



# NASFM News

National Association of State Fire Marshals

**December 2013**

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## MARK YOUR CALENDAR!

**NASFM Board of Directors Meeting**  
April 30, 2014  
Washington, DC

**26th Annual National Fire & Emergency Services Dinner**  
May 1, 2014  
Washington, DC

**NASFM Annual Conference**  
July 28-30, 2014



**One Strong, United Voice for Fire Prevention**

## Idaho's Mark Larson Joins NASFM Board of Directors

Idaho State Fire Marshal Mark Larson has been appointed to fill a vacant term on the NASFM Board of Directors that expires at the 2015 NASFM Annual Conference.

Larson was appointed to the State Fire Marshal position in Idaho in December 2001, having started his service with the state in 2000 as Chief Deputy to the State Fire Marshal. He began his involvement with the fire service in the mid-1970s as a volunteer firefighter-EMT in a small town in central Minnesota. He moved to Idaho in 1977 and served as a volunteer firefighter in two different communities before becoming a career firefighter in 1994.

Larson joins other members of the NASFM Board, President Bill Degnan (New Hampshire), Vice President Butch Browning (Louisiana), Secretary Treasurer Ed Paulk (Alabama), Chris Connealy (Texas), Jim Greeson (Indiana), and Julius Halas (Florida).



St. Pete Beach,  
Florida

## Join the NASFM Model Codes Committee and Help Make a Positive Impact on the Built Environment

*By Kelly Nicoletto, Alaska State Fire Marshal and Chairman of NASFM's Model Codes Committee*

### Quick Links

[NASFM](#)

[NASFM Training Portal](#)

[Fire Safety and Green Buildings](#)

[Pipeline Emergencies](#)

[Implementing a Residential Sprinkler Requirement](#)

[Common Ground Alliance Monthly Update Newsletter](#)

[Crowd Manager Training](#)

[Yellow CSST Safety Campaign](#)

[Fire is Everyone's Fight™](#)

[Partnering For Prevention™ Multicultural Training](#)



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NASFM members have historically been involved in the model code making process for some time. In the past it has taken the commitment of State Fire Marshals to provide the staff hours, financial commitment and experience to

participate on a national basis. It is an involved process that required participants to be in attendance to be effective.

With the advent of the International Code Council's cdpACCESS and the National Fire Protection Association's electronic standards development process, all members of NASFM can participate without necessarily having to fund travel and hotel bills. There is still no better way to understand the code process than to be there and participate.

There will be a level of networking and relationship building that will be lost in the electronic process, but that will be outweighed by enabling full participation for voting on issues that concern the fire service and in particular Fire Prevention.

Each state decides what code body is most appropriate for its use as the authority having jurisdiction. Most states have a foot firmly planted in both organizations and although the electronic processes are different, it is imperative to become familiar with them. Once understood, there are few excuses not to participate in the proposals, public comment and where appropriate, voting to exercise your rights to participation.

Through the leadership of Ed Altizer, State Fire Marshal of Virginia, the NASFM Model Codes Committee participated in many model code proposal discussions and set the stage for many improvements in fire protection codes. However, the Committee's effectiveness was limited to who could afford to travel regularly to represent the issues. With these new processes, anyone who is interested can, within the confines of their own working hours without necessarily having to travel, participate at all levels. To maximize NASFM effectiveness and widen our scope of influence within the model code community, we are inviting you and your staff to participate as a member of the NASFM Model Codes Committee as we use these new systems to broaden the NASFM presence and make positive changes in the model code environment.

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**Pipeline Emergencies is now available for Android devices in addition to the iPhone and iPod**

**Visit Pipeline Emergencies 2:**



[Pipeline Emergencies.com](http://PipelineEmergencies.com)

For more information, contact Philip Oakes of the NASFM staff at [poakes@narvaassociates.com](mailto:poakes@narvaassociates.com).

## **Update on National Cohesive Wildland Fire Management Strategy Working Group**

*By Tonya Hoover, California State Fire Marshal*

NASFM has a seat at the table to increase the knowledge and implementation of the National Cohesive Wildland Fire Management Strategy; groups involved range from fire service to planners, builders, standard development groups, and regulatory departments and agencies. The idea is to engage individuals at all levels for a collective and consistent application of the Cohesive Strategy -- in other words, how does the National Cohesive Strategy get down to the grassroots and how does it get applied to ensure a coordinated message that will reduce the damages from wildfire.

