

GATED WYE



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OSFM staff donates hundreds of toys to state toy drive

Staff from the Oregon Office of State Fire Marshal raised just over \$1,450 for the 2012 State Agency Toy Drive.

retailers and deliver them to the state capitol.

The state capitol served as the gathering spot for all the

toys purchased by all state agencies. The toys were then distributed by the Salvation Army's Toys for Joy Program to families in need.



Mariah Rawlins (left) and Lisa Walker work on filling their baskets with toys and clothes.

OSFM Community Right-to-Know staff members, who organized this year's OSFM toy fund drive, used the money to purchase toys and clothes from



Gordon Simeral (left) and Jim Mazza selecting toys.

The toy drive also included collection efforts by state offices throughout Oregon and delivered to their local Salvation Army locations.



(from left) Lisa Walker, Art Spond, Gordon Simeral, and Aleta Carte deliver the toys to the capitol.

Emergency Response Unit launches message service

The Office of State Fire Marshal's Emergency Response Unit (ERU) has announced the launch of a new messaging service called AutoMessenger. The audio message service allows staff to communicate important messages to large groups quickly and efficiently.

With AutoMessenger, the ERU can communicate via voice email, phone calls, and SMS (short message service) text messaging. ERU staff have used the system to send program updates to all OSFM Agency Operations Center Activation Teams, HazMat Team Administrators, and Incident Management Team members.

The new audio messaging system will allow easy notifications and updates to all programs and to IMT members and fire defense board chiefs during conflagrations.

For more information, contact Mariah Rawlins at mariah.rawlins@state.or.us or 503-934-8293.

From the desk of the State Fire Marshal



“Someone attacking an elementary school in Newtown or a mall here in Oregon was previously unimaginable...”

– SFM Mark Wallace

Plan for the worst

I intended to write about all of the accomplishments that have occurred during 2012 within the OSFM and among our many partners and collaborators. I am very proud of everyone involved with making our programs, services, and projects successful. So, it would have been an easy task. My thanks go to all of you.

However, too short a time has passed since the senseless acts of two “lone-wolf” shooters during December. Someone attacking an elementary school in Newtown or a mall here in Oregon was previously unimaginable by most people. Like Columbine, the incidents in Newtown, and at Clackamas Mall are forever etched in our minds, and the simple reference brings forth horrific images. Having been a target of a “lone wolf” in the past, my planned topic for this month changed. Unfortunate but true.

I watched the actions of all responders, as most people did, during these two recent tragedies. Due to nearly instant news coverage, we all watched them do everything they could, given the circumstances. The horror of the incident overshadowed the critical response efforts carried out just as the responders had practiced and planned. Jobs were well done; we all just wish the outcome were different.

In these instances we simply have to rely on our best preparations, precautions, and planning in case of another “lone wolf.” We have to do this all of the time to meet our responsibilities, but a “lone wolf” just has to succeed once. They attacked without warning, without obvious patterns, and at a time of their choosing. That makes facing such an incident a challenging task for all of us. Many consider these types of incident as “suicide by cop” incidents. We may never know the truth or understand why.

Such isolated incidents are far more the exception rather than the rule. But in times like these, the questions still come to us. We are in “the business,” so we’re supposed to have answers. But

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**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
503-934-8200**

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OSFM's Donna Disch retires

After 21 years of service, OSFM Policy Analyst Donna Disch retired effective January 1, 2013.



Graduating from Lewis and Clark College with a degree in Business Administration and a sense of adventure, Donna entered the high stakes world of handling purebred Polled Hereford cattle. In a show circuit populated by oil barons, steel magnates, and celebrities, Donna and her team gained fame for establishing one of her cattle (Hotline) as the highest selling young bull at the time (\$1M). This was more than double the value of any other existing show bull at the time. When the economy turned sour the market for high-end breeding stock tumbled and sent Donna in search of a new vocation.

Throughout her time with the OSFM, Disch's responsibilities led her to fill many different roles for the agency.

