk Assessment & Business Impact Analysis: A Foundation of the Emergency Management and Business Continuity Program

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**

Donald Schmidt, *Preparedness, LLC*

Development of an emergency management and business continuity program requires a clear understanding of the hazards and hazard scenarios that may threaten life, property, business operations, and the environment. The risk assessment will help

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you decide on the required scope and abilities of your emergency response team. A clear understanding of the potential impact of hazards on business operations is needed to determine how much to invest in recovery strategies. The BIA must identify critical business functions and dependent and interdependent functions required to support these critical business functions. Finally, the BIA must determine recovery time objectives for restoration of critical business functions before their interruption creates unacceptable consequences. This session will address subjects that are too often addressed separately.

M45 2:45 PM – 3:45 PM

Do You Have Evaluation Phobia? We Have the Cure

TRACK(S): **PUBLIC EDUCATION**

Gerry Bassett and **Mary Marchone**, *USFA/National Fire Academy*

Does the thought of an evaluation make you feel anxious? This session is a prescription designed for those with evaluation anxiety. It will give you some basic techniques and tools to evaluate public education programs and inspection services. Examples of evaluation measures, instruments, and methods to measure change during planning and implementation will be provided. Short- and long-term effects will also be discussed.

SPONSORED BY THE PUBLIC EDUCATION DIVISION

M46 2:45 PM – 3:45 PM

NFPA 3, Commissioning: What to Expect

TRACK(S): **FIRE PROTECTION ENGINEERING**
FIRE SUPPRESSION
DETECTION & NOTIFICATION

Cecil Bilbo, Jr., *Academy of Fire Sprinkler Technology*;
David Hague, *Liberty Mutual*; **Matthew Klaus**, *NFPA*

This session will outline the newly proposed document: *NFPA 3: Recommended Practice on Commissioning of Fire and Life Safety Systems*. You will hear about the history of the document, including the results of the ROP and ROC meetings, and also get a firsthand review of the draft document as it moves forward. The session will conclude with suggestions on how the document can be applied once published.

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M47 2:45 PM – 3:45 PM

Review of Significant Gas Accidents

TRACK(S): **CODES & STANDARDS**
LOSS CONTROL/PREVENTION

Theodore Lemoff, *TLemoffengineering*

Significant incidents involving fuel gas purging and gas blowing have occurred. During this session you will find out more about these incidents, their investigations, and their impact on codes and standards.

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M48 2:45 PM – 3:45 PM

Investigation, Mitigation, Spoliation, Litigation and Compliance with NFPA 921: The Forensic and Legal Response to a Large-Loss Fire

TRACK(S): **LOSS CONTROL/PREVENTION**

Larry Varn and **Jeffrey Francis**, *Pierce Atwood LLP*

You will hear a discussion of the forensic and legal concerns in conducting the initial response to, and investigation of a large-loss fire. The session will address compliance with *NFPA 921* and compliance with the state and federal rules of evidence to avoid spoliation; managing relationships with the fire service, customers, and/or clients to mitigate losses; insurance policy compliance to preserve coverage; and preserving the attorney–client privilege of pre-suit investigation in anticipation of litigation.

M49 2:45 PM – 3:45 PM

NFPA 25: Change Is Good

TRACK(S): **FIRE SUPPRESSION**
LOSS CONTROL/PREVENTION

Russell Leavitt, *Telgian Corporation*

Understanding and implementing the requirements of *NFPA 25: Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems* is critical to any successful and cost-effective compliance program. The 2011 edition of *NFPA 25* contains substantial revisions. This session reviews the scope of the standard and the roles of the owner, AHJ, and inspector as clarified in the new edition. Additionally, major revisions such as fire pump testing frequency, the rating of deficiencies, the maintenance of dry systems, and system air tests are examined. Stay ahead of the game by having the latest information for the maintenance of water-based suppression systems.

M50 2:45 PM – 3:45 PM

National Trends in Delivery of Health and Long-Term Care: Implications for Safety Codes and Standards

TRACK(S): **RESEARCH**

Kathleen Almand, *The Fire Protection Research Foundation*

This session provides the highlights of a summit jointly organized by the Fire Protection Research Foundation and NFPA. It was designed to provide leaders in the health care fire safety community an opportunity to pause and reflect on the safety implications of emerging trends in delivery of health care, long-term care, and personal care.

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as of February 18, 2011



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M51 2:45 PM – 3:45 PM

Flammability of Upholstered Furniture

TRACK(S): **RESEARCH**

Thomas Fabian, *Underwriters Laboratories, Inc.*

Upholstered furniture has been one of the leading causes of fire-related injuries and fatalities in home structure fires for many years. Find out about an investigation that focused on the use of commercially available fire barriers and fire retardant foams in upholstered furniture to retard and/or reduce the fire growth rate resulting from exposure to small open flames. Combustibility data was collected for material-level tests, furniture mock-up tests, and full-size chair and sofa furniture tests. Results were analyzed in the context of room flashover conditions.

M52 2:45 PM – 3:45 PM

Renewable Energy Requirements in the 2011 NEC®

TRACK(S): **ELECTRICAL**

GREEN (1 GBCI CE hour)

Mark Ode, *UL University*

This session will provide you with an overview of the electrical requirements of Articles 690 on Photovoltaics, 625 for Electric Vehicles, and 694 for Wind Turbines. The 2011 NEC requires that only qualified personnel install photovoltaic and wind power installations. Learn more about calculations, overcurrent protection requirements, and overcurrent protection device location installations for photovoltaics, electric vehicle charging stations, and wind generators.

M53 2:45 PM – 3:45 PM

Using Social Media to Expand Your Safety Message Outreach

TRACK(S): **FIRE & EMERGENCY SERVICES**
PUBLIC EDUCATION

Lorraine Carli and **Mike Hazell**, *NFPA*

Fire departments and others interested in educating the public about how to keep safe are using social media (Facebook, Twitter, blogs, etc.) to help reach new audiences. But what's the best way to harness and take advantage of these online tools? This session will highlight some of the best examples of safety education social media efforts, tips on getting started, and our "Top Ten" most important techniques on using social media to your fullest advantage.

M55 2:45 PM – 3:45 PM

NFPA and APCO: Building a Better Future for Public Safety Personnel

TRACK(S): **FIRE & EMERGENCY SERVICES**

Amanda Byrd, *APCO International*; **Kendall Holland**, *NFPA*

This session will review the current edition of *NFPA 1061: Standard for Professional Qualifications for Public Safety Telecommunicator* and compare it to what will be added to the next edition in 2012. You

will hear how the JPRs are developed and learn about the many new requirements that have been added to the new edition to reflect the collaborative effort between the NFPA and APCO. This joint effort will enable someone certified to *NFPA 1061* to be trained to the many relevant APCO training standards.

M60 4:15 PM – 5:15 PM

Developing and Maintaining a Comprehensive Medical Gas System Operation & Management Program

TRACK(S): **CODES & STANDARDS**

Jonathan Willard, *Certified Medical Gas Services*

An overview of a comprehensive medical gas systems operation and management program covering the following areas: regulatory overview; medical gas systems surveys; code compliance assessments and risk analysis; activities schedules; policies and procedures; qualification standards; personnel training programs; and ensuring patient safety.

M61 4:15 PM – 5:15 PM

NFPA 72®–2010, Chapter 24 — Emergency Radio Communications Systems: Developing the Requirement Specific to the Needs of Your AHJ

TRACK(S): **DETECTION & NOTIFICATION**

Jack Daniel, *Jack Daniel Company*; **Kevin Persing**, *Axell Wireless*

This class will help define and establish the specific needs of both the Authority Having Jurisdiction and integrator qualifiers to comply to the new Chapter 24 requirements. This will define the key items needed for integrator compliance. This class will provide CDs with a copy of the presentation and editable "fill in the blank" documents.

M62 4:15 PM – 5:15 PM

2011 Edition of NFPA 96: An Update on Commercial Cooking

TRACK(S): **FIRE SUPPRESSION**

R.T. Leicht, *Delaware State Fire Marshal's Office*

The latest edition of the NFPA standard that addresses protection of commercial cooking has been approved by the Standards Council. This session will help bring attendees up to speed with this latest edition.