As your representative on the Cohesive Strategy Barriers and Critical Success Working Group, I want to provide NASFM an update of the group's activities. NASFM has an important role in the message

delivery as we are the typical group, at a state level, that provides assistance in the world of codes and standards and is a key voice piece to the deliverance of a fire safety message. The most recent Work Group call centered around the following discussions and actions:

1. The US Forest Service (USFS) has developed a website and educational materials concerning this topic. They are interested in partnering with all interested parties in order to accomplish some critical tasks. The Working Group Chair will be contacting the lead individual with USFS to discuss and find ways to coordinate efforts and work together.
2. The Working Group wants to reach out to all organizations from national to state to local levels to engage in the Cohesive Strategy. We are asking groups that hold conferences and/or workshops to add this to their agenda. This subject has interest not only to fire officials but also to planning organizations, code enforcers, and standards developers. This would be a good topic to have at our Annual Conference in July.



3. The Working Group will be attempting to collect a list of wildland-urban interface codes and standards used throughout the country. In the near future I will be putting out an email that has a list of questions for the group.

As I get more information I will pass it along to the group. In advance, thanks for your assistance in the collection of information. Should you have any questions, please do not hesitate to contact me at 916-445-8200 or [Tonya.Hoover@fire.ca.gov](mailto:Tonya.Hoover@fire.ca.gov).

For more information on the Cohesive Strategy, visit [www.forestsandrangelands.gov](http://www.forestsandrangelands.gov).

### **OSHA Encourages Crowd Management During the Holiday Season**

*In November, NASFM President Bill Degnan received the following letter from the U.S. Department of Labor's Occupational Safety and Health Administration. It is a perfect time to remind readers of NASFM's Crowd Manager Online Training, which is available at [www.crowdmanagers.com](http://www.crowdmanagers.com).*



Dear Mr. Degnan:

I am writing this letter to inform you that the Occupational Safety and Health Administration (OSHA) has recently sent letters to some retailers where large crowds can be expected during the holiday season's major sales events. As you may know, a worker was trampled to death few years ago as shoppers rushed through a retailer's doors to take advantage of an after Thanksgiving Day "Black Friday" sales event.

The letters encourage retailers and store owners to take precautions to prevent worker injuries during the sales events or at other events where large crowds may gather. The letters also encourage them to use the safety guidelines provided in an OSHA Fact Sheet entitled, "Crowd Management Safety Guidelines for Retailers,"

([https://www.osha.gov/OshDoc/data\\_General\\_Facts/Crowd\\_Control.html](https://www.osha.gov/OshDoc/data_General_Facts/Crowd_Control.html)) in addition to their own procedures. In addition,

retailers are reminded to maintain appropriate access to exit routes and ensure that exits are not blocked.

I am sure you share our concern over these issues and our goal to ensure that crowd management plans and proper emergency exit measures are in place as this season approaches. We appreciate any assistance on your part to further distribute this information to those within your association who can assist in minimizing any loss of lives or injuries during these holiday sales events. Our work together in this effort will help ensure that we can all have a safe and happy holiday season.

Thank you for your attention to this urgent worker safety matter.

Sincerely,  
David Michaels, PhD, MPH  
Assistant Secretary for Occupational Safety and Health

## Harmonization between the International Fire Code and NFPA Combustible Dust Standards

*By John C. Astad, Process Safety Analyst, Combustible Dust Policy Institute*

Much work and education lies ahead after the International Fire Code (2015 Edition) proposed code change F-245-13 addressing clarification of requirements to mitigate hazards associated with combustible dust was disapproved by ICC governmental members at the ICC Group B Public Comment Hearing (PCH) in Atlantic City on October 3, 2013. F-245-13 was prepared by the Fire Code Action Committee in response to the U.S. Chemical Safety Board (CSB) recommendations following a series of combustible dust related flash fires at an iron powder manufacturing facility in Gallatin, Tennessee, resulting in tragic loss of life with workers succumbing to severe burn injuries from combustible dust related flash fires. ([See Figure 1-CSB recommendations.](#))



### Power of One Word...Shall

Currently, IFC Chapter 22 - Combustible Dust-Producing Operations, Section 2204 Explosion Protection, 2204.1 Standards, states, "The fire code official is authorized to enforce applicable provisions of the codes and standards listed in Table 2204.1 to prevent and control dust explosions." CSB determined this IFC combustible dust section was

discretionary as to whether compliance with the listed NFPA combustible standards (best industry practices) in the IFC table is mandatory or voluntary, with the word, "authorized." The proposed revision was quite simple, striking out the wording which included "authorized," and replacing with "shall." ([See Figure 2-CSB-ICC Analysis.](#))

