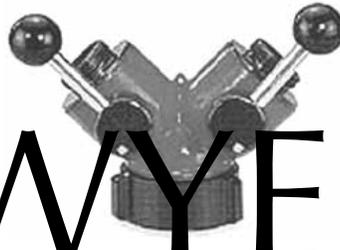


# GATED WYE



March 2013 · Oregon Office of State Fire Marshal · 4760 Portland Road NE · Salem Oregon 97305-1760 · No. 350

## Two National Fire Academy classes coming to Oregon

The Oregon Department of Public Safety Standards and Training, in conjunction with the Oregon Office of State Fire Marshal, is hosting two National Fire Academy courses during April 2013.

Both courses are free and will take place on the campus of the Oregon Public Safety Academy in Salem, Oregon.

The courses are:

- Fire Prevention for First Responders and Small Departments (F271), April 22-23, 2013
- National Fire Incident Reporting System: Introduction to NFIRS 5.0 (F497), April 24-25, 2013

Classes are 8 a.m. to 5 p.m. daily. Lunch on training days is free to all Oregon fire agencies. Attire is business casual (no jeans). Dorm room lodging and meals are available at the Public Safety Academy for those traveling more than 75 miles one-way. You may request a dorm room (after receiving a course registration confirmation email) by contacting Rebecca Nolte at [rebecca.nolte@state.or.us](mailto:rebecca.nolte@state.or.us) or 503-378-4399, no later than April 10, 2013.

- **Fire Prevention for First Responders and Small Departments** stresses awareness, advocacy, and motivational content needed by those traditionally focused on operations (suppression, emergency medical services, etc.) and who seek to learn new successful approaches appropriate for communities of all sizes, but especially smaller communities. The course focuses on identifying exciting and highly successful tools and approaches for

addressing the total fire protection challenge via lessons learned in other communities, resources available, and the means and value of building partnerships and coalitions. Students will come away empowered to make change and thus build departments that are more effective at serving both customers and members by learning how to manage the fire prevention function better.

- **National Fire Incident Reporting System: Introduction to NFIRS 5.0** teaches students how to use standardized forms to achieve uniformity in their incident and activity reporting. This training, designed specifically to support local fire service organizations, will assist them in providing data both to their management and decision makers, as well as to their State uniform fire reporting system. At a local level, the NFIRS data can be used to: describe a community's fire problem; support budget requests; improve decision-making for allocation of resources; assist in planning for future fire protection; help identify opportunities for scheduling non-emergency activities; evaluate code enforcement programs; and identify target audiences for public fire education programs.

[Registration forms are available on the DPSST website](#), deadline is April 10, 2013. Fax applications to Thelma Denney, Fire Training, 503-378-3345. For questions, contact Ms. Denney at 503-378-2408 or [thelma.denney@state.or.us](mailto:thelma.denney@state.or.us).

*Note: Use of tobacco products of any kind is not permitted anywhere on State of Oregon properties, including the Oregon Public Safety Academy.*

# From the desk of the State Fire Marshal



**“She (Ireland) did nothing wrong and was just being a kid.”**

– SFM Mark Wallace

## A rare series of events should lead to caution, not fear

One of the most important functions of our Deputy State Fire Marshals is conducting Origin and Cause investigations after a fire. This becomes a critical function when there is an injury, especially when a child is involved. Oregon recently had its first child fire fatality in 18 months. Although this statistic is encouraging, I hope we can prevent any such fire fatality in the future. But, that discussion is for another time.

The circumstance that has had our attention this past month is a burn injury to a child which occurred while she was in a hospital. Our Deputy State Fire Marshal Dan Jones led the investigation and he successfully identified the most probable cause. Research into similar fire incidents shows very few similar occurrences in the past, and none exactly like the combination of factors resulting in the severe burn injuries to 11-year-old Ireland Lane. Because it is so rare, there is no reason to believe that anyone at any facility is in significant danger of having the same thing happen. Still, it is helpful to explain the combination of factors found.