Donna started her work for the OSFM in 1992 as a Hazardous Materials Deputy/Auditor. In 1996 she took on primary responsibility as the Oregon SAFE KIDS Coalition Coordinator. In this role, she worked with then First Lady Sharon Kitzhaber, local fire and law enforcement agencies, and both public and private organizations to develop coalition chapters throughout the state. Within two years, Oregon had a national model for development recognized by the National SAFE KIDS Coalition. In 1998, the Oregon SAFE KIDS was recognized as the nation's outstanding State SAFE KIDS coalition.

In 2002, Donna moved into the roles of program coordinator/public information officer where she spearheaded development of Community Wildfire Protection Plans in communities at risk of wildfire by working with state and federal partners along with rural fire departments and their communities. During this period she also initiated the first group of ham radio operators which formed the communications group now part of the OSFM's incident management teams.

Donna became the OSFM's senior policy analyst in 2006 where she effectively collaborated with fire service partners and agency managers in developing policy and priorities.

In her private life, Donna has been equally as busy. She has been a member of the Mt. Hood Ski Patrol since 2000, volunteering as an emergency responder for Meadows, Ski Bowl, Timberline and their surrounding wilderness trails. She has also spent years as an active Dragon Boater where she participated in races throughout the Northwest and Canada.

"The OSFM has benefited greatly from Donna's tremendous work, passion, and dedication for more than 20 years," said State Fire Marshal Mark Wallace. "Donna may be leaving the OSFM but her legacy of accomplishments and contributions to the public safety of all Oregonians will always remain."

SFM Wallace

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in the end, there may be no answers. However, remember that planning, and exercising those plans, makes a difference in prevention and response to incidents of all kinds.

At the same time, remember that we can restrict people from getting into many locations such as schools, but we can't restrict their exit. The next incident could be a fire rather than a "lone-wolf" shooter. This relates to the most common questions now being asked on behalf of schools since the Newtown tragedy.

Remember the Woodburn High School fire? All of those fire drills the students, faculty, and staff practiced over the years became a critical skill and important action as soon as the alarm sounded for a real fire. It was trained and practiced behaviors that made the difference in the successes in Woodburn.

As we begin the New Year, resolve to celebrate life, enjoy your successes, and spend time with your family and friends. As always in the fire service – plan for the worst, but always hope for the best. Thank you for your efforts in 2012 and best wishes for a great 2013.

Caulking Fire Sprinklers for Energy Code Compliance

By Jeff Hugo, CBO

(Reprinted with permission from the *Journal of the National Fire Sprinkler Association*)

Caulk. It ranks up near the universal triage practice of duct tape, tie wire and glue. Its use in the sprinkler business can be beneficial, but overzealousness with the caulk gun can have deadly and costly results.

Energy and Green codes are being developed and adopted at a quick pace. We are seeing energy conservation at new levels throughout the nation. With this rise, a lot of specialty products and contractors enter the scene with good intentions, but with practices that need to be corrected.

Energy codes go beyond prescribing minimum insulation R-values. The IECC (International Energy Conservation Code) addresses the entire building envelope. Part of achieving this minimum energy conservation is to control or stop air leakage through the air barrier or building envelope by penetrations. Sprinklers, especially pendent sprinklers, are being considered as penetrations through this air barrier, and are being caulked. Caulking is being installed where the cover plate contacts the ceiling material or in the gaps caused by the escutcheons in an attempt to meet air leakage requirements within the energy codes.

In our research of the IECC, we don't find that the practice of caulking around fire sprinklers is permissible. Section C402.4.2 of the 2012 IECC states that the penetrations in the air barrier shall be caulked, gasketed or otherwise sealed in a manner compatible with the construction materials and location. Caulking the sprinkler, escutcheon, or cover plate could delay, cease or interrupt the flow of the fire sprinkler. In cases when a concealed pendent fire sprinkler is used, the caulk may adhere the cover plate to the ceiling material and severely delay the fast response of the sprinkler.

