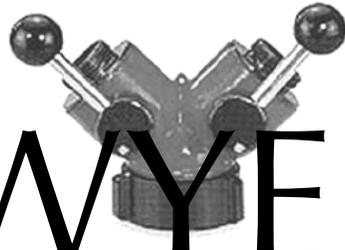


# GATED WYE



February 2014 · Oregon Office of State Fire Marshal · 4760 Portland Road NE · Salem Oregon 97305-1760 · No. 361

## Sparky nominations due February 7th!

The nomination period for the Golden and Silver Sparky awards closes February 7, 2014.

The Golden Sparky recognizes a fire service member or fire agency for outstanding achievement in fire prevention or public safety education. The Silver Sparky recognizes a civilian or a civilian agency in either of the same categories.

Nomination forms are available on the OSFM website. Please submit your completed nomination form with an explanation and examples of the nominee's achievements. Additional award submission information is included on the nomination form.

State Fire Marshal Mark Wallace will present the awards at the Oregon Fire Prevention Workshop taking place March 5-7, 2014 at the Oregon Garden in Silverton.

For more information, contact Sally Cravinho at 503-934-8205.

## Deadline approaching to register for the OSFM/ODF Fire Prevention Workshop

The registration deadline is fast approaching for the Oregon Fire Prevention Workshop scheduled for March 5-7, 2014 at the Oregon Garden in Silverton, Oregon.

Planned sessions include:

- Mitigation School Programs
- Social Media Content Strategies
- A Recipe for Successful Firewise Communities
- Youth and Fire in Oregon
- Teaching Techniques
- Citizen Fire Academy
- Fire Prevention Cooperatives
- Fire Safety for the Deaf and Hard of Hearing Community
- Changing American Families
- And more!

In addition to these sessions there are also pre-workshop classes scheduled March 3-5, focusing on WUI education and an NFPA 1035 Public Educator training.

The workshop is free; three meals will be provided. Lodging, additional meals, and travel expenses are the responsibility of attendees.

Rooms are available at the Oregon Garden Resort. Classes will be held in the Oregon Garden Pavilion. Registration and room reservation deadline for the workshop is February 14.

[Click here to see a list of courses](#), or visit the [OSFM training webpage](#) for other information.

For questions, contact Stephanie Stafford at [stephanie.stafford@state.or.us](mailto:stephanie.stafford@state.or.us) or 503-934-8219 or Tom Fields at [tom.fields@state.or.us](mailto:tom.fields@state.or.us) or 503-945-7440.



## Is it too early to prepare for wildfire?

**W**ith cold weather, snow, fog, freezing rain, and even freezing fog, it's easy to delay preparations for the 2014 fire season. Currently, snow pack levels aren't up to the hoped-for levels in most of Oregon. Although there is still time to make up current winter shortfalls, we shouldn't wait until we know for sure, in order to plan. Forecasters are working on their predictions for the 2014 season and it looks like the next fire season will be much like the last one. However, we have had recent Red Flag Warnings in January and that is unusual. At least three wildfires requiring multi-agency responses occurred just before this newsletter was finalized.

The OSFM mobilized resources for four conflagrations in 2013. It's important to note these fires threatened more than 1,200 homes with an estimated assessed value of more than \$190 million. OSFM-mobilized resources saved 98.7% of the threatened homes last season at a cost of about \$3 million. If the 2014 fire season is similar, communities with wildland interfaces need to take steps now to protect homes and residents facing wildfire risks.

Over time, more and more Oregonians have moved into areas referred to as the wildland/urban interface (WUI). Even though this is one of the great things about living in Oregon, it results in higher wildfire risk. A WUI fire, in its simplest terms, is when fuel consumed by a wildland fire changes from vegetation to homes. Homes are threatened when the flames, heat, and/or flying brands contact the flammable parts of a house.

Remembering that heat is transferred from one combustible material to nearby combustibles (a wall or deck) by radiation, convection, and/or conduction, the three most common ways wildfires extend to homes include:

- Burning embers/flying brands landing on combustible materials or entering a home through vents or other openings,

see **SFM Wallace** page 3

“We saw last season that when effective mitigation was in place, structures survived.”

– SFM Mark Wallace



**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  
503-934-8205

Codes & Technical  
Services  
503-934-8269

Fire & Life Safety Education  
503-934-8236

Community  
Right-to-Know  
503-934-8238

Data Collection & Research  
503-934-8273

Emergency Planning and  
Response  
503-934-8238

Fire & Life Safety  
503-934-8256

License & Permits  
503-934-8264

Youth Prevention  
& Intervention  
503-934-8240



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.