M63 4:15 PM – 5:15 PM

Evacuation Planning Awareness

TRACK(S): **BUILDING & LIFE SAFETY**

EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY

Jill Glanz and **Matthew Mertens**, *North Shore Fire Department*

Our goal is the participants of this session will be able to utilize the suggestions and interactive discussion to assist their community, local jurisdiction, or business in the development of comprehensive

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emergency plans. Your participation and questions are encouraged and welcomed. We will focus on some of our experiences when developing or expanding upon emergency evacuation plans and the considerations that should be applied to various occupancy use groups such as schools, businesses, large mercantile, and residential. We will provide an overview of items we suggest you consider during the emergency planning and implementation process. One tool we will encourage you to incorporate in your process is a “mock incident or round table exercise.”

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M64 4:15 PM – 5:15 PM

Fire Safety Research: Amsterdam’s Cross Tower Building

TRACK(S): **FIRE SUPPRESSION**

Tom de Nooij, *ALFireE, Marsh Risk Consulting BV*

There are three key issues to be considered in designing a comprehensive fire safety design concept. These three components include traditional aspects of both life safety and asset protection, plus the addition of possible future firefighting efforts. Facilitating firefighting in design is a new and innovative component and its successful implementation and actions depend on the two traditional components of life safety and asset protection and vice-versa. This has a direct bearing and influence on the success of any future design. You will hear about research results, evidence, and the rating of the relative importance of all the prevention equipment and safeguards commonly used. In particular, the overwhelming significance of sprinklers to this concept will be discussed.

M65 4:15 PM – 5:15 PM

NFPA 110/111: Proposals for the 2013 Editions

TRACK(S): **ELECTRICAL**

David Stymiest, *Smith Seckman Reid, Inc.*

Given by the chairman of the NFPA 110/111 Technical Committee on Emergency Power Supplies, this session will discuss proposals for *NFPA 110–2013* and *NFPA 111–2013*, along with their submitters’ rationales. Technical committee decisions on the proposals will also be covered along with their justifications. Proposals for 110 and 111 and the TC actions taken on them will be in the public review stage during this conference, and this session is intended to facilitate public input and debate on these important emergency power supply systems and SEPSSs. The speaker, an acknowledged industry expert on emergency power systems, will also review emergency power testing and maintenance issues and their impact on operational reliability.

M66 4:15 PM – 5:15 PM

A Critical Review on the Estimation Methods for the Flammability of a Mixture

TRACK(S): **FIRE PROTECTION ENGINEERING
LOSS CONTROL/PREVENTION**

Tingguang Ma and **Qingsheng Wang**, *Oklahoma State University*

Numerous explosion accidents, such as the Kleen Energy Power Plant (February 7, 2010) and the BP Rig Explosion (April 20, 2010), constantly remind us of the importance of the flammability limits for a mixture. However, our only tool, Le Chatelier’s Rule, is not applicable when an inert is involved. This session will review the thermal balance at the critical flammability limits, screen various correlations for estimating flammability, and explore universal methods for dealing with a flammable mixture. These methods are designed to solve the following flammability problems: 1) Estimating the flammability limits of an unknown fuel; 2) Estimating the flammability limits of a flammable mixture; and 3) Estimating the flammability limits of a flammable mixture with diluents.

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M67 4:15 PM – 5:15 PM

Reinvigorating Electrical Safety

TRACK(S): **ELECTRICAL**

Brett Brenner, *Electrical Safety Foundation International*

As our lives evolve to include more advanced technologies, our reliance on electricity continues to grow. Increased electricity usage translates to an increased potential for electrical fires and accidents. The mission of the Electrical Safety Foundation International (ESFI) is to advocate electrical safety in order to reduce electrically related fatalities, injuries, and property loss. ESFI has recently reevaluated the way electrical safety awareness materials have historically been presented. New materials provide a dynamic new approach to learning through the use of tools such as virtual simulations and interactive, web-based activities. Other advancements include free downloads and internet viewing, which allow for more widespread use without the costs associated with traditional print materials. Learn about all the electrical safety awareness resources available from ESFI.

M68 4:15 PM – 5:15 PM

My Child Knows Better — Exploring Parental Myths

TRACK(S): **PUBLIC EDUCATION**

Don Porth, *SOS Fires: Youth Intervention Programs*

This session will explore the common misconceptions parents have about fire setting behavior and help the interventionist understand how to overcome these during an educational intervention. Parents and caregivers are a critical element in the chain of intervention and this course will provide understanding and skills to improve intervention practices.

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M69 4:15 PM – 5:15 PM

RENI National Statistics System in Argentina

TRACK(S): **RESEARCH**

Nestor Sposito, *Dow Argentina*

The session will explain how the FIRTS project in Argentina relates local fire and other incident reports into a national statistical database. The project, with the support and sponsorship of NFPA, was developed with a multi-stakeholder group, and integrated by NFPA Argentina Chapter, National Technological University, and National Council Voluntary Firefighter Association. This paper will show the scope of the project, methodology applied, and challenges and results. We will analyze the opportunities to leverage this experience to other Latin American countries.

SPONSORED BY THE LATIN AMERICAN SECTION

M70 4:15 PM – 5:15 PM

NFPA 1124 — Application to Consumer Fireworks Retail Sales Facilities

TRACK(S): **CODES & STANDARDS**

James Lathrop, *Koffel Associates, Inc.*

This session will provide an introduction to how NFPA 1124 applies to facilities where the retail sale of consumer fireworks is conducted. It will discuss the organization of the requirements and give you an overview of the applicable requirements.

M71 4:15 PM – 5:15 PM

Performance-Based Design of Smoke Control Systems Using FDS

TRACK(S): **BUILDING & LIFE SAFETY**
CODES & STANDARDS

Nathan Birmingham, *Rolf Jensen and Associates*

The prescriptive code requirements for atrium smoke control systems are not always appropriate, depending on atria geometry. Designers often turn to computational fluid dynamic (CFD) fire models to assist in their design. You will learn about the objectives, methodology, limitations, and key assumptions associated with designing a smoke control system to meet a set of performance objectives described in NFPA 92B.

M72 4:15 PM – 5:15 PM

Fire Protection Challenges in Data Centers

TRACK(S): **FIRE SUPPRESSION**
DETECTION & NOTIFICATION
FIRE PROTECTION ENGINEERING

Ralph Transue, *Rolf Jensen & Associates, Inc.*; **David Quirk**, *Verizon*

This session reviews the results of The Fire Protection Research Foundation's workshop on fire suppression and detection challenges for data centers.

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M73 4:15 PM – 5:15 PM

Report of U.S. National Electric Vehicle Safety Standards Summit

TRACK(S): **ELECTRICAL**
FIRE & EMERGENCY SERVICES
GREEN (1 GBCI CE hour)

Casey Grant, *Fire Protection Research Foundation*

This session provides an overview of the U.S. National Electric Vehicle Safety Standards Summit held in Detroit, Michigan, in October 2010 and co-hosted by NFPA and SAE. The purpose of this critical event was to develop an action plan for the safe implementation of electric vehicles using safety standards. The focus was on identifying the applicable fire and electrical safety codes and standards, identifying knowledge gaps, and clarifying the path forward to address these gaps. With a focus on the needs of vehicles, the built infrastructure and emergency responders, the Summit identified key areas that require further attention. During this session you will learn about these key areas, which include battery technology (both on and off the vehicle), charging station interface, permitting and inspection, training and education, vehicle features that address concerns of emergency responders, telematics, and aftermarket vehicles/components.

M74 4:15 PM – 5:15 PM

Social Media Open Forum

TRACK(S): **PUBLIC EDUCATION**

Tod Aubin, *Prepare4*; **Lorraine Carli** and **Michael Hazell**, *NFPA*; **Ed Comeau**, *Center for Campus Fire Safety*; **Bill Delaney**, *Montgomery County Fire Rescue*; **Michael Rupert**, *Department of Consumer and Regulatory Affairs*

Join the social media discussion. This session, moderated by Lorraine Carli, NFPA's Vice President-Communications, will provide you with practical suggestions and tips on creating and maintaining a social media presence. Panel members will provide brief overviews of their experiences and then the floor will be open to questions and a group discussion to share ideas and lessons learned from the audience.