The ICC Fire Code Action Committee initially submitted F-245-13 following the April 2013 ICC Group B Committee Action Hearings in Dallas, Texas, with a July 15, 2013, closing deadline for public comments. As the philosophical saying goes, "if a tree falls in a forest and no one is around to hear it, does it make a sound?" Nationwide a diverse spectrum of stakeholders didn't hear the sound of this important proposed revision to the IFC, resulting in only one public comment, which was for disapproval. ([See Figure 3-ICC F-245 public agenda.](#)) This was in stark contrast to the over 100 comments OSHA received following the publication of the Combustible Dust Advance Notice of Proposed Rulemaking (ANPRM) in 2009.

#### **CSB and ICC Collaboration**

Two and half months prior to the ICC Group B Public PCH the CSB held their own public meeting on July 25, 2013. The primary reasons for the meeting were to vote on key safety recommendations and initiate the "Most Wanted Chemical Safety Improvement" program where combustible dust hazards were the first to be placed on the "Most Wanted" list.

This important CSB event was monumental for the ICC where Bruce E. Johnson, Director of Fire Service Activities at ICC, provided insightful testimony, which is now part of the public record addressing combustible dust hazards from a Code point of view instead of just the national dialogue on best industry practices or more appropriately referred to as Standards.

Key ICC talking points regarding combustible dust hazards in the testimony included informing stakeholders about the recent IFC Code Change Proposal F245-13, where ironically the public comment deadline had already passed two weeks earlier, requiring enforcement of the applicable NFPA combustible dust standards in the IFC in addition to increased awareness training in I-Code educational development programs. This training element would result in building and fire officials understanding the importance of identifying and mitigating potential combustible dust fire and explosion occupancy hazards through their inspection and enforcement activities.

#### **Combustible Dust Primarily a Fire Hazard**

Initially addressing combustible dust hazards from a fire code standpoint in conjunction with mandatorily referencing NFPA combustible dust standards is crucial to minimizing occupancy risk,

especially since combustible dust is primarily a fire hazard and secondarily an explosion issue. Remove one leg of the fire triangle in conjunction with effectively managing the other two legs and there will be no possibility of a secondary catastrophic dust explosion. Since 2003, in all five of the catastrophic dust explosions and flash fires CSB completed accident investigations on, there was a consistent history of "near miss" combustible dust related incidents, precursors to catastrophe where the majority of instances consisted of combustible dust related layer fires.

For building and fire code officials to acquire a comprehensive understanding of the magnitude of non-consequential "near misses" combustible dust related fires, it is important to review prior empirical NFIRS incident data. In 2012 the Combustible Dust Policy Institute completed a preliminary analysis of National Fire Information Reporting System (NFIRS) data provided by the U.S. Fire Administration indicating in 2011 over 500 combustible dust related incidents where dust was the item first ignited in manufacturing occupancies.

At the tip of the iceberg, casualties resulted in approximately 5% of the incidents. In contrast, below the waterline in over 70% of combustible dust related incidents, mostly fire related, there was no property damage/content loss or casualties. Approaching combustible dust hazards from a fire code point of view while in conjunction referencing NFPA combustible dust standards will immensely reduce the probability and minimize the severity of future incidents.

**CSB Recommendation: Codes Mandatorily Referencing Standards**  
CSB recommendations on the IFC mandatorily referencing the NFPA combustible dust standards began over a decade ago following the January 29, 2003, catastrophic dust explosion at West Pharmaceutical Services, Inc., in Kinston, North Carolina, claiming six lives and resulting in 38 injuries. In their research CSB investigators learned about a prior "near miss" combustible dust related fire involving polyethylene powder near process equipment ignited in close proximity to hot work operations where luckily the fire self-extinguished.

A key issue in the debut of this CSB accident investigation report included local amendments to fire codes. Subsequently CSB recommended to the North Carolina Building Code Council to amend Chapter 13, Section 1304, of the IFC (as adopted by the North Carolina Fire Code) making compliance mandatory in referencing combustible dust standard NFPA 654. Another crucial CSB recommendation included North Carolina Code Officials Qualification Board to incorporate the provisions of NFPA 654 into the training program for state and local building and fire code officials.