## SFM Wallace

continued from page 2

- Radiated heat from burning vegetation, and
- Combustible fuels on or immediately adjacent to the home ignite and spread the fire.

The NFPA *Firewise Communities Program* states, “A house burns during a wildfire because of its interrelationships with everything in its immediate surroundings – within 100 to 200 feet. What happens within this zone is critical to structure survival.” Keeping an advancing wildfire as a “ground fire” rather than allowing it to become a “crown fire,” especially within a couple hundred feet of structures, can make a big difference in outcomes.

Tree thinning and elimination of ladder fuels is a common and effective practice of WUI mitigation efforts. We saw last season that when effective mitigation was in place, structures survived. We also saw the opposite. The houses destroyed last year simply did not have the recommended mitigations in place when the wildfire advanced and quickly overwhelmed and destroyed them.

Now is the time of year to take actions to mitigate the risks throughout communities with a wildland/urban interface.

Recent national statistics show that for every dollar spent on wildfire mitigation, there is an estimated ratio of loss reduction to cost, of more than five dollars (U.S. Office of Management and Budget statistics).

Like insurance, our hope is we never have to find out what the actual ratio of loss is compared to what we spend on mitigation. However, if fire is impinging on a community, they will be glad they spent money on mitigation.

The Firewise program focuses on what residents can do around their homes to reduce potential loss of life and property to wildfire.

In order to reduce the radiation hazard, property owners can reduce the volume of heavy vegetation within 30 to 100 feet of the homes which will reduce the size and intensity of any flames that get near the structure. To reduce the convection risks, residents should make sure that there are no flammable materials touching the house, such as tall grasses, tree limbs, dead leaves or needles, mulch,

or firewood piles. Having non-flammable roofs and decking, screened openings, and keeping gutters free of leaves and needles will help minimize the likelihood of ignition from firebrands or embers.

The OSFM, with our partner agencies (ODF, USFS, BLM, and others), developed a demonstration project at the Oregon Garden in Silverton that allows visitors to see an example of a home that has undergone wildfire mitigation. Information kiosks around the house explain the theories and practices designed to keep a house from igniting when exposed to a nearby wildland fire.

The National Fire Protection Association produces the *Firewise Communities Program*, which is cosponsored by the USDA Forest Service, the US Department of the Interior, and the National Association of State Foresters. [More information is available on the Firewise website.](#) Some communities in Oregon also have other on-going programs designed to facilitate mitigation efforts in their WUI areas.

## HMEP grant application period now open

The FY 2014-15 Hazardous Materials Emergency Preparedness (HMEP) grant application period is now open until March 5, 2014. The application period is shorter than in previous years due to changes in the grant program.

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, and
- 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).

## New smoke alarm message needs to be “Test Batteries Before Replacing Them”

The OSFM and the Oregon Life Safety Team are encouraging Oregon fire agencies to update their smoke alarm safety messages for Oregon’s unique requirements.

Oregon law requires ionization-only smoke alarms that are solely battery powered to come equipped with a 10-year battery and a hush feature. Some alarms with 10-year batteries are also made to be tamper proof. Because of these requirements the historical national slogan “Change your clock, change your battery,” may not apply to many Oregon households who have alarms with 10-year batteries.

“It’s time for all fire agencies in Oregon to change their message to better reflect Oregon statute,” said State Fire Marshal Mark Wallace.

“Departments need to encourage their constituents to be more knowledgeable about the type of alarm they have and the correct way to maintain it.”

The OSFM encourages Oregon residents to replace any smoke alarm that is 10 years old or older because the sensing devices deteriorate over time.

“We would like to see all Oregon fire agencies stress at least the following three main themes with their smoke alarm education,” said Wallace.

- Test smoke alarms before automatically changing the battery.
- Follow manufacturer instructions when testing and maintaining alarms.
- Replace all smoke alarms 10 years old or older.

The OSFM has several resources available free to any Oregon fire agency to enhance their smoke alarm public education efforts. Visit the [OSFM Fire and Life Safety Education program webpage](#) to view, order, or download fire safety materials.

For questions, contact Stephanie Stafford at [stephanie.stafford@state.or.us](mailto:stephanie.stafford@state.or.us) or 503-934-8219.

## NFPA 1035 training available free, March 3-4, 2014

The OSFM is hosting a free training on NFPA 1035 - Standard for Professional Qualifications for Fire and Life Safety Educator, March 3-4, 2014 at the Oregon Garden in Silverton.

This course offers fire service members responsible for public safety, the opportunity to increase their knowledge and skills related to development and delivery of community-based fire and life safety programs. Whether you teach adults, develop lesson plans for classroom visits, or prepare an open house with interactive activities, it is always important to increase your skills and knowledge as a fire-safety educator.