The fire involved the ignition of hand sanitizer by static electricity. CDC recommendations state hand sanitizers are effective at stopping the spread of germs if they contain at least 60% ethyl alcohol. Millions of people use these hand sanitizers safely every day and the health benefits of this are hugely important. Different brands are formulated with differing combinations of ingredients which results in a higher flash point temperature of the mixture than pure ethyl alcohol alone. The MSDS of the involved hand sanitizer indicates the flash point is just less than 70 degrees F, rather than 55 degrees F for pure ethyl alcohol, making this and other similar hand sanitizers less of a hazard, even though all these products can be ignited under the right conditions. The room temperature in the location of the fire was about 72-74 degrees F.

see *SFM Wallace* page 8



**State Fire Marshal  
Mark Wallace**

**Office of  
State Fire Marshal**

**Oregon State Police  
4760 Portland Rd. NE  
Salem Oregon  
97305-1760**

**[www.oregon.gov/OSP/SFM](http://www.oregon.gov/OSP/SFM)  
503-934-8200**

Administration  
ext. 205

Codes & Technical  
Services  
ext. 269

Fire & Life Safety Education  
ext. 236

Community  
Right-to-Know  
ext. 238

Data Collection & Research  
ext. 273

Emergency Planning and  
Response  
ext. 238

Fire & Life Safety  
ext. 256

License & Permits  
ext. 264

Youth Prevention  
& Intervention  
ext. 240



The Gated Wye is published monthly by the Oregon Office of State Fire Marshal. For submissions or suggestions contact Rich Hoover at 503-934-8217 or email [richard.hoover@state.or.us](mailto:richard.hoover@state.or.us). In compliance with the Americans with Disabilities Act, alternative formats of this publication are available.

## Juvenile Intervention Specialist training in central Oregon

**M**ark your calendar and get your registration form in early for the NFPA 1035 Juvenile Firesetter Specialist I training. The Office of State Fire Marshal's Youth Fire Prevention & Intervention program, at the invitation of the Central Oregon Youth Fire Prevention & Intervention NETWORK, and the Bend Fire Department, will be facilitating the training.

The course provides an overview of Oregon's Juvenile with Fire Intervention Program and includes policies, procedures and law, child development, and communication techniques. There are practice opportunities with Oregon's Juvenile with Fire Screening Tool and intervention options.

The class prepares applicants for completing the task book required by the Department of Public Safety Standards and Training for the National Fire Protection Association 1035 certification as a Juvenile Firesetter Intervention Specialist I in Oregon.

There is no course fee, however **registration is required**. All training and educational materials are provided at no cost by the OSFM.

When: April 4-5, 2013 (Thursday/Friday)  
Time: 8 a.m. to 5 p.m. each day  
Where: Bend Fire Department Training Center  
63377 Jamison Street  
Bend, OR 97701

The [registration form, along with course information flyer](#) can be found on the OSFM website.

For questions, contact Krista Fischer at 503-934-8240 or [krista.fischer@state.or.us](mailto:krista.fischer@state.or.us).

## Fire Defense Board meeting

**T**he 2013 Oregon Fire Defense Board Chief training is Monday, May 6, at Eagle Crest Resort in Redmond, Oregon.

- 9-11:30 a.m. Mobilization Plan training
- 12-1:30 p.m. Lunch/Panel conversation on mobilizations
- 2-3:30 p.m. Fire Defense Board Chiefs formal meeting

[Registration is available online.](#)

## HMEP grant application period now open

**T**he FY 2013-14 Hazardous Materials Emergency Preparedness (HMEP) grant application period is now open until April 2, 2013.

The purpose of the grant program is to:

- Increase effectiveness in safely and efficiently handling hazardous material accidents and incidents,
- Enhance implementation of the Emergency Planning and Community Right-to-Know Act,
- Encourage a comprehensive approach to emergency training and planning by incorporating the unique challenges of responses to transportation situations.

The [HMEP grant application kit](#) is available on the OSFM website.

For more information, contact Sue Otjen at 503-934-8227 or [sue.otjen@state.or.us](mailto:sue.otjen@state.or.us).

## Fallen Trooper Memorial Run

**T**he 2<sup>nd</sup> annual Fallen Trooper Memorial Run will take place Sunday, June 2, 2013 at Champoeg

State Park. The charity event will help raise funds for a [physical memorial](#) to honor the men and women of The Oregon State Police who made the ultimate sacrifice.

