GATED WYE

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Hazmat Rail Response Program update

In July 2015, Governor Kate Brown signed HB 3225 into law. This legislation provides for the OSFM to centralize training, preparedness, and response planning efforts with a specific focus on oil or hazardous material spills or releases that occur during rail transport.

The following are highlights of the OSFM progress to date:

Rulemaking: A draft rule has been developed, and upon stakeholder review and approval the OSFM will proceed to formal adoption and implementation in early 2017.

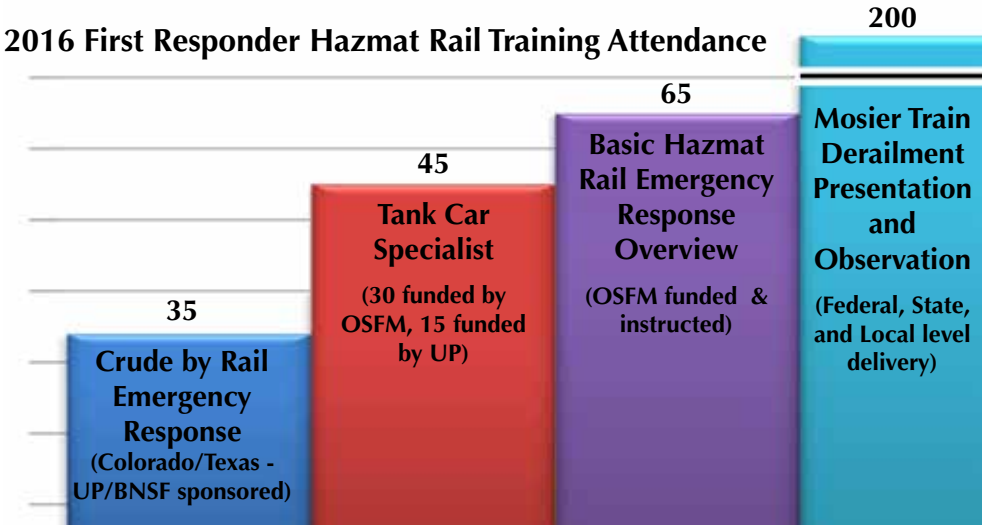
Hazardous Materials by Rail Emergency Response Plan: This coordination plan, in development, will complement existing regional hazmat response team plans and geographic response plans, the Northwest Area Contingency Plan, emergency support functions #4 and #10, and serve as an annex to Oregon's emergency operations plan.

Equipment: Union Pacific and Burlington Northern Santa Fe railroads provided eight foam firefighting trailers that are strategically placed throughout the state where the majority of crude oil and other hazmat commodities travel. The trailers are stationed at local fire departments.

Inventory: The OSFM is uploading spill response equipment information into the online public database known as the Western Response Resource List. This list identifies various types of response equipment available from public and private organizations in the Pacific Northwest.

Training: The OSFM is delivering three levels of training: Basic Hazmat Rail, Hazmat Rail Emergency Response Operations, and Tank Car Safety. The goal of the TCS course is to train several hazmat team members from each region to a higher level of expertise.

In 2017, the OSFM will focus on pre-planning, interagency coordination, training, and exercises. Oregon's success will come through close coordination and cooperation of all agencies and maintaining a high level of accountability in preparing for future incidents.



From the desk of the state fire marshal

> . . . . your continued effort may be the one that saves a life.
>
> – Jim Walker

Tackling an old problem

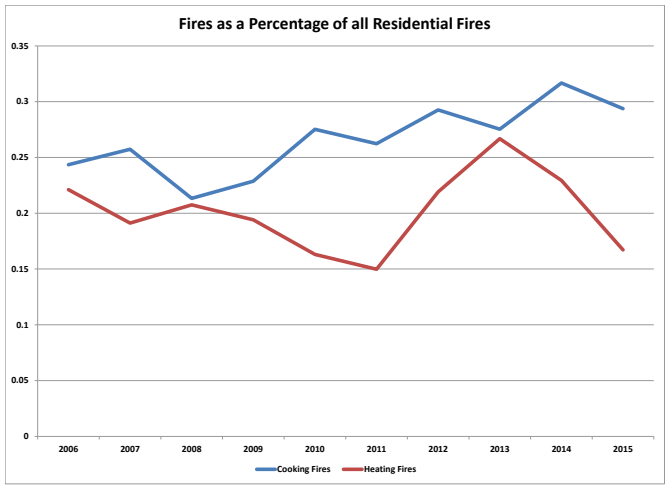
With the end of Fire Prevention Month, I want to thank all of the Oregon fire agencies for their efforts to increase public awareness on the importance of having working smoke alarms.