NFPA 1035 - Standard for Professional Qualifications for Fire and Life Safety Educator provides the job performance requirements for the position. Becoming certified sets you apart from your peers, makes you a good example for others, and shows your commitment to the field.

Students are required to prepare, in advance, a five minute (maximum) presentation on any fire or life safety topic. They may use PowerPoint slides, but not videos. They will deliver the presentation on the second day of training. There will be a short evaluation at the end of the course.

Class schedule: March 3rd, 1:00 p.m. - 5:00 p.m. and March 4th, 8:00 a.m. - 5:00 p.m. Lunch is provided on March 4th. Training will be presented by Hillsboro Fire Department Prevention/Education Division Manager Storm Smith.

For lodging at the Oregon Garden Resort, you must reserve your room by February 14, 2014 to guarantee the government rate. [Rooms may be booked via credit card online.](#) Rooms are based on the government rate of \$83 + 10% tax.

Group ID: FIREPREV  
Password: FIREPREV

For questions about the training or the lodging process, contact Stephanie Stafford at 503-934-8219 or [stephanie.stafford@state.or.us](mailto:stephanie.stafford@state.or.us).

*This course is being held directly prior to the Oregon Fire Prevention Workshop. [Workshop registration and information is also available online.](#)*

## **DATA Connection**

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

### **Residential Structure Fires**

The Office of State Fire Marshal focuses many of its prevention efforts on residential structure fires. That's because the danger of fire is most realized in these particular fires. Although residential fires only account for about 25% of all fires, they are responsible for most of the fire related deaths and injuries.

In 2012, there were 2,811 residential structure fires in Oregon resulting in 201 injuries, 20 deaths, and more than \$63 million in damage. At the time of this article, the 2,964 residential structure fires reported so far for 2013 have resulted in 237 injuries, 36 deaths, and more than \$76 million in damage. Incident reports for 2013 continue to come in, so the 2013 numbers are still growing.

In order to address or solve any problem, one needs first to fully understand the problem. This is no different with residential structure fires. In order to save lives and reduce injuries we need to make sure we understand as much about them as possible. This process begins with accurate incident reporting.

To ensure residential fires are accurately reported, it's important to make sure they are properly coded. This involves making sure two key fields are completed properly – Incident Type and Property Use. These fields are located in the Basic Module of an NFIRS report.

Many times the Property Use is incorrectly coded. An example is a car fire in the driveway of a residence. The Incident Type is correctly coded as 131 – Passenger Vehicle Fire; however the Property Use is incorrectly coded as 419 – 1-or 2-family dwelling. In this situation, Property Use should be coded as 962 – residential street, road, or residential driveway.

In the situation just provided, coding Property Use as 419, would indicate the vehicle caught fire inside the house (hopefully the attached garage), but did not spread beyond the vehicle.

The most common mistake in coding residential fires in Oregon involves outdoor vegetation and trash fires. An example is a brush fire occurring in a privately owned pasture adjacent to the owner's home. What happens is the Incident Type is listed as 142 - Brush or Brush-and-Grass mixture fire, and the Property Use is listed as 419 - 1-or 2-family dwelling. This indicates the brush fire occurred in the house, which is rather unlikely. In this situation, a more accurate description of the Property Use would be 931- Open Land or Field.

The intent of the Property Use field is to specify the use of the property where the incident actually occurred, not the configuration of the building or other details of the property. Although the driveway is used for residential purposes, it is nonetheless still a driveway, not the dwelling, and should be identified as such.

There are usually multiple property uses at the location of a typical single family home in addition to the house itself, such as the driveway, the yard, a storage shed for garden tools, and so on. In cases where a particular property has two or more uses, the Mixed Use Property field should be used. This field captures the overall use of a property.

A good example for use of the Mixed Use Property field would be for a fire occurring in the cafeteria at the local hospital. Where the fire occurred was in the cafeteria (Property Use code 161-Resturant or Cafeteria), but the overall use of the property was medical (Mixed Use Property code 33-Medical use) since it was inside a hospital.

Training on NFIRS is available through the OSFM to all Oregon fire agencies at no cost. If your agency is interested, contact us for more information or to set up a training session. As always, we are available to answer any incident reporting questions.

Contact us at:

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)

# What you need to know about the GHS hazard communication standard

Submitted by Oregon OSHA Program Development Specialist Ellis Brasch

By now, many of you have probably heard about the Globally Harmonized System (GHS) changes to OSHA's hazard communication standard (Oregon OSHA adopted the changes on Sept. 25, 2012). These changes, which apply to most workplaces, are based on the United Nations' Globally Harmonized System for classifying and labeling hazardous chemicals.