The event consists of 10K and 5K walks and runs. There will also be a 2K Kids Fun Run, and a 20K Crossfit Team Challenge. All events will be held on bike paths through the park. Start times for events run from 9:45 a.m. to 10:45 a.m.

[More information and registration is available online.](#)



## OFSOA Spring Workshop

The Oregon Fire Service Office Administrators (OFSOA), in partnership with Seaside Fire & Rescue, is hosting their 2013 Spring Workshop at the Shilo Oceanfront Resort in Seaside, Oregon, April 25-26, 2013.

The workshop, titled: The Corps of Discovery – Preparing for the Future includes sessions on:

- Computer Program Tips, Tricks, and Shortcuts in Publisher, Excel, and Word,
- How to Build a Rock Solid Financial Plan,
- Emergency Preparedness for a Catastrophic Disaster,
- Protecting Yourself,
- Safety and Rescue, and more.

Thursday night's steak and seafood dinner will be hosted by Seaside Fire & Rescue. Fee for the full workshop is \$85. Visit the OFSOA website for more information and to register. Registration deadline is April 8, 2013.

A limited number of scholarships are available. Contact Deb Keehn at 541-327-2822 or email [scholarships@ofsoa.com](mailto:scholarships@ofsoa.com). Scholarship application deadline is April 1, 2013.

## OSFM Positive Action Committee recognition

The OSFM Positive Action Committee (PAC) recently recognized Licensing & Permits Coordinator Nicole Lewis for her "willingness to take on additional duties and projects with a positive attitude. She is a great team player, willing to assist anyone when needed regardless of the work unit. She is professional and dedicated, and represents the OSFM with positive professionalism."

Anyone in or outside the OSFM may nominate an employee for recognition by using our online form or those available at the reception desk at the Salem office.



*Fire & Life Safety Education Manager Claire McGrew presents Nicole Lewis with her certificate of appreciation.*

## DOT launches free app featuring Emergency Response Guidebook

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) has announced the availability of a free, mobile web app of its Emergency Response Guidebook 2012 (ERG). The new safety tool will provide the nation's emergency responders with fast, easily accessible information to help them manage hazardous material incidents.

The mobile ERG will make it easier for firefighters, police, and other emergency first responders to quickly locate the information they need, thanks to an electronic word search function, and will ensure easy reading even during nighttime emergencies.

The 2012 version of the ERG includes new evacuation tables for large toxic gas spills and standard response procedures for gas and liquid pipeline incidents.

"The first 30 minutes are the most crucial when it comes to responding to a hazmat situation," said U.S. Transportation Secretary Ray LaHood. "The new app is both mobile and flexible, and gives first responders the knowledge they need to protect themselves and their communities in an emergency."

PHMSA and the U.S. Department of Health and Human Services National Library of Medicine (NLM) joined forces in producing the two free ERG mobile applications.

Links to download this software are available from the Apple iTunes website at ERG 2012 for iPhone and from the Google Play website at ERG 2012 for Android.

In addition, a version of the ERG is available in NLM's Wireless Information System for Emergency Responders (WISER) application. An instructional video for learning how to use the ERG 2012 is also available on PHMSA's website.

"I always found the ERG to be extremely valuable and believe a copy should be in every emergency response vehicle and in the hand of every first responder in America," said U.S. Fire Administrator Chief Ernest Mitchell.

## DATA Connection

News from the Data Collection & Research Unit  
by Program Coordinator Dave Gullledge

### NFIRS Coding

One of the challenges with the National Fire Incident Reporting System (NFIRS) can be how to code incidents. Knowing how to properly code incident data goes a long way in providing information that is useful all the way to the national level. It also makes it easier to enter incident data after a call.

There are resources available to assist you when it comes to NFIRS coding. The most comprehensive resource available is the NFIRS Complete Reference Guide, which is available online.

In addition to listing available codes for each data field in NFIRS, this guide contains descriptions, definitions, and explains the purpose for each field. The [NFIRS Complete Reference Guide](#) along with a [Coding Questions & Answers guide](#) is available free from their website, or from the [OSFM website](#).

