Federal Fire Working Group Meeting

Federal Emergency Management Agency/U.S. Fire Administration
16825 South Seton Avenue, Emmitsburg, Maryland 21727
July 8, 2014 Time: 9:30 a.m.–11:30 a.m.
Call in#: 1-800-320-4330, PIN#: 669636

ATTENDEES	ORGANIZATIONS
James Call	Smithsonian
Josh Stewart	Smithsonian
Anthony Hamins	NIST
Kevin King	USMC
Tim Merinar	NIOSH
Ricky Brockman	Navy
Carl Glover	Navy
Peter Collins	Bureau of Prisons
Everett Hinkley	USDA Forest Service
Tom Bongiovi	USAir Force at Pentagon
Gordon Sachs	U. S. Forest Service

PRESENTERS
Nick Barilo, Pacific Northwest National Laboratory
Timothy Butters, Pipeline and Hazardous Materials Safety Administration/DOT
David Sandoval, Andrews Air Force Base
Bill Troup, U. S. Fire Administration

USFA ATTENDEES

Ernest Mitchell	Administrator, U.S. Fire Administration
Glenn Gaines	Deputy Administrator, U. S. Fire Administration
Alex Furr	Director, National Fire Programs Division (NFPD), USFA
Sandy Facinoli	Chief, Prevention & Information Branch (P&I), National Fire Programs Division (NFPD), USFA
Rebecca Ryan	Fire Program Specialist, P&I/NFPD

Ernest Mitchell, Administrator, U. S. Fire Administration, welcomed all to the meeting and expressed his interest and appreciation to the members for their participation in this group. He looked forward to hearing the presentations.

Roll Call was taken followed by the first of several presentations.

The following presentations were provided:

Nick Barilo, Hydrogen Safety Program Manager
Pacific Northwest National Laboratory
Presentation: *Hydrogen and Fuel Technologies: Applications and Resources*

Mr. Barilo stated that an understanding of the properties of hydrogen is critical for the proper design of a facility or workspace. Some of the characteristics of hydrogen are:

- it has a flammable range of 4-75% in the air
- will typically rise and disperse rapidly (14x lighter than air)
- burns with a pale blue, almost invisible flame
- can embrittle some metals

It was mentioned that some of the benefits of fuel cells are that they have very high efficiency, reduced CO_2 emissions, reduced oil use, reduced air pollution and provide fuel flexibility. In terms of the fuel flexibility hydrogen can be produced cleanly using sunlight or biomass directly, or through electrolysis, using renewable electricity. There is also a 55-90% reduction in emissions for light-duty vehicles.

Mr. Barilo mentioned a course, *Introduction to Hydrogen Safety for First Responders*, that provides an awareness-level overview of hydrogen for fire, law enforcement, emergency medical personnel or individuals who my witness or discover a hydrogen release and must initiate an action. The course content covers some of the following topics: hydrogen basics; transport and storage, hydrogen vehicles, hydrogen dispensing; stationary facilities, codes and standards and emergency response. The course is registered on the TRAIN*website for broader dissemination to first responders. *TrainingFinder Realtime Affiliate Integrated Network (TRAIN) is a central repository for public health training courses.

Nick referred to a National Hydrogen Emergency Response Education Program that will be available in the Fall of 2014. It is a repository of training information related to hydrogen and fuel cells based on DOE's Hydrogen Emergency Response Training for First Responders and a program developed for the California Office of the State Fire Marshal by the California Fuel Cell Partnership. The training program is intended to provide current and accurate information and includes a guide for applying the training materials as a quick overview, short course or full session.

He also provided some helpful links to hydrogen safety resources that included databases/websites, manuals, fliers, posters, newsletters, reports, apps, and other literature. Nick also mentioned other training materials as well as properties and calculators which might prove useful.

Timothy Butters, Deputy Administrator
Pipeline and Hazardous Materials Safety Administration (PHMSA)
Department of Transportation
Presentation: *Operation Safe Delivery: A Comprehensive Federal Action Plan to Address the Safe Transportation of Bakken Shale Crude Oil and Other Flammable Liquids*

Mr. Butters opened his presentation by stating the PHMSA's Mission which is to protect people and the environment from the risks inherent in the transportation of hazardous materials by all modes of transportation. He also pointed out the 5 "C's" of regulating hazardous materials: classification, container, communication, compliance and consequence.

US Energy production was explained. The growth of domestic natural gas and crude oil production is revolutionizing the US energy economy. In December 2013, over 11 million barrels were produced daily. It was noted that in 2013 the Bakken sites produced over 10% of all US oil. Specifically, in November 2013, over 16,000 Bakken wells produced 29 million barrels of oil which is over 900,000 barrels of oil daily.

Mr. Butters explained that increased energy production equals increased transport by all modes. The volume of crude oil moving by rail has quadrupled in less than a decade. While rail volume has increased the accidents have declined by 43% and hazmat related incidents are down by approimatley16%. Tim pointed out that limited pipeline capacity and location of refineries that process light crude favors transport by rail.

The transportation of Bakken crude oil is not without incident. Mr. Butters highlighted several derailments the most recent in Lynchburg, VA where 17 of 105 cars of Bakken Oil unit train derailed. He pointed out that *Operation Safe Delivery* is a comprehensive approach to address risk, prevent derailments and reduce consequences of flammable liquids by rail. The emphasis is on prevention and mitigation. Tim mentioned that several non-regulatory actions have been taken by the Secretary of Transportation. In February 2014 the Secretary issued an Emergency Order requiring shippers of petroleum crude oil ensure crude oil is properly analyzed and classified prior to transportation. And in May 2014 the Secretary issued an Emergency Order requiring railroads provide local communities with information regarding transportation of Bakken crude oil and a Safety Advisory regarding the user of DOT 111 rail cars.