The basic framework of the hazard communication standard (1910.1200) has not changed. If you are an employer, you must still prepare a written hazard communication plan when your employees use or may be exposed to hazardous chemicals.

However, by aligning 1910.1200 with the Globally Harmonized System, OSHA changed the way manufacturers must classify hazardous chemicals, the format of material safety data sheets, and the format of labels on shipped containers of hazardous chemicals.

If you have employees who use or may be exposed to hazardous chemicals, here's how the key GHS changes to the communication standard affect your workplace.

- *Safety data sheets:* Safety data sheets (SDS) replace material safety data sheets. The information on the new SDS provides better information about hazards than an MSDS. Also, suppliers must ensure that the safety data sheets for their products follow a new, standardized 16-section format in conveying the information about a chemical's health effects and physical and chemical characteristics. You must train your employees so that they understand the new 16-section safety data sheet format.
- *Labels:* Suppliers must develop new product labels that include signal words, pictograms, and hazard statements for chemicals in each hazard class and category. You must train your employees so that they understand the meaning of each element on the label.

- [Oregon OSHA's guide to the GHS-aligned Hazard Communication Standard](#) includes an overview of Oregon OSHA's hazard communication rules and helps employers develop a hazard communication program.

Oregon OSHA has two quick-reference apps to help employees understand GHS labels and safety data sheets: one in English and one in Spanish. You'll find them under "[Hazard Communication](#)" on Oregon OSHA's "A-Z topics" webpage.

- [GHS Labels and Safety Data Sheets quick reference English](#)
- [GHS Labels and Safety Data Sheets quick reference Spanish](#)

Oregon OSHA's Education Section also has new bilingual training materials available for employers with Hispanic workers. The new materials, which cover the key requirements in the GHS-aligned hazard communication standard, include a training module, overheads, and tailgate sheets. The materials are available in PDF and PowerPoint versions on [Oregon OSHA's PESO webpage](#). Look for "HazCom GHS Training."

## PHMSA issues safety alert on crude oil shipments

The [Pipeline and Hazardous Materials Safety Administration](#) has issued a safety alert to notify the general public, emergency responders, and shippers and carriers that recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude.

Based on preliminary inspections conducted after recent rail derailments in North Dakota, Alabama, and Lac-Megantic, Quebec involving Bakken crude oil, PHMSA is reinforcing the requirement to properly test, characterize, classify, and where appropriate sufficiently degasify hazardous materials prior to and during transportation. [The complete safety alert can be read here.](#)

This advisory is a follow-up to the PHMSA and Federal Railroad Administration [joint safety advisory](#) published November 20, 2013.



## Silicon Tetrafluoride $\text{SiF}_4$

### Description:

- Synonyms: Tetrafluorosilane, perfluorosilane
- Colorless gas with an irritating, pungent odor
- Fumes in moist air
- CAS No.: 7783-61-1
- EPA Section 302 EHS: Not listed
- EPA Section 112<sub>R</sub>: Not listed
- EPA Section 304 EHS: Not listed
- OSHA PSM: Not listed

### NFPA 704 Information:

- Health: 3 - 4
- Flammability: 0
- Reactivity: 0 - 2
- Special: None to water reactive

### Uses and Occurrences:

- Not naturally occurring
- Used in the production of silicon and fluorosilicic acid

### Reactivity and Fire Risk:

- Reactive, Non-flammable
- Flash point: None
- LEL: None; UEL: None
- Autoignition temperature: None
- Vapor density (air = 1): 3.63
- Boiling point: -130.4 to -123° F
- Decomposed exothermically by water or moisture in the air forming corrosive hydrochloric and silicic acids
- Reacts violently with alcohols to form hydrogen fluoride
- Mixtures with sodium are shock sensitive explosives
- Incompatibles include metals, metal salts, acids, alcohols, bases, and oxidizers

### Health Hazards:

- $\text{LC}_{50}$ : 922 ppm
- OSHA PEL: 2.5 mg/m<sup>3</sup> (TWA)
- May be fatal if inhaled or ingested
- Corrosive, causing severe chemical burns to all tissues

### Fire Fighting Measures:

- Extinguishing media: water spray, dry chemical, carbon dioxide
- Use appropriate chemical protective clothing

- Cylinder temps. should not exceed 125° F
- Vapors are heavier than air and may collect in low areas

### 2012 Emergency Response Guidebook:

- Shipping name: Silicon Tetrafluoride
- Hazard Classes: Toxic Gases (2.3), Corrosive Substances (8)
- UN/NA: 1859; Guide # 125 Gases-Corrosive
- Table 1 Spill: First isolate 100 feet in all directions