In addition to these guides, the OSFM Data Collection & Research Unit and the NFIRS Support Center are both available during normal business hours to answer your coding questions.

**OSFM - Data Collection & Research Unit**  
503-934-8250 or 877-588-8787 (toll free)  
email: [osfm.data@state.or.us](mailto:osfm.data@state.or.us)

**NFIRS Support Center**  
888-382-3827 - Eastern Time Zone  
[NFIRS online technical assistance](#)

### NFIRS Tips

For incidents involving fire and hazardous materials/conditions, or fire and EMS, use the fire codes. Always use the lowest numbered code that applies to the incident. You will have more opportunity, later in the report, to describe multiple actions taken.

For vehicle fires in a structure, use the mobile property codes (130-138) unless the structure

becomes involved. If the structure becomes involved, the incident is considered a building/structure fire (codes 111 or 112) and the vehicle is considered contents.

For fires confined to noncombustible containers in a building, use codes 113-118 of the structure fire codes when there is no flame damage beyond the noncombustible container.

When entering data, be as accurate and specific as possible. To do this, avoid using codes that end in "0." These are non-specific codes that have the value of "other" and should be used only when absolutely no other code can be used.

Exposures are fires resulting from another fire. In the case of buildings with internal fire separation, treat the fire spread from one separation to another as an exposure. You should not treat multiple ownership of property within a building as exposures, unless they are separated by fire-rated compartments.

### Training Opportunities

The National Fire Academy's *National Fire Incident Reporting System; Introduction to NFIRS 5.0* class is being hosted by the OSFM and the Oregon Department of Public Safety, Standards, and Training (DPSST). This is a 2-day class that will be held on April 24 and 25 at the Oregon Public Safety Academy in Salem. This class, along with lunches, is free to all Oregon fire agencies. Registration deadline is April 10, 2013.

For more information, or to register for this NFA class, [visit the OSFM training webpage](#).

In addition to the NFA class offered in April, the OSFM conducts ongoing monthly NFIRS classes. These classes are held on the last Tuesday of every month from 1 p.m. to 3 p.m. at the OSFM headquarters in Salem. Attendance via webinar will also be available.

Questions? Please contact the Data Collection & Research Unit at 503-934-8250, toll free at 877-588-8787, or email [osfm.data@state.or.us](mailto:osfm.data@state.or.us).

## Tips when applying for grants

To apply and receive an Assistance to Firefighters Grant (AFG) award, you must be registered and have up-to-date information in the online System for Award Management website. SAM replaced the Central Contractor Registry (CCR), which no longer exists. SAM registration is free and required of all federal awardees.

- **New awardees** must register in SAM to receive any federal grant award. If your organization applied for a grant, but has not yet registered in SAM, [visit the SAM website](#) and follow the FAQs and User Guides for help completing the registration process.
- **If you registered previously in the CCR**, you still have to create a new Individual User Account in SAM prior to receiving a future federal grant. You should open an Individual Account as soon as possible and then migrate your legacy (CCR) account. [Visit the online Quick Start Guide](#) for Updating/Renewing Registrations that were in CCR and are now in SAM.
- **Your DUNS information must be correct:** When you create a new SAM account you must use the same email address and DUNS (Data Universal Numbering System) number that you entered when you registered previously in the CCR. **It is critical that you enter the correct DUNS number in your SAM.gov account. If the DUNS number does not match the number and mailing address on record for the grantee on [the Dun and Bradstreet website](#), you will not be able to complete your registration.**
- **Is your SAM profile marked PRIVATE?** If so, FEMA grants management specialists will not be able to verify your active SAM registration. We recommend that you mark your SAM profile PUBLIC. Sensitive banking and financial data are not revealed in the public profile.

**Questions about SAM?** FEMA grants management specialists are available to answer questions about SAM. For Oregon, contact Jackie Lee at [jacqueline.lee@fema.dhs.gov](mailto:jacqueline.lee@fema.dhs.gov).