CEUs – Continuing education units (CEUs) will be awarded for all education sessions, except those marked with an asterisk (*). You will be awarded 0.1 CEU for a one-hour session, 0.2 CEUs for a 2-hour session, etc. Full participation in a session is required for CEU credit.



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Tuesday, June 14, 2011

T01 8:00 AM – 9:00 AM

Autism Awareness for Fire and Life Safety Education

TRACK(S): **FIRE & EMERGENCY SERVICES**
PUBLIC EDUCATION

William Cannata, Jr., *Autism and Law Enforcement Education Coalition*

This workshop will provide teachers and first responders with an overview of Autism Spectrum Disorder (ASD), growth rates, theories, common characteristics, effective communication methods, and some practical skills on how to effectively interact and teach this audience. Captain Cannata will provide information on how first responders can recognize an individual with ASD and discuss how actual incidents were handled. Captain Cannata will also discuss the unique learning styles of children with ASD, common components of effective teaching programs, and how to use these techniques to teach safety skills to children with ASD.

T02 8:00 AM – 9:00 AM

Validation of Fire Loads Survey Methodologies Used for Structural Fire Protection Design

TRACK(S): **RESEARCH**

James Eduful and **Ehab Zalok**, *Carleton University*

The use of engineered fire protection designs for buildings is becoming more acceptable in many countries with the introduction of performance-based codes. The increasing use of engineered solutions has resulted in the need to identify and characterize design fires for various buildings. This creates the need to conduct fire load surveys. The critical concern is how to identify the uncertainties in the fire loads data that resulted from different fire load survey methodologies. You will learn about a report on research findings aimed at establishing a structured approach to validate the fire load survey methodology proposed in the *NFPA 557* draft standard, and to also enhance and develop guidance on means to calibrate the results of fire load data surveys developed using various other methodologies.

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T03 8:00 AM – 9:00 AM

Smart Grid and NFPA Electrical Safety Codes and Standards

TRACK(S): **ELECTRICAL**
RESEARCH

Frederick Mowrer and **Lonny Simonian**, *California Polytechnic State University*

NIST and other government agencies are undertaking a comprehensive series of programs to develop technology and information to enable the rapid transition to the next generation of power distribution through the Smart Grid initiative. This

transition has major impacts for the safety of the built infrastructure as it interfaces with the grid through energy storage systems, photovoltaic's, metering and control systems, etc. This presentation will review a Fire Protection Research Foundation study which is designed to provide information to the National Electrical Code Making Panels and other NFPA Technical Committees on this topic. Hear about emerging Smart Grid technologies and an assessment of the impacts for NFPA codes and standards.

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T04 8:00 AM – 9:00 AM

Barriers and Incentives Related to the Installation of Home Fire Sprinklers

TRACK(S): **GREEN (1 GBCI CE hour)**
RESEARCH

Kathleen Almand and **Jonathan Hart**, *Fire Protection Research Foundation*; **Maria Figueroa**, *NFPA*

Find out about the results of two Fire Protection Research Foundation projects related to community-based barriers and incentives for the installation of home fire sprinklers. The objective of the first study was to identify, characterize, and estimate the approximate value of sprinkler system incentives that are in place in various communities in the United States. A wide variety of incentives, such as builder credits, reduced property taxes, and the ability to use narrower roads, were identified in 16 communities and a financial value assigned to them. The second study looked at a specific issue that has been a barrier to the installation of home fire sprinklers — the concerns from water utilities regarding water usage during a fire and associated performance of water meters. Water usage estimates in home fires were collected from selected fire departments and laboratory testing was conducted on water meter performance.

SPONSORED BY THE ARCHITECTS, ENGINEERS, AND BUILDING OFFICIALS SECTION AND THE FIRE PROTECTION RESEARCH FOUNDATION

T05 8:00 AM – 9:00 AM

Stress and Heart Disease in Firefighters: An "Athletic" Approach to Prevention

TRACK(S): **FIRE & EMERGENCY SERVICES**

Michael Hamrock, *Boston Fire Department*

Acute and chronic exposures to heat, smoke, toxins, sleep deprivation, suffering and traumatic events make firefighters particularly vulnerable to heart attacks or "acute coronary syndromes." Every three weeks a Boston firefighter suffers an acute coronary event. This session will review the unique physical, chemical, and mental stresses firefighters face that put them at high risk for cardiovascular disease. It will focus on pertinent case studies in a "lessons learned" approach with the goal of developing effective prevention strategies to reduce cardiovascular disease in the fire service. A wellness program that incorporates the ideas and principles that "firefighters are athletes" will be discussed in detail as a novel approach to preventing heart attacks in firefighters.

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T06 8:00 AM – 9:00 AM

Building Information Modeling for the Fire Protection Engineer

TRACK(S): **FIRE PROTECTION ENGINEERING**

Robin Zevotek, *C&S Engineers*

As engineering progresses forward with Building Information Modeling (BIM) design, fire protection engineers are being driven into the realm of three-dimensional drafting and design. It's time to make the jump from utilizing a 3D program and creating a 2D plan to BIM fire protection design. This session will present an overview of BIM design and how it can relate to fire protection engineering with examples of specific BIM platforms and their use for fire protection design.

T07 8:00 AM – 9:00 AM

Commissioning and Integrated Testing of Fire/Life Safety Systems — An AHJ Perspective

TRACK(S): **CODES & STANDARDS**

DETECTION & NOTIFICATION

FIRE SUPPRESSION

Dana Haagensen, *Massachusetts Department of Fire Services*

This session will provide the perspective of an Authority Having Jurisdiction on current industry practices for the commissioning and integrated testing of fire and life safety systems. You will hear about the concerns of a fire code official that arose during past projects. The discussion will also include a review of the provisions of *NFPA 3: Recommended Practice on Commissioning and Integrated Testing of Fire Protection and Life Safety Systems*, which is a new document up for adoption at this year's NFPA Technical Meeting (June 2011).

T08 8:00 AM – 9:00 AM

Fire and Explosion Incidents Involving the Return of Filtered Air to a Manufacturing Facility

TRACK(S): **FIRE PROTECTION ENGINEERING**

LOSS CONTROL/PREVENTION

Bob Zalosh, *Firexplo*

Filters to absorb combustible particulates and vapors are used in numerous manufacturing facilities. The clean air from many of these filters is often returned to the building. When a fire or deflagration occurs in the filter/collector, burning particulates and incomplete combustion products are also returned to the workplace. This session describes incidents where this has occurred and offers guidance on how to deal with this hazard.

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T09 8:00 AM – 9:00 AM

Emergency Message Intelligibility — A Review of Design Strategies in Achieving What Is Required by Code and Standard

TRACK(S): **DETECTION & NOTIFICATION**

FIRE PROTECTION ENGINEERING

David Sylvester, *Seneca College & Morrison Hershfield*

Voice messages are generally accepted as being superior to conventional evacuation tones as a means of notifying building occupants of an emergency. Methods to determine speech intelligibility are now readily available. Designers are mindful of the fact that leveraging new technology, while mobile, and in the building's environment, is now easier than ever. With mass notification now coming into focus, the need for providing intelligible voice design is a priority for this industry. This session will detail intelligibility design, use of geospatial information systems for conducting intelligibility analytics, computer modeling to determine the common intelligibility scale, and speaker placement techniques such as edge-to-edge layouts.

SPONSORED BY THE SOCIETY OF FIRE PROTECTION ENGINEERS

T10 8:00 AM – 9:00 AM

Fighting Fires with Facts: It's Time for the Fire and Emergency Services to Open Its Eyes — Information Sharing via NFIRS

TRACK(S): **FIRE & EMERGENCY SERVICES**

Marion Long, *United States Fire Administration*

For the fire and emergency services, closing its eyes is symbolic of shutting out other departments and users of fire data from using the department's incident data. It prevents departments from seeing and using data from more than 30,000 fire departments in the United States. When the fire service's eyes are open, information sharing begins. In our ever-changing world, the fire service's first line of defense is timely, accurate information that is shared, integrated, analyzed, and acted upon quickly and effectively. The National Fire Incident Reporting System (NFIRS) is the fire service's portal for information sharing. First, the fire service's eyes must be open. This session teaches you the steps to good incident information sharing within the fire service.