### 2010 Oregon Fire Code: Table 2703.1.1(2)

- Corrosive
- Maximum Allowable Quantities (MAQ) per control area:
  - Unprotected by sprinklers or approved storage cabinets: Gaseous 810 ft<sup>3</sup>, Liquefied 150 pounds
  - In sprinklered building, not within approved storage cabinets: Gaseous 1620 ft<sup>3</sup>, Liquefied 300 pounds
  - In unsprinklered building, within approved storage cabinets: Gaseous 810 ft<sup>3</sup>, Liquefied 150 pounds
  - In sprinklered building, within approved storage cabinets: Gaseous 1620 ft<sup>3</sup>, Liquefied 300 pounds

### Incident Reporting and Information:

- Facilities reporting silicon tetrafluoride on the Hazardous Substance Information Survey: six
- Hazardous materials incidents reported in Oregon since 1986: none

### References include:

- [Cameo chemicals – Silicon Tetrafluoride](#)
- [Matheson Tri-gas, Inc. – MSDS Silicon Tetrafluoride](#)
- [Airgas Inc. - MSDS Silicon Tetrafluoride](#)
- [Sigma-Aldrich – MSDS Silicon Tetrafluoride - \(Click link on this page to download MSDS\)](#)
- [EPA List of Lists, October 2012](#)

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

# NASFM president comments on Seattle nightclub fire

By National Association of State Fire Marshals President J. William Degnan

(Editor's background note: Just after midnight on January 1, 2014, an arsonist poured gasoline on a carpeted stairway in a Seattle nightclub and set it on fire. Approximately 750 people were in the nightclub at the time.)

Given the recent nightclub fire in Seattle, I thought it would be a good opportunity to revisit the issue of safety in public assemblies and how we can achieve good results in our communities. It appears there were a number of positive issues that culminated in making an arson fire set in an occupied nightclub on New Year's Eve a non-event.

The nightclub was crowded, but likely within their occupant load. An arsonist poured gasoline on the exit stairs and set them on fire. News accounts state staff and a patron used fire extinguishers on the fire with some success. The club's sprinklers also activated, keeping the fire in check.

The entire crowd exited unharmed, and damage was minimized by the combination of fire extinguishers and a sprinkler system – we should remember Wayne Powell's mantra: "Anything that gets wet will eventually dry out; something that burns will never unburn." Adequate exits, trained staff, portable extinguishers, and sprinklers all played important roles in this incident.

If someone set a fire in a nightclub in your state, would the outcome be the same? I suspect the answer is "maybe," so I'd like to remind everyone of the importance of trained crowd managers.

As most of you know, NASFM-endorsed training includes a significant amount of basic fire prevention instruction, including egress maintenance, ensuring fire protection systems are functional, use of portable extinguishers, and following the facility's emergency action plan, among others.

Having trained crowd managers in public assemblies expands our ability to raise the level of safety by placing people with a basic level of fire prevention and overall safety in each facility.

One question arises with some frequency: "Where are trained crowd managers required?" Of

course, the answer is in the code adopted by your state; but consider the following:

- In movie theaters, trained crowd managers should inspect their area of responsibility before each shift, making sure that access is adequately controlled without jeopardizing egress; this will enhance security and safety.
- In restaurants, trained crowd managers should check kitchen hood systems to ensure they will function should a fire occur in the cooking area.
- In stadiums and arenas, crowd managers knowledgeable about rules relating to contra-band will help prevent a crowd from getting out of control.
- In hotel ballrooms, keeping the exits clear of catering carts, etc., will allow timely egress from the ballroom during an emergency.
- For outdoor events, the trained crowd manager will know to activate the emergency plan early in case of approaching severe weather, and will know where to direct the crowd.

These are only a few examples where trained crowd managers will make a significant difference. We can't have inspectors in every assembly occupancy or event, and trained crowd managers can partially fill that gap. I encourage you to use all your regulations, including requirements for trained crowd managers, to make your state as safe as possible. Note that access to the crowd manager training program endorsed by our association is available through the [NASFM website](#).

## Code update courses set for Salem, Roseburg, and Bend

The Oregon Fire Marshals Association has scheduled three, one-day courses covering updates to the 2014 Oregon Fire Code. Classes begin at 8:30 a.m. and end by 4:30 p.m.

February 24, 2014 – Salem

February 26, 2014 – Roseburg

February 28, 2014 – Bend

Cost is \$105 for OFMA members and \$165 for non-members. Training includes manual, lunch, refreshments, and completion certificate. [Register on the OFMA website](#) by February 7, 2014.