

Federal Fire Working Group Teleconference
Federal Emergency Management Agency
United States Fire Administration
June 21, 2011, 9:30- 10:30 am

ATTENDEES

Donald Warner
Tim Pittman
P. Thomas Ruffini
Michael Pritchard
Dale Dague
David Klein
Ross Mowery
Jonathan Mattingly
Kurt Rowdabaugh
Tim Merinar
Nelson Bryner
Rohit (Rik) Khanna

ORGANIZATIONS

Air Force
NAVY Fire & Emergency Svcs.
Director, Fire & Emergency Services, USMC
USMC
Fire & Aviation Mgmt., U.S. Forest Service
Veterans Affairs
EPA
National Institute of Health
Dir., Office of Wildland Fire Coordination/BLM
NIOSH
National Institute of Standards and Technology
Fire Program Area Team Leader/CPSC

USFA ATTENDEES

Alex Furr
Sandra Facinoli
Rebecca A. Ryan

Director, National Fire Programs Division, USFA
Chief, Prevention & Information Branch, NFP
Fire Program Specialist, P&I/NFP

PRESENTATIONS:

Nelson Bryner, NIST
Rik Khanna, CPSC
Dale Dague, USFS

Alex Furr, Director, National Fire Programs Division, USFA, opened the meeting and explained that Glenn Gaines, Deputy Administrator, USFA, was not able to join in the call due to a COOP exercise being held by FEMA. The following presentations were provided to the members.

Nelson Bryner, Deputy Chief, Chemical Engineer
Fire Research Division, NIST

Update from the National Institute of Standards and Technology: Mr. Bryner provided background on how NIST, as an institute, was reorganized in October 2010. In order to provide a better focus on their mission of providing measurement science, NIST reorganized into four labs:

Physical Measurements Lab, Material Measurements Lab, Engineering Lab, and Information Technology Lab. The Building and Fire Research Lab (BFRL) was merged with sections of the Manufacturing Engineering Lab to form the Engineering Lab. With this merger, the staff of the combined Engineering Lab is about twice that of the old Building and Fire Research Lab, about 240 staff.

In October, 2011, the Fire Research Division is going to realign by dissolving the Fire Measurements Group and start up the Wildland-Urban Interface Fire Group. Wildland Urban Interface Fires was identified as a research area where the Fire Division could have much greater impact. With the realignment, The Fire Research Division will have four groups: Firefighting Technology (firefighter safety and effectiveness), Engineered Fire Safety (performance-based codes, fire models and egress), Materials Flammability (improving resistance to ignition and flame spread), and Wildland Urban Interface Fires (reducing ignition and flame spread during WUI fires).

Current projects within the Firefighter Technology Group focused on research on the self-contained breathing apparatus (SCBA) lens. It was explained that NIOSH has compiled a number of recent firefighter fatalities that would be consistent with the failure or melting of the polycarbonate lens of the SCBA. The current NFPA Standard 1981 for SCBA respirators exposes the lens to a 200°F oven and a 10 second flame impingement. It does not appear as though a 200°F oven test is adequately capturing the exposure that firefighters are experiencing. A new radiant exposure test has been proposed to the NFPA committee that will expose the lens to 15kW/m² for five minutes. Polycarbonate lens develop holes in about 2 minutes and due to the positive pressure design of the facepiece, with a full air cylinder, even with a 0.5 inch hole, the SCBA can maintain positive pressure for 10-15 minutes. The NFPA committee is still discussing whether or not a hole in the mask, even if it remains positive pressure, is optimal for firefighters. Research has identified high temperature polymers, such as poly ether sulfone, which have better temperature performance characteristics. The use of thin metal films, such as gold or nickel, are being examined. Please click below to see a video of the SCBA lens.

Breathing Facepiece_LowRes.wmv

In the area of Wildland Urban Interface Fires, there are projects involving improving ignition resistance of structures and the entire community, reducing the fire spread from structure to structure within communities, and incorporating science-based understanding into model building and fire codes. An exposure scale, similar to the Richter scale for earthquakes or the F scale for tornadoes is also being developed. This exposure scale will include parameters such as humidity, wind, terrain, and building materials. This scale would be used to characterize the potential exposure of a structure/community and allow for cost-effective designs to mitigate the exposure.