T11 8:00 AM – 9:00 AM

Occupancy and Commodity Classifications for NFPA 13, Sprinkler System Design

TRACK(S): **FIRE SUPPRESSION**

Robert Caputo, *Fire & Life Safety America*

The determination of occupancy use groups and commodity classifications are the first step in proper sprinkler system design. This step-by-step review and primer will assist designers and plan reviewers in Chapter 5 requirements. Secondly, you'll participate in an examination of the impact of occupancy/commodities selection as they relate to system design criteria, including the selection of sprinkler types and sprinkler spacing rules.



T12 8:00 AM – 9:00 AM

Threat Assessment for Emergency Planning

TRACK(S): **EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY**

Kenneth Willette and **Orlando P. Hernandez**, NFPA

The foundation of any effective emergency plan is a thorough threat assessment. An understanding of the things that might create emergencies provides insight into what we need to be prepared for in our organizations. This critical first step applies to all levels of plans from simple evacuation plans up through comprehensive continuity of operations plans. This session will look at threats and the threat assessment process. We will discuss how to use the process in your own organization. Group participation will be used to demonstrate a portion of the threat assessment process.

T17 9:30 AM – 10:30 AM

Heliport Design & Safety I/A/W NFPA 418

TRACK(S): **BUILDING & LIFE SAFETY**
CODES & STANDARDS

Rex Alexander, Omniflight Helicopters; **Raymond A. Syms**, Raymond A. Syms & Associates

The 2011 edition of *NFPA 418: Standard for Heliports* now incorporates, by reference, aeronautical and safety portions of the FAA Heliport Design guidelines. This session will explain the FAA terminology and basic heliport design criteria. PowerPoint and video will be used to further the discussion on general design elements of heliports and will include examples of various types and sizes of heliports. A review of common hazards found at heliports will be presented, as will a discussion on normal and emergency operations.

SPONSORED BY THE AVIATION SECTION

T18 9:30 AM – 10:30 AM

Get Real Using NFPA's Emergency Evacuation Planning Guide for People with Disabilities

TRACK(S): **BUILDING & LIFE SAFETY**
EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY

Allan Fraser, NFPA

Up to 50 percent of your community may need assistance in an emergency with 20 percent likely to have disabilities affecting their ability to understand preparedness information, hear alerts, and get out of their building. In 2007, NFPA published the first step-by-step guide to preparing a personal emergency evacuation plan for people with disabilities from any building. This session will look at development of personal evacuation plans using the "Guide" and how to practice them.

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T19 9:30 AM – 10:30 AM

Fire Pump Testing: Does Your Test Meet NFPA 25–2011?

TRACK(S): **FIRE SUPPRESSION**

Thomas LaCorte, Chubb Insurance

NFPA 25 has specific requirements for weekly and annual fire pump testing. Are you or your contractor conducting the required tests as intended? This seminar will review the do's and don'ts of fire pump testing including: weekly and annual testing, the proper use and setup of fire pump test equipment and procedures, safety concerns, etc. You will learn how to evaluate annual fire pump test results including graphing and analyzing the pump and electric motor performance. Fire pump controllers will be reviewed including the testing required if an emergency generator is connected to the fire pump. The effect of a pressure relief valve on test results and when it should be taken out of service during a test will be also discussed.

T20 9:30 AM – 10:30 AM

Safety Evaluation of Nonmetallic Cable Damaged During Installation

TRACK(S): **ELECTRICAL**
RESEARCH

Paul Brazis, Jr., and **Fan He**, Underwriters Laboratories, Inc.

Nonmetallic (NM) cable is the most common electrical wiring method used in residential construction, and is expected to be in service for many decades buried inside walls, floors, and ceilings. Learn about the lack of understanding that currently exists about the specific mechanisms and probability of latent electrical arcing and/or fire if cabling is damaged during installation. Such damage may include over-stapling, excessive bending, crushing, and abrasion. This abuse may be exacerbated by aging of the wire, with problems appearing only years after damage had occurred. UL has initiated a study into the effect of NM cable damage and subsequent mechanical, chemical, and/or electrical degradation over time. This session will focus on a statistical discussion of the initial effects of various damage scenarios to NM cable during installation.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

T21 9:30 AM – 10:30 AM

Photovoltaic Systems — A 2011 NEC®-Compliant Installation

TRACK(S): **CODES & STANDARDS**
GREEN (1 GBCI CE hour)
ELECTRICAL

Chad Kennedy, Schneider Electric/Square D

The growth of PV installations has resulted in new code requirements and electrical circuit protection of these systems. The program will focus on the code requirements found in Article 690 of the *National Electrical Code® (NFPA 70®)* along with building code requirements specific to PV Systems in order to ensure a safe and reliable installation. The principles covered will be demonstrated with a step-by-step case study of an actual PV System installation.

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T22 9:30 AM – 10:30 AM

Advancements in Aerosol Packaging and Associated Fire Protection Strategies

TRACK(S): **LOSS CONTROL/PREVENTION RESEARCH**

Martin Pabich, *Underwriters Laboratories, Inc.*

According to the *NFPA 30B: Code for the Manufacture and Storage of Aerosol Products*, here in the U.S. we require that aerosol products be wrapped in cardboard packaging. Not many know that this unique requirement is to allow a fire to develop using the cardboard as fuel, so the sprinkler system would operate and provide cooling water to the metal cans, prior to violent rupture. For the most part, plastic containers do not provide the same structural integrity as metal containers, especially under high heat conditions. Plastic container failure under fire conditions is a foregone conclusion. Research into how to handle this situation is multifaceted and ongoing. This session will provide you with the latest updates regarding the use of plastic containers for aerosol products.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

T23 9:30 AM – 10:30 AM

Evaluation of Health Care Operating Rooms as Wet/Dry Locations

TRACK(S): **CODES & STANDARDS ELECTRICAL**

Melissa Chernovsky, *Exponent, Inc.*

This Fire Protection Research Foundation study addresses electrical requirements in hospital operating rooms. The current 2005 edition of *NFPA 99* requires the governing body of the facility to determine if operating rooms are "wet locations" and therefore require special protection against electrical shock. However, there are two opposing schools of thought on establishing this designation requirement, with the debate attempting to balance the need to provide a safe environment for patients and operating room personnel, while at the same time providing a risk-based solution and not over-designing the electrical distribution system. Learn more about defining and analyzing the hazards associated with hospital operating rooms to clarify the classification type (i.e., wet location versus dry location) of their electrical environments.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

T24 9:30 AM – 10:30 AM

Characterizing the High-Temperature Performance of SCBA Facepieces

TRACK(S): **FIRE & EMERGENCY SERVICES RESEARCH**

Nelson Bryner, *NIST*

The performance of the facepiece of self-contained breathing apparatus that may be experienced by first responders during high-heat flux and high-temperature conditions was characterized in a series of experiments. Melted SCBA lenses have been identified as a contributing factor in firefighter fatalities and injuries. In terms of

thermal performance, the SCBA lens is considered to be the weakest component of a firefighter's protective ensemble. Three sets of high-heat exposure experiments were performed, at the lab scale, at full scale, and in the field. The lab scale experiments in front of a radiant panel provided repeatability and control, while the field experiments in townhouse burns using furnishings as fuel, were more realistic. The full-scale experiments in a room with a natural gas burner were somewhat realistic, while retaining some repeatability. Find out more about the information learned regarding facepiece thermal performance in these experiments.

SPONSORED BY THE FIRE PROTECTION RESEARCH FOUNDATION

T25 9:30 AM – 10:30 AM

We Have a Residential Sprinkler Code Adoption or Ordinance — Now What?

TRACK(S): **BUILDING & LIFE SAFETY FIRE SUPPRESSION**

Jim Narva, *National Association of State Fire Marshals*;
Lane Wintermute, *Residential Fire Safety Institute*

The increasingly common adoption of local residential sprinkler requirements has revealed a new challenge for some jurisdictions: Once adopted, what is the most effective and efficient way to put that code adoption into practice? We will present an established process and model guidance to ensure consistent implementation and administration of residential sprinkler requirements at the local level based on the experiences and practices of jurisdictions throughout the U.S. that have accomplished this successfully. Successful accomplishment of this process will help to ensure that the residential sprinkler systems operate properly when a fire occurs.

T26 9:30 AM – 10:30 AM

How to Meet the Educational Challenges of Large Cities

TRACK(S): **PUBLIC EDUCATION**

Johnny Brewington, *Cleveland Division of Fire*; **Larry Gray**, *Cleveland Fire Department*; **David Sawyer**, *Columbus Division of Fire*; **Derrick Sawyer**, *Philadelphia Fire Department*; **John Verbeek**, *Hamilton Emergency Services*

Large city fire departments have particular outreach challenges that include conducting fire prevention programs with limited resources; staffing smoke alarm installation programs; and working in high-crime areas. Also, leveraging relationships with large city-wide institutions serving preschoolers, school-age children, or older adults; reaching multi-cultural communities in their own languages; and getting community members to focus on fire safety when other issues may seem more compelling are all additional challenges. Come hear representatives from four cities discuss how they are addressing those challenges through their public education and outreach programs. Fire departments from Cleveland, Ohio; Columbus, Ohio; Philadelphia, Pennsylvania; and Hamilton, Ontario were all a part of implementations sponsored by NFPA as part of the Urban Fire Safety Project in 2008 and 2009.

SPONSORED BY THE EDUCATION SECTION, PUBLIC EDUCATION DIV.

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T27 9:30 AM – 10:30 AM

Litigation on Fire: NFPA 921 in the Eyes of the Judicial System

TRACK(S): **LOSS CONTROL/PREVENTION**

Brian Benoit, *Wiedner & McAuliffe, Ltd.*; **David Smith**, *Smith & Associates*

The use of *NFPA 921* can ensure that the proper methods are utilized in investigating the origin and cause of a fire. Attorneys and courts are becoming increasingly aware and stringent on the need for scientifically reliable investigations in fire cases. This session will show you how to use *NFPA 921* to facilitate an effective investigation, absent any issues that may be scrutinized in litigation.

T28 9:30 AM – 10:30 AM

Smoke Alarm Research and Certifications: A UL Perspective

TRACK(S): **DETECTION & NOTIFICATION RESEARCH**

Thomas Fabian and **Howard Hopper**, *Underwriters Laboratories, Inc.*

Smoke alarms play a critical part in protecting lives in residential dwelling units, and many recent research efforts have been undertaken to investigate issues related to smoke alarm performance in the modern household environment.

SPONSORED BY THE INTERNATIONAL FIRE MARSHALS ASSOCIATION

Spotlight Sessions

T32 11:00 AM – 12:00 PM

Strengthening the Impact of Fire and Life Safety Messages on Children

TRACK(S): **PUBLIC EDUCATION**

Dina Borzekowski, **Andrea Gielen** and **Rajiv Rimal**, *Johns Hopkins University*

NFPA received a fire prevention grant from the Department of Homeland Security to examine the impact of positively framed fire and life safety messages on children ages 4 through 9. We looked at the difference between positively and negatively framed messages on children's attention, comprehension, and behavioral intention. A total of 640 children and their parents participated in the project. Results of the study will be presented and attendees will receive an important tool to evaluate fire and life safety materials and provide guidance on creating educational materials.

SPONSORED BY THE PUBLIC EDUCATION DIVISION

T34 11:00 AM – 12:00 PM

The High Cost of Fashion at the Triangle Shirtwaist Factory

TRACK(S): **BUILDING & LIFE SAFETY CODES & STANDARDS**

Casey Grant, *Fire Protection Research Foundation*

The tragic fire at the Triangle Shirtwaist Company in New York City on 25 March 1911 resulted in 146 workers losing their lives. Yet the changes that resulted from this single large life loss disaster were profound, and from today's centennial perspective we clearly see this as a key turning point in our forward progress as a civilization. The Triangle Shirtwaist Fire resulted in significant measurable changes, not only in advances with fire protection codes and standards, but also in other areas such as the labor movement. The Triangle Fire is the cornerstone event for a dramatic shift in how we as a civilization value human life, and the genesis of *NFPA 101®: Life Safety Code®* is traced directly to this single fire.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

T33 11:00 AM – 12:00 PM

The Relationship Between the OSHA Electrical Regulations and NFPA 70E®

TRACK(S): **CODES & STANDARDS ELECTRICAL**

Kenneth Mastrullo, *OSHA*

This session will provide you with an overview of electrical safety in the workplace from both a compliance and user perspective. The subject matter to be covered includes hazard recognition, de-energized work, working on live parts, lockout/tagout, voltage testing, personal protective equipment, and training requirements. The session will also address the correlation between the OSHA regulations for general industry and the requirements in *NFPA 70E*. The information provided in this session will assist employers in converting the OSHA electrical safety-related work practices into comprehensive protective strategies for workers.

SPONSORED BY THE INDUSTRIAL FIRE PROTECTION SECTION

T35 11:00 AM – 12:45 PM

Antifreeze Solutions and Automatic Fire Sprinkler Systems — Panel Discussion

TRACK(S): **FIRE SUPPRESSION CODES & STANDARDS**

Christian Dubay (*Moderator*), *Vice President and Chief Engineer, NFPA*; **Jim Lake**, *National Fire Sprinkler Association*; **Steven Wolin**, *Code Consultants, Inc.*; **Matt Klaus**, *NFPA*

This panel discussion will provide a detailed review of the recent issues surrounding the use of antifreeze solutions for freeze protection in automatic fire sprinkler systems and how recent fire incidents have brought this issue to the forefront of automatic fire sprinkler standards. The panel discussion will review the history of antifreeze solution within codes and standards, recently completed research, the actions of NFPA, and the current status of the codes and standards.

Education Sessions by Track

as of February 18, 2011

Get up-to-date conference details, listen to podcasts and view images from last year's conference in Las Vegas by visiting our blog: nfpa.typepad.com/conference

Use these 12 convenient tracks as a guide for planning your session attendance.

This year's conference offers more than 130 educational sessions divided into 12 tracks to help you find the sessions that best meet your professional needs. Determining your attendance schedule in advance is the best way to maximize the value of the time you have to spend.

BUILDING & LIFE SAFETY — page 25

Technologies, best practices, and statistical data needed by designers, engineers, and building and fire officials responsible for plans review, inspections, and other building-related tasks.

CODES & STANDARDS — page 25

Expert guidance on the practical application of NFPA codes and standards, as well as information on recent updates and changes.

DETECTION & NOTIFICATION — page 26

Code requirements and design issues affecting the application of new technologies in alarm and signaling systems, and the impact of maintenance on systems performance.

ELECTRICAL — page 26

Best practices in the electrical industry and how they are influenced by new electrical design issues, successful maintenance programs, effective inspection techniques, and safety programs.

EMERGENCY PREPAREDNESS/BUSINESS CONTINUITY — page 27

The latest methodologies for accurately assessing risks and consequences, emergency preparedness, contingency planning, and incident management and recovery capabilities.

FIRE & EMERGENCY SERVICES — page 27

A look at what's new in fire-fighting technology, safety and preparedness for first responders, incident command strategies, and fire prevention and inspection techniques.

FIRE PROTECTION ENGINEERING — page 27

Ideas for meeting fire protection challenges using computer modeling, field testing, post-incident analyses, and other methods for developing performance-based building solutions.



FIRE SUPPRESSION — page 28

The importance of proper design, installation, inspection, testing, maintenance, and plans review of sprinkler system effectiveness.

GREEN — page 28

How environmentally-friendly initiatives affect the design, maintenance, and testing of fire and life safety systems and components.



LOSS CONTROL/PREVENTION — page 29

Strategies for mitigating risk through accurate assessment of occupancy and commodity classification, enhanced reliability of fire protection systems, and other risk factors.

PUBLIC EDUCATION — page 29

New planning strategies and creative solutions for meeting the challenges of effective public fire and life safety education.

RESEARCH — page 30

The latest research on critical fire and life safety initiatives, including the reliability of emerging technologies.

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Building & Life Safety

SUNDAY, JUNE 12, 2011

S04 8:00 AM – 9:00 AM

Conflagration to Code: How Historic Building Fires Shaped Modern Codes

S21 9:30 AM – 10:30 AM

A History of Smoke Control Requirements in High-Rise Buildings

S44 11:00 AM – 12:00 PM

Full Building Evacuation Strategies: The Precedents Set Globally

S52 11:00 AM – 12:00 PM

How Fire History Has Shaped the Fire Protection Environment of Today

MONDAY, JUNE 13, 2011

M14 8:00 AM – 9:00 AM

Locating Fire-Resistance Designs Using New UL Online Application

M16 8:00 AM – 9:00 AM
Life Safety Code® for Health Care Occupancies *Cancelled*

M22 11:00 AM – 12:30 PM

Improving Stairway Usability and Safety to Enhance Life Safety

M23 11:00 AM – 12:30 PM

Life Safety Code® for Health Care Occupancies 2000 to 2012

M26 11:00 AM – 12:30 PM

Commissioning of Smoke Control Systems — A Multi-Discipline Approach

M63 4:15 PM – 5:15 PM

Evacuation Planning Awareness

M71 4:15 PM – 5:15 PM

Performance-Based Design of Smoke Control Systems Using FDS

TUESDAY, JUNE 14, 2011

T17 9:30 AM – 10:30 AM

Heliport Design & Safety I/A/W NFPA 418

T18 9:30 AM – 10:30 AM

Get Real Using NFPA's Emergency Evacuation Planning Guide for People with Disabilities

T25 9:30 AM – 10:30 AM

We Have a Residential Sprinkler Code Adoption or Ordinance — Now What?

T34 11:00 AM – 12:00 PM

The High Cost of Fashion at the Triangle Shirtwaist Factory

Codes & Standards

SUNDAY, JUNE 12, 2011

CLC 8:00 AM – 12:30 PM

Committee Leadership Conference

S03 8:00 AM – 9:00 AM

Proposed Changes to NFPA 720–2011

S04 8:00 AM – 9:00 AM

Conflagration to Code: How Historic Building Fires Shaped Modern Codes

S14 8:00 AM – 9:00 AM

Fire Prevention & Protection Guidance for Renewable Energy Industries — NFPA 850 Update

S21 9:30 AM – 10:30 AM

A History of Smoke Control Requirements in High-Rise Buildings

S24 9:30 AM – 10:30 AM

The 17 Mistakes Made in Emergency Plans — How to Avoid and Correct Them

S30 9:30 AM – 10:30 AM

Changes in the 2011 Edition of NFPA 79, Electrical Standard for Industrial Machinery

S33 9:30 AM – 10:30 AM

The Hazards of Combustible Metals — What You Don't Know May Injury or Kill Someone

S38 11:00 AM – 12:00 PM

Fire Cause Determination Using the Revised Chapter 18, NFPA 921

S45 11:00 AM – 12:00 PM

The 2012 Edition of NFPA 99

MONDAY, JUNE 13, 2011

M03 8:00 AM – 9:00 AM

Building Material Certification for Sustainability

M11 8:00 AM – 9:00 AM

Health Care Hot Topics and AHJ Interpretations

M13 8:00 AM – 9:00 AM

NFPA 13–2010 Edition Technical Changes for Storage Occupancies

M23 11:00 AM – 12:30 PM

Life Safety Code® for Health Care Occupancies 2000 to 2012

M32 11:00 AM – 2:30 PM

NFPA Combustible Dust Standards Update

M40 2:00 PM – 6:00 PM

NFPA Standards Forum

M47 2:45 PM – 3:45 PM

Review of Significant Gas Accidents

M60 4:15 PM – 5:15 PM

Developing and Maintaining a Comprehensive Medical Gas System Operation & Management Program

M70 4:15 PM – 5:15 PM

NFPA 1124 — Application to Consumer Fireworks Retail Sales Facilities

M71 4:15 PM – 5:15 PM

Performance-Based Design of Smoke Control Systems Using FDS

TUESDAY, JUNE 14, 2011

T07 8:00 AM – 9:00 AM

Commissioning and Integrated Testing of Fire/Life Safety Systems — An AHJ Perspective

T17 9:30 AM – 10:30 AM

Heliport Design & Safety I/A/W NFPA 418

T21 9:30 AM – 10:30 AM

Photovoltaic Systems — A 2011 NEC® Compliant Installation

T23 9:30 AM – 10:30 AM

Evaluation of Health Care Operating Rooms as Wet/Dry Locations

T33 11:00 AM – 12:00 PM

The Relationship between the OSHA Electrical Regulations and NFPA 70E®

T34 11:00 AM – 12:00 PM

The High Cost of Fashion at the Triangle Shirtwaist Factory

T35 11:00 AM – 12:45 PM

Antifreeze Solutions and Automatic Fire Sprinkler Systems — Panel Discussion

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Detection & Notification

SUNDAY, JUNE 12, 2011

S07 8:00 AM – 9:00 AM

Developing Emergency Communication Strategies for Buildings

S40 11:00 AM – 12:00 PM

Strategies and Tools for Planning, Design, and Use of Emergency Communications Systems

S43 11:00 AM – 12:00 PM

Smoke Detection in Computer Rooms and Data Centers

MONDAY, JUNE 13, 2011

M01 8:00 AM – 9:00 AM

Voice Intelligibility Requirements of the 2010 Edition of NFPA 72®

M15 8:00 AM – 9:00 AM

Understanding Risk Analysis Concepts and Their Requirements in NFPA 72®-2010 Edition

M26 11:00 AM – 12:30 PM

Commissioning of Smoke Control Systems — A Multi-Discipline Approach

M30 11:00 AM – 12:30 PM

The 2010 and 2013 National Fire Alarm and Signaling Code — A Panel Discussion of Strategic Changes and Possible New Material

M31 11:00 AM – 12:30 PM

The Relative Role of Smoke Detectors and Sprinklers in Providing Life Safety in Residential Occupancies

M46 2:45 PM – 3:45 PM

NFPA 3, Commissioning: What to Expect

M61 4:15 PM – 5:15 PM

NFPA 72 2010, Chapter 24 — Emergency Radio Communications Systems: Developing the Requirement Specific to the Needs of Your AHJ

M72 4:15 PM – 5:15 PM

Fire Protection Challenges in Data Centers

TUESDAY, JUNE 14, 2011

T07 8:00 AM – 9:00 AM

Commissioning and Integrated Testing of Fire/Life Safety Systems — An AHJ Perspective

T09 8:00 AM – 9:00 AM

Emergency Message Intelligibility — A Review of Design Strategies, in Achieving What Is Required by Code and Standard

T28 9:30 AM – 10:30 AM

Smoke Alarm Research and Certifications: A UL Perspective

Electrical

SUNDAY, JUNE 12, 2011

S12 8:00 AM – 9:00 AM

Using Infrared Thermography to Prevent Electrical Failures

S17 8:00 AM – 9:00 AM

Solar Photovoltaic Systems and the U.S. Regulatory Environment

S29 9:30 AM – 10:30 AM

EV Charging Systems and the 2011 NEC® Requirements — Be Ready!

S30 9:30 AM – 10:30 AM

Changes in the 2011 Edition of NFPA 79, Electrical Standard for Industrial Machinery

S50 11:00 AM – 12:00 PM

Electrical Grounding and Bonding Revisions in the 2011 NEC®

MONDAY, JUNE 13, 2011

M07 8:00 AM – 9:00 AM

Safety Programs, Safe Workers

M28 11:00 AM – 12:30 PM

New Requirements in the 2012 NFPA 70E®, Standard for Electrical Safety in the Workplace®

M52 2:45 PM – 3:45 PM

Renewable Energy Requirements in the 2011 NEC®

M65 4:15 PM – 5:15 PM

NFPA 110/111: Proposals for the 2013 Editions

M67 4:15 PM – 5:15 PM

Reinvigorating Electrical Safety

M73 4:15 PM – 5:15 PM

Report of U.S. National Electric Vehicle Safety Standards Summit

TUESDAY, JUNE 14, 2011

T03 8:00 AM – 9:00 AM

Smart Grid and NFPA Electrical Safety Codes and Standards

T20 9:30 AM – 10:30 AM

Safety Evaluation of Nonmetallic Cable Damaged During Installation

T21 9:30 AM – 10:30 AM

Photovoltaic Systems — A 2011 NEC® Compliant Installation

T23 9:30 AM – 10:30 AM

Evaluation of Health Care Operating Rooms as Wet/Dry Locations

T33 11:00 AM – 12:00 PM

The Relationship between the OSHA Electrical Regulations and NFPA 70E®

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Emergency Preparedness/ Business Continuity

SUNDAY, JUNE 12, 2011

S08 8:00 AM – 9:00 AM

NFPA 1600 — Business Continuity and Emergency Management: Partners in Preparedness and Response

S24 9:30 AM – 10:30 AM

The 17 Mistakes Made in Emergency Plans — How to Avoid and Correct Them

S40 11:00 AM – 12:00 PM

Strategies and Tools for Planning, Design, and Use of Emergency Communications Systems

MONDAY, JUNE 13, 2011

M02 8:00 AM – 9:00 AM

Safety and Industrial Hygiene Professionals: Critical Elements in Preparedness and Emergency Management

M21 11:00 AM – 12:00 PM

Dark Tide: The Great Boston Molasses Flood of 1919*

M25 11:00 AM – 12:30 PM

Flames in the W/UI: How Wildfire Mitigation Planning Can Minimize Risk to People and Property

M44 2:45 PM – 3:45 PM

Risk Assessment & Business Impact Analysis: A Foundation of the Emergency Management and Business Continuity Program

M63 4:15 PM – 5:15 PM

Evacuation Planning Awareness

TUESDAY, JUNE 14, 2011

T12 8:00 AM – 9:00 AM

Threat Assessment for Emergency Planning

T18 9:30 AM – 10:30 AM

Get Real Using NFPA's Emergency Evacuation Planning Guide for People with Disabilities

Fire & Emergency Services

SUNDAY, JUNE 12, 2011

S15 8:00 AM – 9:00 AM

Brush and Wildland Fires: The Surprising Facts You Need to Know

S20 9:30 AM – 10:30 AM

Developing Friction Loss Coefficients for Modern Fire Hose

S28 9:30 AM – 10:30 AM

Townhouse Fire Experiments

S48 11:00 AM – 12:00 PM

Updated FSRS to Be Deployed Countrywide

S51 11:00 AM – 12:30 PM

Firefighter Safety Considerations for Rooftop Photovoltaic (PV) System Installations

MONDAY, JUNE 13, 2011

M09 8:00 AM – 9:00 AM

Assessment of the Thermal Hazard from Fire Service Training Fires

M12 8:00 AM – 9:00 AM

Ambulance Crash Safety Research

M24 11:00 AM – 12:30 PM

Understanding the U.S. Firefighter Fatality Problem in 2010

M53 2:45 PM – 3:45 PM

Using Social Media to Expand Your Safety Message Outreach

M55 2:45 PM – 3:45 PM

NFPA and APCO: Building a Better Future for Public Safety Personnel

M73 4:15 PM – 5:15 PM

Report of U.S. National Electric Vehicle Safety Standards Summit

TUESDAY, JUNE 14, 2011

T01 8:00 AM – 9:00 AM

Autism Awareness for Fire and Life Safety Education

T05 8:00 AM – 9:00 AM

Stress and Heart Disease in Firefighters: An "Athletic" Approach to Prevention

T10 8:00 AM – 9:00 AM

Fighting Fires with Facts: It's Time for the Fire and Emergency Services to Open Its Eyes — Information Sharing via NFIRS

T24 9:30 AM – 10:30 AM

Characterizing the High-Temperature Performance of SCBA Facepieces

Fire Protection Engineering

SUNDAY, JUNE 12, 2011

S10 8:00 AM – 9:00 AM

Dust Explosions 101

S11 8:00 AM – 9:00 AM

Fire Performance Evaluation of Dry-Pipe Sprinkler Systems for Protection of High-Rack Storages of Class III Commodity Using K-25.2 Sprinklers

S23 9:30 AM – 10:30 AM

Evaluation of Extended Coverage (EC) Sprinklers for Nonstorage Applications

S25 9:30 AM – 10:30 AM

A Simplified Approach for Assessing Initial Fire Development and Spread

S32 9:30 AM – 10:30 AM

Liquid Fuel Fires: Fire Dynamics and Forensic Analysis

S43 11:00 AM – 12:00 PM

Smoke Detection in Computer Rooms and Data Centers

MONDAY, JUNE 13, 2011

M04 8:00 AM – 9:00 AM

Reconstructing the Sofa Super Store Fire — Understanding the Fire Dynamics

M06 8:00 AM – 9:00 AM

Proper Fire Protection for Unique Construction Features

M13 8:00 AM – 9:00 AM

NFPA 13–2010 Edition Technical Changes for Storage Occupancies

M30 11:00 AM – 12:00 PM

The 2010 and 2013 National Fire Alarm and Signaling Code — A Panel Discussion of Strategic Changes and Possible New Material

M43 2:45 PM – 3:45 PM

Residential Fire Tenability

M46 2:45 PM – 3:45 PM

NFPA 3, Commissioning: What to Expect

M66 4:15 PM – 5:15 PM

A Critical Review on the Estimation Methods for the Flammability of a Mixture

M72 4:15 PM – 5:15 PM

Fire Protection Challenges in Data Centers

continued on next page...

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as of February 18, 2011



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Fire Protection Engin. (cont'd)

TUESDAY, JUNE 14, 2011

T06 8:00 AM – 9:00 AM

Building Information Modeling for the Fire Protection Engineer

T08 8:00 AM – 9:00 AM

Fire and Explosion Incidents Involving the Return of Filtered Air to a Manufacturing Facility

T09 8:00 AM – 9:00 AM

Emergency Message Intelligibility — A Review of Design Strategies, in Achieving What Is Required by Code and Standard

Fire Suppression

SUNDAY, JUNE 12, 2011

S02 8:00 AM – 10:00 AM

NFPA 13R — Application, Use and Limitations — Panel Discussion

S05 8:00 AM – 9:00 AM

HVLS Fans and Sprinkler Operation: Results of a Three-Year Comprehensive Assessment of Performance

S06 8:00 AM – 9:00 AM

Hazard Analysis and Flammable Liquid Protection Coverage

S11 8:00 AM – 9:00 AM

Fire Performance Evaluation of Dry-Pipe Sprinkler Systems for Protection of High-Rack Storages of Class III Commodity Using K-25.2 Sprinklers

S22 9:30 AM – 10:30 AM

Reliability of Sprinkler Systems

S47 11:00 AM – 12:00 PM

Sprinkler Plan Review — Avoiding the Usual Mistakes

MONDAY, JUNE 13, 2011

M10 8:00 AM – 9:00 AM

Water Application Rates for Fixed Firefighting Systems in Road Tunnels

M31 11:00 AM – 12:30 PM

The Relative Role of Smoke Detectors and Sprinklers in Providing Life Safety in Residential Occupancies

M46 2:45 PM – 3:45 PM

NFPA 3, Commissioning: What to Expect

M49 2:45 PM – 3:45 PM

NFPA 25: Change is Good

M62 4:15 PM – 5:15 PM

2011 Edition of NFPA 96: An Update on Commercial Cooking

M64 4:15 PM – 5:15 PM

Fire Safety Research: Amsterdam's Cross Tower Building

M72 4:15 PM – 5:15 PM

Fire Protection Challenges in Data Centers

TUESDAY, JUNE 14, 2011

T07 8:00 AM – 9:00 AM

Commissioning and Integrated Testing of Fire/Life Safety Systems — An AHJ Perspective

T11 8:00 AM – 9:00 AM

Occupancy and Commodity Classifications for NFPA 13, Sprinkler System Design

T19 9:30 AM – 10:30 AM

Fire Pump Testing: Does Your Test Meet NFPA 25-2011?

T25 9:30 AM – 10:30 AM

We Have a Residential Sprinkler Code Adoption or Ordinance — Now What?

T35 11:00 AM – 12:45 PM

Antifreeze Solutions and Automatic Fire Sprinkler Systems — Panel Discussion

Green

SUNDAY, JUNE 12, 2011

S05 8:00 AM – 9:00 AM

HVLS Fans and Sprinkler Operation: Results of a Three-Year Comprehensive Assessment of Performance

S14 8:00 AM – 9:00 AM

Fire Prevention & Protection Guidance for Renewable Energy Industries — NFPA 850 Update

S17 8:00 AM – 9:00 AM

Solar Photovoltaic Systems and the U.S. Regulatory Environment

S29 9:30 AM – 10:30 AM

EV Charging Systems and the 2011 NEC® Requirements — Be Ready!