## Fire grant update

by Hines Lieutenant/Grant Writer Jonathan Manski

The 2012 Assistance to Firefighters Grant (AFG) awards have finally picked back up with two awards for Oregon at the end of February, breaking a two-month hiatus from any awards. I've been told the awards should really pick up now, but we will see if that momentum can overcome the looming sequester crisis.

The 2009 AFG closeout modules should be on the grants website. To check your 2009 award, click on the "closeout" link (if available). Good luck with remembering all the project details required to submit and closeout your award. Some errors persist in the closeout process. Check with your regional grant specialist if you have concerns. The 2010 closeouts should follow soon.

Fire Prevention grant applications went through peer review during the 3<sup>rd</sup> or 4<sup>th</sup> weekend in February. Perhaps some of us are now on track for news from this program soon.

The SAFER program continues to steadily fund Oregon departments. As of now (with eight awards), we have surpassed our eight year average of 7.3 awards per year.

As noted elsewhere in this newsletter, Oregon departments are encouraged to contact the OSFM Data Unit at 503-934-8250 or [osfm.data@state.or.us](mailto:osfm.data@state.or.us) for help in gathering your department's statistics that can answer many of the questions in several of the AFG grant programs.

As always, I encourage anyone with the desire, but not the goods needed, to apply for the fire grant program, to contact me for any help in preparing for the 2013 AFG process.

I know there are a lot of departments with critical needs who haven't yet been able to get in on the action. Even as a non-professional grant guy, I'm available to help jump start those departments who want to engage. Contact me at [jmanski@blm.gov](mailto:jmanski@blm.gov).

Remember, Oregon deserves its share of grant funding, but we need to participate to ensure we get that share.

[Visit the FEMA fire grants webpage](#) for more information.



## Butane $C_4H_{10}$

### Description:

- Synonyms: n-butane, diethyl, butyl hydride
- Colorless gas odorless to a faint petroleum-like odor, may be stench for transportation
- Shipped as liquefied gas
- CAS No.: 106-97-8
- EPA Section 302 EHS: Not listed
- EPA Section 112<sub>R</sub>: 10,000 pounds
- EPA Section 304 EHS: Not listed
- OSHA PSM: Not listed

### NFPA 704 Information:

- Health: 0-1
- Flammability: 4
- Reactivity: 0
- Special: None

### Uses and Occurrences:

- Refined from petroleum
- Uses include fuel for cigarette lighters and propellant for aerosols and insecticide foggers

### Reactivity and Fire Risk:

- Stable under recommended storage conditions
- Flash point:  $-76^{\circ}F$
- LEL: 1.6%; UEL: 8.5%
- Autoignition temperature:  $548.3-550^{\circ}F$
- Vapor density (air = 1): 2.046-2.33
- Specific gravity (water = 1): 0.6
- Boiling point:  $30.9-31.1^{\circ}F$
- Can explode when exposed to flame or when mixed with nickel carbonyl plus oxygen
- Extremely reactive or incompatible with oxidizing materials including nitrates, perchlorates, chlorine, and fluorine
- Incompatibles include strong acids and alkalies
- Avoid heat, flame and sparks

### Health Hazards:

- OSHA PEL: Not listed
- IDLH: Not listed
- Gas is a simple asphyxiant
- Contact with rapidly expanding gas may cause frostbite

### Fire Fighting Measures:

- Extinguishing media: Water spray, dry

chemical, alcohol-resistant foam or carbon dioxide

- Allow gas to burn if flow cannot be shut off immediately
- Containers may rupture or explode when heated

### 2008 Emergency Response Guidebook:

- Shipping name: Butane
- Hazard Classes: Flammable Gases (2.1)
- UN/NA: 1011; Guide # 115 Gases Flammable (Including Refrigerated Liquids)
- Spill: Initially isolate 330 feet in all directions

### Oregon Fire Code: Table 2703.1.1(1)

- Flammable Gas
- Maximum Allowable Quantities (MAQ) per control area:
  - Unprotected by sprinklers or approved storage cabinets: 1,000 ft<sup>3</sup>
  - In sprinklered building, not within approved storage cabinets: 2,000 ft<sup>3</sup>
  - In unsprinklered building, within approved storage cabinets: 2,000 ft<sup>3</sup>
  - In sprinklered building, within approved storage cabinets: 4,000 ft<sup>3</sup>
  - Group when MAQ exceeded: H-2