Mr. Butters concluded his remarks by highlighting some issues emergency responders should take into account. Some of those issues are: most local fire departments are not capable of effectively responding to unit train incidents; Bakken crude oil is not an exotic product—it is flammable liquid; there should be closer cooperation between shippers, railroads and local responders; and industry may need to provide response resources.

Tim advised that updated information on *Operation Safe Delivery* will be continuously updated on their website (www.phmsa.dot.gov) to provide progress reports on industry commitments and additional Departmental activities related to the rail safety initiative.

David Sandoval, Command Fire Chief
Emergency Services Branch Chief
Andrews Air Force Base
Presentation: *Air National Guard Search and Rescue Initiative*

Chief Sandoval provided an overview-of the Air National Guard's (ANG) Search and Rescue (SAR) Goals. The initial goals included developing 2 modified Type-III SAR teams in each of the 10 FEMA regions. These teams are configured for lighter construction, usually encountered in weather-related natural disasters. The teams are organized into 4 major functional elements: search, rescue, technical and medical. Initially, a total of 300 ANG traditional firefighters were trained to Technician level for all Search and Rescue competencies and also trained to FEMA Structural Collapse technician level.

Chief Sandoval pointed out that over the long term they hope to train all ANG firefighters in SAR. In FY14, the hope is to have 1055 ANG firefighters trained to the Rescue Technician II level. The Chief explained that their course of action would involve developing two 15-member SAR teams per FEMA Regions. Each team would provide Type-III SAR capability and would be deployable in or out of FEMA Regions. These teams would be fully equipped including response vehicles. One of the potential benefits for this course of action is that fully trained and equipped technical rescue teams would be on scene 6 hours after the incident occurs.

The total number trained as of September 2013 was 968 personnel and projected for FY2014 is 420 personnel trained. For the out years 2015-2017, the hope is to train 300 personnel each year with refresher exercises every three years. Chief Sandoval also mentioned that they follow the National Fire Protection Association (NFPA)1500 Standard on Fire Department Occupational Safety as well as NFPAs1006 Standard on Rescue Technician Training.

In moving forward some of the actions to be accomplished include establishing/briefing Concept of Operations (CONOPS) up through National Guard Bureau (NGB) Joint Staff; establishing Type III Task Force Identification; and funding for training and equipment.

Bill Troup, Fire Program Specialist
National Fire Data Center
U. S. Fire Administration
Presentation: *USFA Research Program Update*

Mr. Troup provided a thorough overview of the applied research and technology programs the U.S. Fire Administration has been involved with over the past few years. Bill mentioned the NIOSH Study of Cancer among firefighters that USFA supported. Some of the key features of this study included the largest multi-department firefighter cohort ever assembled including over 30,000 firefighters; cancer incidence and mortality, and the development of a Firefighter Cancer Information website. The study results were published in Occupational and Environmental Medicine October 14, 2013.

The USFA released the first *Emergency Vehicle Safety Initiative* report in 2004 to reduce, if not eliminate, deaths from vehicle crashes and roadway operations. It is important to note that vehicle crashes account for approximately ¼ of firefighter on-duty fatalities. With the support of the U.S. Department of Justice (DOJ) National Institute of Justice (NIJ), the *Emergency Vehicle Safety Initiative* was updated in 2014. The update included law enforcement and other emergency responders in addition to the fire service. Mr. Troup emphasized that many USFA program efforts in this area support law enforcement. Bill also mentioned that the USFA, in partnership with the International Association of Fire Fighters (IAFF), expanded the *Improving Apparatus Response and Roadway Operational Safety in the Career Fire Service i*nto a comprehensive training program for all public safety, including law enforcement.

Protecting emergency responders on the highways is extremely important and Mr. Troup reminded the group that a *Slow Down and Move Over* public service announcement based on

past USFA supported roadway safety research was available. It was developed in conjunction with the Cumberland Valley Volunteer Firemen's Association (CVVFA) Emergency Responder Safety Institute (ESRI) which serves as an advisory group of public safety leaders and transportation experts committed to reducing deaths and injuries to America's emergency responders operating on the roadway. You can view this psa at the CVVFA website: www.respondersafety.com

Mr. Troup briefed on the National Safety Culture Change Initiative which has a goal to implement and demonstrate cultural change for safety and health within the fire service. This U.S. Fire Administration's (USFA) partnership with the International Association of Fire Chiefs (IAFC) will identify individual and organizational behaviors that adversely impact firefighter health and safety and develop strategies to mitigate them. The IAFC's Safety, Health and Survival (SHS) Section will provide key support to the study. This study supports the National Fallen Firefighters Foundation Life Safety Initiative #1: define and advocate the need for a cultural change within the fire service relating to safety; incorporating leadership, management, supervision, accountability and personal responsibility. A rollout of the website: www.ffsafetyculture.org will take place at the IAFC Fire Rescue International Conference in August, 2014.

Finally, Bill highlighted some EMS project initiatives all of which are in partnership with the DHS Office of Health Affairs. There is the updated USFA's *Funding Alternatives for Fire and Emergency Services* (2012) which incorporated an enhanced concentration on EMS; a *Handbook for EMS Medical Directors* produced in 2012 with the IAFC; and, *a Study of Model Policies and Protocols for EMS Mass Care Deployment* that was developed in 2012 in conjunction with the National EMS Management Association.

Round Robin:

No issues/topics were discussed.

**The attendees were advised that the next FFWG teleconference/meeting would be in the late November-early December timeframe. Please feel free to notify Rebecca Ryan (becky.ryan@fema.dhs.gov) if you have a topic you would like to present at our next meeting. As always we appreciate the support of all our members and encourage your participation in future meetings.