A project on furniture flammability was also presented. The project includes developing a tool to predict the peak heat release for different furniture based on the component material properties. Previous research has focused on the prevention of ignition and whole item tests. While progress has been made in preventing ignition, it is going to be very difficult to test the infinite number of furniture items. This research will look at keeping the heat release rate to less than the critical

value necessary for the fire to transition rapidly to flashover. Users of this prediction tool would be able to design furniture with lower heat release rates. NIST welcomes collaboration with other agencies who wish to partner with them on reducing the flammability of furniture.

**Rik Khanna, Fire Program Area Team Leader
Office of Hazard Identification and Reduction, CPSC**

CPSC Alert: Counterfeit Smoke Alarms Distributed in Atlanta: Mr. Khanna provided an overview and explanation of this issue. Approximately 18,500 counterfeit photoelectric smoke alarms were distributed for free in the Atlanta area as part of an Atlanta Smoke Alarm Program. The smoke alarms used a counterfeit hologram for the Underwriters Lab (UL) mark and did not have a model number or brand name printed on them.

The Atlanta Fire Department had good records and knew where the units were distributed and is working to provide free smoke alarm inspections and replacement units. CPSC is supporting the federal investigation into this issue and on May 27, 2011, issued a press release that included photos showing what to look for. You may access the press release at:

<http://www.cpsc.gov/CPSC/PUB/PREREL/prhtml11/11232.html>

CPSC contacted the importer of these alarms and they are no longer selling these smoke alarms.

**Dale Dague, Fire & Aviation Management
U.S. Forest Service**

Current U.S. Wildland Fire Situation: Mr. Dague began by stating 2 firefighters were killed in Florida and 2 were injured in an entrapment. 210 new wildfires were raging on land belonging to USFS, BLM, BIA, and National Park Service. 15,000 firefighters currently are assigned to fight these fires, along with 16,000 federal firefighters (who make up 70% of the forest service). We are at a National Preparedness Level III which means two or more geographic areas are experiencing wildland or prescribed fire activities requiring a major commitment of national resources. Additional resources are being ordered and mobilized through the National Interagency Coordination center (NICC); crew commitment nationally is at 50%.

In the Southwest, two new large fires are blazing and there 11 uncontained fires (AZ and NM) are occurring. The Wallow Fire (Apache-Sitgreaves National Forest, AZ and Catron County, NM) is over 50% contained using 3500 personnel and it has destroyed 32 residences and 4 commercial properties. The Monument Fire (Coronado National Memorial, Coronado National Forest, AZ) started on June 12 and has burned 27,000 acres and destroyed 61 residences and 14 commercial buildings. The Horseshoe II fire (Coronado National Forest, Cochise County, AZ) has 1,000 personnel engaged and has consumed nearly 225,000 acres; it is approximately 90% contained.

In the Southern and Southwest area, primarily Texas and Florida, they are at a Preparedness Level V. 146 new fires; 45 uncontained large fires; 15,000 acres are burning and it is quite a long way from being contained. In Georgia, near the Florida border, 10,000 acres are burning and there is no containment in sight. As of the 1st of June, 3.1 million acres have been burned

and we are still early in the fire season. In 2010, a total of 3.2 million acres burned and the historic average is 4.1 million. For more specific information you can go to: <http://www.nifc.gov/fireInfo/nfn.htm> or www.inciweb.org

Round Robin

During the Round Robin session, Tim Merinar, NIOSH, told the participants that National Institute for Occupational Safety and Health (NIOSH) is seeking stakeholder input on the progress and future direction of the Fire Fighter Fatality Investigation and Prevention Program (FFFIPP). Since its initiation in 1998, NIOSH has sought public input to help plan and direct the goals and objectives of the FFFIPP. NIOSH is again seeking input on the progress and future directions of the FFFIPP to ensure that the program is meeting the needs and expectations of the U.S. fire service and to identify ways in which the program can improve its impact on the safety and health of fire fighters across the United States. NIOSH will compile and consider all comments received and use them in making decisions on how to proceed with the FFFIPP.

The link to the NIOSH Fire Fighter Fatality Investigation and Prevention Program call for public comments is <http://www.cdc.gov/niosh/docket/review/docket063B/default.html>. The public docket will be open through Friday July 29, 2011.

**The next meeting is tentatively scheduled for the November/early December timeframe. USFA suggests a half-day on-site meeting would probably be most convenient if held in the DC area.