### Incident Reporting and Information:

- Facilities reporting butane on the Hazardous Substance Information Survey: four
- Hazardous materials incidents reported in Oregon since 1986: one

### References include:

[Cameo chemicals – Butane](#)

[Airgas Inc – MSDS Butane](#)

[CDC Niosh Pocket Guide - Butane](#)

[Sigma-Aldrich – MSDS Butane](#) - (Link select download MSDS)

[EPA List of Lists, July 2011](#)

**For questions or suggestions, contact Aleta Carte at 503-934-8262 or [aleta.carte@state.or.us](mailto:aleta.carte@state.or.us).**

The second factor in this incident was static electricity. Static electricity becomes more of an issue when the relative humidity in the involved space is low. There are likely very few people who have not witnessed static electricity and its fascinating effects. When two dissimilar surfaces are rubbed together, static electricity often results. The slight shock you feel when you walk across the floor in stocking feet and then touch someone or something metal is something we've all done without any real consequence. In the dark, a visible arc is often seen. This natural phenomenon is fascinating to people and they often try to recreate it. Static electricity is why you should touch the metal surface of your car before you fill its gasoline fuel tank, for example. Ireland saw the static sparks in her bedding and had been trying to recreate them a short time before the fire occurred. She did nothing wrong and was just being a kid.

A static arc occurring within an area where gaseous ethyl alcohol is in the flammable range can ignite the flammable mixture.

Once the vapor was ignited, there was a flame "flash-back" to the source of the vapor, in this case, its liquid/gel state where it continued to burn as the liquid/gel off-gases.

A third factor in the ignition sequence resulting in Ireland receiving burns, was olive oil. Because Ireland had a negative reaction to the standard adhesive remover, olive oil served as a substitute to help remove adhesive from her skin. In the process, olive oil soaked into the cotton T-shirt she was wearing in an area close to her sternum. In an effort to remove the olive oil, she used hand sanitizer. She also used the hand sanitizer to clean a table where she had been doing some artwork as a gift to her nurses, just prior to being released from the hospital. As a result, there was more hand sanitizer in the immediate area than would normally be used to just rub on your hands.

None of these factors are really unusual or unreasonably dangerous. In order to have a fire start, we know that three factors must be present: (1) an ignitable fuel source, (2) a heat source sufficient to ignite the fuel and, (3) an event that puts the heat source in the right proximity to the ignitable mixture. Unfortunately, this rare combination occurred

on the front of her T-shirt. The olive oil acted like a wick and as the ethyl alcohol vapors flashed, the flame traveled back to the oil stain and ignited the front of her T-shirt. As a result, she received significant burns even though the flames were quickly extinguished. This rare and accidental combination of factors came together at just the wrong time.

Gordon Graham has stated that "predictable is preventable." In this case, these circumstances were never predicted, or thought of as even a remote possibility, prior to this incident. Recreating this event would require the ability to control all the environmental factors as well as the human actions that resulted in this fire - not an easy task without the aid of a highly sophisticated, laboratory-type fire chamber, and the fact this was never studied prior to this incident. Therefore, it was not predictable. It was purely a rare accident.

Labels on commonly used hand sanitizers indicate they are flammable. At the same time, the percentage of ethyl alcohol in these products is essential to preventing the spread of germs and helping millions of people stay healthy. The benefits of properly using hand sanitizers far outweigh their risks. Personally, I will continue using hand sanitizer as needed to prevent spreading or catching common diseases.

This unusual incident was not easy to figure out. I want to recognize all of the efforts of our OSFM staff and hospital staff who worked together to figure out this fire "puzzle." Special thanks go to Deputy State Fire Marshal Dan Jones who stuck with it; conducted difficult interviews; developed a working hypothesis of the fire cause; then conducted the necessary burn tests to recreate the damage to the T-shirt to determine the most probable cause.

Because of an extremely rare set of circumstances, Ireland spent her 12<sup>th</sup> birthday at the hospital experiencing the trauma of burn recovery instead of at home celebrating with family.

I know you will join me in hoping for her complete and speedy recovery.