There are some sprinkler manufacturers who have a seal or gasket installed on the cover plate or escutcheon for the installation of sprinklers in clean rooms. These same sprinklers may be of benefit to those trying to cut down or eliminate air leakage in the building envelope. The same IECC section above, also states that the "sealing materi-

als shall be appropriate to the construction materials being sealed." Caulk and other sealants are never compatible with sprinklers, escutcheons and cover plates. Building designers and contractors may consider sealing from the back side or beneath the escutcheon or cover plate as a solution. This



practice would be very similar to how through-penetration firestops (filling the annular space) are installed, however keep in mind, these fire-rated penetration assemblies are tested and listed. To parallel this practice with a foreign sealant or caulk may sound reasonable but without knowledge of fire sprinklers, the on-site application will cause the same delays and damages noted in this article. In fact, some caulks and sealants are chemically incompatible with certain piping and the pipe manufacturers should be consulted prior to applying any material. The fire sprinkler, escutcheon and cover plate are designed to fit together without any adhesive. Escutcheons and cover plates can have gaps or spaces that are required to meet certain specification tolerances for activation of the sprinkler, but in most cases the escutcheons and cover plates should fit tightly to the wall or ceiling.

Furthermore, the intent of the IECC (Section C101.3) is not "intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances." When fire sprinklers are installed or required by other codes such as the IBC, they are installed according to those referenced standards. Fire sprinklers are installed by NFPA 13 (Standard for the Installation of Sprinkler Systems), NFPA 13R (Standard for the Installation of Sprinkler Systems in Residential Occupan-

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DATA Connection

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

The importance of incident reporting

The fire service, Office of State Fire Marshal (OSFM), and outside agencies all have critical needs for incident data:

- Your department can use the data to measure the effectiveness of its operations, identify problems, improve resource allocation for combating fires, and identify training needs. By analyzing your incidents and examining trends, you can answer several questions, such as: *How are our response times doing? Why are an unusual amount of fire service injuries occurring? Is an education program needed to reduce fires of a particular cause?* The data helps to measure effectiveness of your operations and is required to apply for grants.
- OSFM and outside agencies need the incident data to educate the public in death and injury prevention, protection of its property and contents, and the range of services that the fire service provides. We furnish data for fire departments, communities, and other health and safety organizations to qualify for grants and funds. In addition, we contribute data to identify and support changes in fire and building codes, and address consumer product recalls.
- Every fire chief is required to provide OSFM with a full report of every fire occurring within their jurisdiction (ORS 476.210). The investigating officer of a fire is required to furnish a report to OSFM within seven days of the incident (ORS 476.220). This allows us to respond to requests for information regarding recent incidents. It also allows for timely identification and analysis of trends occurring within the state.

Your department's data is an important part of the Oregon fire picture, portrayed in OSFM's Annual Report. Your data is also submitted to the National Fire Incident Reporting System (NFIRS), the national database, and included in overall U.S. fire analysis.

Fire department incident data is used to market the importance of what the fire service does, thereby ensuring that those inside and outside the industry will better understand the fire service's role and value. This translates into more resources and financial support for the fire service. If the data is not provided, or is not accurate, the fire service will struggle to justify its budgets, resources, and worth.

"For the fire service to be effective today, the need for good documentation is crucial for showing its worth in this time of budget constraints and cuts."

– Marion A. Long, National Fire Data Center,
U.S. Fire Administration

It's That Time of Year Again!

All NFIRS reports for 2012 need to be entered into Fire Bridge (or text files submitted to the OSFM) by January 31, 2013.

NFIRS reports with 100% validity are submitted to the National NFIRS database. However, reports with less than 100% validity can and will be used at the state level for analysis. Please enter/submit your reports even if they are not complete. Reports can be corrected and/or updated with additional information at any time.

For questions about end-of-year reporting or how to check to make sure all your reports are 100% valid, please contact the OSFM Data Unit.

A sincere thank you to everyone who has taken the time to capture, enter, and/or submit their agency's incident data. Your efforts are not only truly appreciated, but they also make a difference!

Happy New Year

from the staff in OSFM's
Data Collection & Research Unit.

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.

January 27 is Fire Service Appreciation Day

In 2007, the Oregon Legislature passed House Joint Resolution 25 designating every January 27 as Fire Service Appreciation Day in Oregon.

As part of the resolution, the Legislative Assembly and the Office of State Fire Marshal encourages citizens and the Oregon fire service to partner in honoring the service of past and present members of the fire service.

State Fire Marshal Mark Wallace encourages all fire agencies to send in photos and a description of the event your community holds so we can recognize it in a future issue of the Gated Wye newsletter.



Contact Rich Hoover at richard.hoover@state.or.us or 503-934-8217.

School guide to evacuation planning available

The OSFM has a free school resource guide to evacuation planning, available to any Oregon School or fire agency looking to partner with their local schools on planning and practicing emergency evacuations.

The guide provides information about conducting drills for fire, earthquake, shelter-in-place, lockdown, and lockout. The last two are particularly timely, given the recent tragedy at Sandy Hook Elementary School in Newtown, Connecticut.

The guide was developed in partnership with the Oregon Fire Marshals Association, Oregon Code Committee, Oregon Emergency Management, the Oregon Department of Education, the School Resource Officers Association, and Special Districts of Oregon.

To request copies of the resource guide, contact Krista Fischer at 503-934-8240 or krista.fischer@state.or.us. You can also [view the guide on the OSFM website](#).

Fire grant update

by Hines Lieutenant/Grant Writer Jonathan Manski

If you're reading this edition of the Gated Wye, the world did not end on schedule. If it did.... don't bother reading any further.

Despite all the recent national distractions, FEMA is slowly gearing back up and passing out 1199A's and making award notifications..... S L O W L Y.

Hopefully after the first of the year, things will quickly ramp up. All of the paper applications, those submitted by hard copy due to deadly storms back east, have finally been scored.

Turndown notices will likely start this month for those not scoring high enough to make it to the Peer Review.

For Oregon departments, we haven't seen an Assistance to Firefighter Grant award since September 21, *Sigh.*

On the other hand, we have had some success in the Staffing for Adequate Fire and Emergency Response program giving out hiring awards for four departments since the beginning of December.

You have about three weeks left to apply for the Fire Prevention & Safety grant program, which closes on January 18, 2013.

I hope your New Year resolutions include continuing to work hard with your grant writing program and perhaps taking the time to help another department struggling to be successful in theirs.

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





Cadmium Oxide CdO

Description:

- Synonyms: Cadmium (II) oxide, cadmium fume, cadmium monoxide
- Yellow brown to red-brown powder
- CAS No.: 1306-19-0
- EPA Section 302 EHS: 100/10,000 lbs
- EPA Section 112_R: Not listed
- EPA Section 304 EHS: 100 lbs
- OSHA PSM: Not listed

NFPA 704 Information:

- Health: 3-4
- Flammability: 0
- Reactivity: 1
- Special: None

Uses and Occurrences:

- Naturally occurring
- Used as an ingredient in pigments and electroplating baths
- Used in electrodes for storage batteries

Reactivity and Fire Risk:

- Stable
- Non-flammable
- Potential for dust explosion
- Reacts violently with magnesium

Health Hazards:

- OSHA PEL: .0005 mg/m³ (TWA) (as cadmium)
- IDLH: 9 mg/m³ (as cadmium)
- Oral LD₅₀: 72 mg/kg (rat)
- Lethal exposure for humans has been established at 50 mg/m³ (cadmium) for one hour for cadmium oxide dust and 1/2 hour for cadmium fume
- Effects may be delayed for hours
- Known human carcinogen, NTP Group A and OSHA
- Inhalation may cause headache, dizziness, high temperature, pneumonia, collapse, and severe pulmonary edema resulting in death
- Ingestion may result in increased salivation, nausea, vomiting, dizziness and loss of consciousness
- Chronic effects may include liver and kidney damage

- May cause irritation to eyes and skin

Fire Fighting Measures:

- Extinguishing media: Dry chemical, foam, carbon dioxide or water fog

2008 Emergency Response Guidebook:

- Shipping name: Cadmium compound
- Hazard Classes: Toxic Substances (6.1)
- UN/NA: 2570; Guide # 154 Toxic and/or corrosive (Non-Combustible)
- Spill: Initially isolate 150 feet in all directions

2010 Oregon Fire Code: Table 2703.1.1(2)

- Toxics
- Maximum Allowable Quantities (MAQ) per control area:
 - Unprotected by sprinklers or approved storage cabinets: 500 pounds
 - In sprinklered building, not within approved storage cabinets: 1,000 pounds
 - In unsprinklered building, within approved storage cabinets: 1,000 pounds
 - In sprinklered building, within approved storage cabinets: 2,000 pounds

Incident Reporting and Information:

- Facilities reporting cadmium oxide on the Hazardous Substance Information Survey: 7
- Hazardous materials incidents reported in Oregon since 1986: None

References include:

[NOAA Cameo chemicals – Cadmium oxide](#)
[CDC NIOSH Pocket Guide - Cadmium](#)
[Sigma-Aldrich – MSDS Cadmium oxide](#)
[Acros Organics- MSDS Cadmium oxide](#)
[EPA List of Lists, July 2011 \(4.7MB\)](#)
[OSHA Cadmium Standard 29CFR 1910.1027](#)

For questions or suggestions, contact Aleta Carte at 503-934-8262 or aleta.carte@state.or.us.

Sprinklers

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cies Up to and Including Four Stories in Height) and NFPA 13D (Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes) along with IRC Section P2904.

These codes and standards require that all fire sprinklers, escutcheons and cover plates be listed and installed according to that listing. The testing and listing process (of fire sprinklers, escutcheons and cover plates) does not take into account any additional field applied materials on the sprinkler, escutcheon and cover plate, such as: paint, caulk, drywall compound, and other construction materials. This prohibition is not only reiterated, but is enforced by NFPA 13 and NFPA 25 (Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems) as both of these standards require full replacement of the affected components when found. When a fire sprinkler is properly installed, the escutcheon and/or cover plate should adequately seal the penetration.

While fire sprinkler contractors and AHJ's are well versed on these requirements, they should spread the word on their job sites to avoid jeopardizing life safety systems. Energy codes are new in a lot of areas of the country, so be aware of the following:

- NFPA 13, Section 6.2.6.2.2 and 6.2.6.4.4 along with NFPA 25, Section 5.2.1 prohibit caulk on fire sprinklers and require replacement when coated.
- Energy codes may or may not be in effect at the time of construction, but is common practice to caulk all gaps in building materials.
- Speak to the designers, architects, specification writers, painters, building owners and building maintenance before, during and after the construction about caulking fire sprinklers, escutcheons and cover plates.
- Existing buildings where NFPA 25 inspections are being performed may be updated, renovated or repaired in between inspections to obtain energy credits. Be on the lookout for newly caulked sprinklers.

- Speak with fire sprinkler manufacturers. Many have solutions to comply with these energy code requirements.

- Install fire sprinklers so the escutcheons and cover plates fit correctly against the wall or ceiling. Leaving loose escutcheons and gaping cover plates will encourage caulking or adhesives after leaving the site.

- Consider sidewall sprinklers. Interior sidewalls are not part of the building envelope, therefore exempt from air sealing.

Save the Date

The 2013 Fire Defense Board Chief training and meeting is scheduled to take place during the annual Oregon Fire Chiefs conference, planned for the first full week in May 2013. Specific days and times will be released as they are confirmed.

For more information, contact Mariana Ruiz-Temple at 503-934-8238 or mariana.ruiz-temple@state.or.us.

Join the OSFM on Twitter and Facebook

The OSFM is now on Twitter (@OSFM) and Facebook. We're excited to add these social media outlets to our communication toolbox to enhance our outreach to the public, fire agencies, and other stakeholders. Join us!