**CSB 2006 Combustible Dust Hazard Study**

With three catastrophic dust explosions within a short nine-month timeframe in 2003, CSB became vividly aware of the nation's manufacturing occupancies having a notorious combustible dust problem and initiated a dust hazard study getting to the root of the problem. Recommendations in this comprehensive report directed OSHA to issue a standard designed to prevent combustible dust fires and explosions in general industry and to base the standard on current NFPA combustible dust standards to include NFPA 654 and NFPA 484.

Another recommendation directed at OSHA was to provide training to OSHA compliance officers through the OSHA Training Institute (OTI) on recognizing and preventing combustible dust explosions. Basically the CSB Dust Hazard Study is the "tail that wags the dog" in the current and most contentious OSHA combustible dust rulemaking process in addition to the recently proposed revision F-245-13.

Absent from the seminal CSB Dust Hazard Study was recommendations to ICC amending the IFC making mandatory reference to the NFPA combustible dust standards in addition to reemphasizing combustible dust hazard awareness training for local building and fire code officials. Fire hazards are local issues and can never be effectively regulated at a federal level. In a transcript from the November 9, 2006, CSB public meeting in Washington, D.C., prior to the release of the report, Dave Conover, formerly a Senior Advisor at the ICC, provided enlightening insight on state, local and federal shared responsibility:

"When I'm talking about shared responsibility, I think it's important that recommendation to OSHA be that they need to do it in conjunction with and build upon state and local regulations and those that are, in effect, being effectively adopted, implemented and enforced can be reinforced with OSHA rather than preempted....[There] needs to be ... continued shared responsibility that works on top of and effectively with state and local programs."

### **Conclusion**

The IFC provisions addressing combustible dust fire and explosion hazards in manufacturing and industrial occupancies has the potential to form a sound foundation in occupancy risk prevention and mitigation at the local level when the appropriate NFPA combustible dust standards become a mandatory reference. This will assist local building and fire code officials in establishing minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection as stated in the intent of the IFC.

To reach this point will first require harmonization between the NFPA combustible dust standards and the IFC instead of the current conflicts as witnessed in the disapproval of F-245-13. An excellent example of



harmonization resulting in a presumption of conformity is practiced by our cousins in the European Union with the ATEX Directives. Currently NFPA is developing NFPA 652 Standard on Combustible Dusts for the Fall 2014 revision cycle in providing the basic principles and requirements in identifying and managing combustible dust fire and explosion hazards. When NFPA 652 is finalized it will direct stakeholders to commodity-specific (wood, metals, chemicals, food, etc.) NFPA standards. This will assist in minimizing the current confusion that many stakeholders are experiencing in utilizing the current multitude of NFPA combustible dust standards.

A potential solution for the future in which Bruce E. Johnson, ICC Fire Services Director, shared with CSB in his public comment at the CSB July 2013 "Most Wanted" meeting was, "A recommendation that ICC encourage greater public-private collaboration between federal agencies such as OSHA and standard development organizations (SDOs) like ICC and NFPA." The ICC Fire Code Action Committee will again take up this issue for the 2018 IFC and will work with stakeholders and industry experts to resolve the conflicts presented in testimony on Public Comment to F245-13 in Atlantic City. This would be a positive step towards much needed harmonization and shared responsibility between fire prevention standards and I-Codes.

## Sign Up for NFPA Free Webinar on Responding to Electrical Vehicle Battery Fires



**ELECTRIC VEHICLE  
SAFETY TRAINING**  
A PROJECT OF THE NATIONAL FIRE PROTECTION ASSOCIATION

On February 11, 2014,  
from 12-2:30 pm  
Eastern, NFPA is offering  
a free sponsored webinar

on Responding to Electric Vehicle Battery Fires. The webinar reviews the results of a recent research program to develop the technical basis for best practices for emergency response procedures for electric drive vehicle battery incidents, with consideration for certain details, including suppression methods, personal protective equipment, and cleanup/overhaul operations.

The research program was based on full-scale testing of large-format Li-ion batteries used in these electric vehicles. The presentation will summarize these tests and includes discussion on the key findings relating to best practices for emergency response procedures for electric drive vehicle battery incidents. Instructors are the Principal Engineers for the research program, Casey Grant, P.E., Research Director of the Fire Protection Research Foundation; and R. Thomas Long, Jr., P.E., of Exponent, Inc.

To register, visit [www.nfpa.org/sponsoredwebinars](http://www.nfpa.org/sponsoredwebinars).

Season's Greetings and Happy New Year from the  
NASFM Board and Staff!