As we move into the winter months we need to sharpen our focus on prevention and safety messages around home heating and cooking safety. These fire hazards are a constant issue and now is the time to get the message out.

Focusing on fire safety results in saving lives. We in the Oregon fire service need to ask that challenging and difficult question, "Are we focusing enough?"

As you can see by the graph below, the 10-year trend shows that heating and cooking-related fires continue to represent 40 to 50 percent of reported residential fires.

Just in the past five years, cooking and home heating-related fires have killed 17 people, injured 279, and resulted in more than $69 million in property loss.



The danger with home heating is not a recent issue. Our first fire chief, Benjamin Franklin, was warning residents in Philadelphia to be extremely careful when moving hot coals from one fireplace to another when heating their homes, as firebrands could fall into cracks in the floorboards.

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State Fire Marshal
Jim Walker

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So here we are, more than 280 years later, causing us to ask ourselves, can we do more with less and step up our efforts to achieve a change in behavior to mitigate these fires?

Another element of human behavior that plays a role in deaths and injury involves having and practicing a home escape plan.

Please check out our new webpage on this issue and how you can order available materials free for your agencies' education effort.

We all know our fire problem will never completely go away, but we must not rest on our past education success or become complacent in our belief that we have gotten it "as low as it will go," because your continued effort may be the one that saves a life.

Home fire escape planning education

Oregon fire data demonstrates that fire victims are attempting to engage in fighting fires which results in injury and there is an educational opportunity about when to fight the fire and when to leave the firefighting to the professionals. Data also reports egress problems where there were mechanical obstacles to the exit, locked exits, inappropriate exits, or other problems with exiting.

Between 2010 and 2015, Oregon fire agencies reported 1,107 injuries and 189 deaths that occurred as a result of home fires. During this time, the highest percentage of fire injuries occurred between 6 p.m. and 9 p.m.

The leading activity at the time of injury (35%) was attempting to control a fire. Forty-nine percent of those fires originated in kitchen areas. Based on the data during this time period, people are at least three times more likely to be injured while attempting to control a kitchen fire than any other type of home fire.

Sixty-eight percent of the injuries resulting from attempting to control a fire were males, the majority of which (58%), were between the ages of 20 and 49.

Where factors contributing to injuries were identified, nearly a third (31%) involved problems related to exiting. Based on the data for this time period, when a home fire occurs, people are at least twice as likely to be injured as a result of an egress problem than any other factor.

Only 6% of the fatalities were reported as attempting to control the fire at the time of death/injury. Sleeping and escaping were the leading activities, accounting for 31% of all deaths.

Looking at factors contributing to death/injury, 37% were egress related – egress blocked, chose inappropriate exit, mechanical obstacles, etc. Based on the data for this period, when a home fire occurs, people are nine times more likely to be killed as a result of an egress problem than any other factor.

The OSFM recommends that fire agencies expand public education on home fire escape planning. The OSFM also recommends improving messaging associated with fire control attempts. Efforts are recommended to increase targeted messages to ensure the safe escape of Oregon's residents and to leave the firefighting to the professionals unless the fire is small in nature and can be easily extinguished.

The OSFM has launched a new web page to focus on home fire escape planning and you can order materials to support your public education campaigns. Please follow us on social media to share our posts related to this topic. There will be a post on each Wednesday in November.

Twitter @OSFM

Facebook @OregonStateFireMarshal

CODE Corner

by OSFM Deputy David Mills

Extension Cords

As outlined in OFC Section 605.5, extension cords are to be used on a temporary basis, and not as a substitute for permanent wiring. When used, extension cords shall be in good condition and be the appropriate size and type for the application. When an extension cord is damaged, it shall be discarded and replaced. Repair of cords by electrical tape is not permitted. Do not daisy chain extension cords (i.e., plug together several extension cords to create a longer cord).

Extension cords shall not be extended through walls, ceilings, floors, or under doors or floor coverings. Extension cords should be used in a manner so that they do not present a tripping hazard. