



THE FIRE PROTECTION RESEARCH FOUNDATION

Research Foundation Sponsored Sessions at the 2010 NFPA C&E

Monday, June 7, 2010

M03

8:00 am – 9:00 am Breakers IJ

Results of the WPI-FPRF Mobilization Study: From 9-1-1 to Units Enroute

Robert Upson, Town of New Hartford

This session is a review of the recent Worcester Polytechnic Institute study examining call processing and turnout times from a cross-section of 59 fire departments from around the country serving populations from 10,000 to 3.5 million. Factors affecting overall response performance and realistic predictors of mobilization performance for response planning will be discussed and results will be examined with regard to related sections of NFPA 450, 1221, 1710 and 1720.

M28

9:30 AM – 10:30 AM M28 Breakers AB

Fire Fighting Best Practices for Electric Vehicles and Photovoltaic Panels

Casey Grant, Fire Protection Research Foundation

This is an interim report of a current NFPA research project to assemble and disseminate best practice tactical information for fire fighters and incident commanders to assist in their decision making process when responding to emergencies involving: (1) electric drive and electric hybrid vehicles, including within structures; and (2) buildings and other structures with solar (photovoltaic) panels.

Tuesday, June 8, 2010

T26

11:00 AM – 12:30 PM Mandalay Bay Ballroom A

Safe Thickness for Combustible Dust Layers

Guy Colonna, NFPA; and Erdem Ural, Loss Prevention Science and Technologies, Inc.

This session describes the results of a Fire Protection Research Foundation sponsored project designed to establish the technical basis for quantitative criteria for determining that a compartment is a “dust explosion hazard” that can be incorporated into NFPA 654 and other relevant safety codes and standards.

T33

11:00 AM – 12:30 PM Mandalay Bay Ballroom J

Research Planning in Support of NFPA 13

Kathleen Almand, Fire Protection Research Foundation; John O’Neill, The Protection Engineering Group

The Fire Protection Research Foundation facilitates an annual review of the need for research to support the technical basis of NFPA 13, Standard for the Installation of Automatic Sprinkler Systems. This session will review current research underway and discuss new priorities.

T50

2:45 PM – 3:45 PM Breakers KL

Assessment of Fire Safety Measures in Proscenium Theaters

Jarrold Alston and Jaewook Kwon, Arup

Stage fire protection requirements have changed little over the past 100 years, while technologies in both stagecraft and fire protection systems have advanced. Using CFD, the level of protection afforded by code compliant measures in the stage house of a proscenium theatre has been investigated. Findings and recommendations are presented herein. Technical oversight was provided by a FPRF appointed committee.

T65

4:15 PM – 5:15 PM Mandalay Bay Ballroom A

The Impact of Portable Fire Extinguisher Agents On Cultural Resource Collections

Joseph Scheffey, Hughes Associates, Inc

Portable extinguishers and associated fire extinguishing agents are important in cultural resource collection fire protection. This session will describe the results of a FPRF project to quantify the impact of discharging portable fire extinguisher agents on sensitive materials. The results of a literature review and the development of prototype procedures to test the effects of extinguishers will be presented.

T70

4:15 PM – 5:45:00 PM Lagoon AB

Research Planning in Support of the National Electrical Code®

Kathleen Almand, Fire Protection Research Foundation; Donald Cook, Shelby County Development Services

In 2008, the Fire Protection Research Foundation formed the Advisory Committee on Electrical Safety Research. Committee members consist of leaders from the National Electrical Code Panels who meet annually to discuss research needs stemming from code development activities. This session will review current research and research needs in support of current and future NEC code changes.

Wednesday, June 9, 2010

W05

8:00 AM – 9:00 AM W05 Breakers EF

An Analytical Study of Some Physical Properties of Wire and Cable Samples Collected from Older Homes

David Dini, Underwriters Laboratories

This study describes a unique opportunity to measure certain electrical, mechanical, and chemical characteristics of wire conductor insulation collected from older homes. Detailed information about the building and its wiring enabled inferences to be made about the effects of age and usage on various residential wiring infrastructures. Comparisons between older thermoset rubber and more recent thermoplastic materials are made.

W14

8:00 AM – 9:00 AM Breakers KL

Spacing of Residential Sprinklers on Sloped, and Sloped and Beamed Ceilings

Jason Floyd, Hughes Associates, Inc

This session will present the results of a Fire Protection Research Foundation project with the goal of design criteria for the use of residential sprinklers on sloped and sloped and beamed ceilings.

W34

9:30 AM – 10:30 AM Lagoon AB

Research Planning in Support of the National Fire Alarm Code

Wayne Moore, Hughes Associates, Inc.; Robert Schifiliti, R.P. Schifiliti Associates, Inc.

The Fire Protection Research Foundation facilitates an annual review of the need for research to support the technical basis of the National Fire Alarm Code. This session will review current research underway and discuss new priorities.