S51 11:00 AM – 12:30 PM

Firefighter Safety Considerations for Rooftop Photovoltaic (PV) System Installations

MONDAY, JUNE 13, 2011

M03 8:00 AM – 9:00 AM

Building Material Certification for Sustainability

M52 2:45 PM – 3:45 PM

Renewable Energy Requirements in the 2011 NEC®

M73 4:15 PM – 5:15 PM

Report of U.S. National Electric Vehicle Safety Standards Summit

TUESDAY, JUNE 14, 2011

T04 8:00 AM – 9:00 AM

Barriers and Incentives Related to the Installation of Home Fire Sprinklers

T21 9:30 AM – 10:30 AM

Photovoltaic Systems — A 2011 NEC® Compliant Installation

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Loss Control/Prevention

SUNDAY, JUNE 12, 2011

S09 8:00 AM – 9:00 AM

Protecting Scotland's Heritage: Managing the Contract

S10 8:00 AM – 9:00 AM

Dust Explosions 101

S12 8:00 AM – 9:00 AM

Using Infrared Thermography to Prevent Electrical Failures

S22 9:30 AM – 10:30 AM

Reliability of Sprinkler Systems

S26 9:30 AM – 10:30 AM

What You Can't See, Can Kill You: Properly Managing the Risks of Air and Nitrogen

S33 9:30 AM – 10:30 AM

The Hazards of Combustible Metals — What You Don't Know May Injury or Kill Someone

S46 11:00 AM – 12:00 PM

Natural Gas Piping and Purging: Safe Work Practices

S49 11:00 AM – 12:00 PM

Effect of Propylene Glycol/Water Solution on Suppression of Corrugated Cardboard Cartoned Commodities

MONDAY, JUNE 13, 2011

FP 9:30 AM – 10:30 AM

Lessons Learned Regarding Industrial Gas Safety Practices

M27 11:00 AM – 12:30 PM

Flammable and Combustible Liquids in Plastic Containers: Understanding the Code, Case Study Implementation, and New Research

M32 11:00 AM – 12:30 PM

NFPA Combustible Dust Standards Update

M47 2:45 PM – 3:45 PM

Review of Significant Gas Accidents

M48 2:45 PM – 3:45 PM

Investigation, Mitigation, Spoliation, Litigation and Compliance with NFPA 921: The Forensic and Legal Response to a Large Loss Fire

M49 2:45 PM – 3:45 PM

NFPA 25: Change is Good

M66 4:15 PM – 5:15 PM

A Critical Review on the Estimation Methods for the Flammability of a Mixture

TUESDAY, JUNE 14, 2011

T08 8:00 AM – 9:00 AM

Fire and Explosion Incidents Involving the Return of Filtered Air to a Manufacturing Facility

T22 9:30 AM – 10:30 AM

Advancements in Aerosol Packaging and Associated Fire Protection Strategies

T27 9:30 AM – 10:30 AM

Litigation on Fire: NFPA 921 in the Eyes of the Judicial System

Public Education

SUNDAY, JUNE 12, 2011

S13 8:00 AM – 9:00 AM

Fire Education Designed for People with Developmental Disabilities

S15 8:00 AM – 9:00 AM

Brush and Wildland Fires: The Surprising Facts You Need to Know

S18 8:00 AM – 9:00 AM

The Culture of Poverty

S27 9:30 AM – 10:30 AM

Making Fire and Life Safety Presentations Accessible for People Who Are Blind or Have Low Vision

S34 9:30 AM – 10:30 AM

Strategic Leap in Residential Fire Safety: Wide-Scale Home Visits

S42 11:00 AM – 12:00 PM

Mythbusters: Residential Sprinkler Messages for the Fire Service and Public Educators

MONDAY, JUNE 13, 2011

M05 8:00 AM – 9:00 AM

Proving Public Education Works: Raising a Fire Safe Generation of Children

M08 8:00 AM – 9:00 AM

Fire Safety Education and the Web: The Good, the Bad, and the Ugly

M20 11:00 AM – 12:00 PM

AFG Fire Prevention and Safety Grants: The Reverse Panelist Experience

M29 11:00 AM – 12:30 PM

The Three E's: What Your Mother Never Told You about Engineering, Education, and Enforcement

M45 2:45 PM – 3:45 PM

Do You Have Evaluation Phobia? We Have the Cure

M53 2:45 PM – 3:45 PM

Using Social Media to Expand Your Safety Message Outreach

M68 4:15 PM – 5:15 PM

My Child Knows Better — Exploring Parental Myths

M74 4:15 PM – 5:15 PM

Social Media Open Forum

TUESDAY, JUNE 14, 2011

T01 8:00 AM – 9:00 AM

Autism Awareness for Fire and Life Safety Education

T26 9:30 AM – 10:30 AM

How to Meet the Educational Challenges of Large Cities

T32 11:00 AM – 12:00 PM

Strengthening the Impact of Fire and Life Safety Messages on Children

Education Sessions by Track

as of February 18, 2011

Research

SUNDAY, JUNE 12, 2011

S20 9:30 AM – 10:30 AM

Developing Friction Loss Coefficients for Modern Fire Hose

S23 9:30 AM – 10:30 AM

Evaluation of Extended Coverage (EC) Sprinklers for Nonstorage Applications

S25 9:30 AM – 10:30 AM

A Simplified Approach for Assessing Initial Fire Development and Spread

S28 9:30 AM – 10:30 AM

Townhouse Fire Experiments

S32 9:30 AM – 10:30 AM

Liquid Fuel Fires: Fire Dynamics and Forensic Analysis

S41 11:00 AM – 12:00 PM

Biggestone Award Retrospective: 25 Years of Advances in Fire Protection Engineering and Research

S49 11:00 AM – 12:00 PM

Effect of Propylene Glycol/Water Solution on Suppression of Corrugated Cardboard Carton Commodities

S51 11:00 AM – 12:30 PM

Firefighter Safety Considerations for Rooftop Photovoltaic (PV) System Installations

MONDAY, JUNE 13, 2011

M06 8:00 AM – 9:00 AM

Proper Fire Protection for Unique Construction Features

M09 8:00 AM – 9:00 AM

Assessment of the Thermal Hazard from Fire Service Training Fires

M12 8:00 AM – 9:00 AM

Ambulance Crash Safety Research

M24 11:00 AM – 12:30 PM

Understanding the U.S. Firefighter Fatality Problem in 2010

M27 11:00 AM – 12:30 PM

Flammable and Combustible Liquids in Plastic Containers: Understanding the Code, Case Study Implementation, and New Research

M43 2:45 PM – 3:45 PM

Residential Fire Tenability

M50 2:45 PM – 3:45 PM

National Trends in Delivery of Health and Long-Term Care: Implications for Safety Codes and Standards

M51 2:45 PM – 3:45 PM

Flammability of Upholstered Furniture

M69 4:15 PM – 5:15 PM

RENI National Statistics System in Argentina

TUESDAY, JUNE 14, 2011

T02 8:00 AM – 9:00 AM

Validation of Fire Loads Survey Methodologies Used for Structural Fire Protection Design

T03 8:00 AM – 9:00 AM

Smart Grid and NFPA Electrical Safety Codes and Standards

T04 8:00 AM – 9:00 AM

Barriers and Incentives Related to the Installation of Home Fire Sprinklers

T20 9:30 AM – 10:30 AM

Safety Evaluation of Nonmetallic Cable Damaged During Installation

T22 9:30 AM – 10:30 AM

Advancements in Aerosol Packaging and Associated Fire Protection Strategies

T24 9:30 AM – 10:30 AM

Characterizing the High-Temperature Performance of SCBA Facepieces

T28 9:30 AM – 10:30 AM

Smoke Alarm Research and Certifications: A UL Perspective

Get up-to-date conference details, listen to podcasts and view images from last year's conference in Las Vegas by visiting our blog: nfpa.typepad.com/conference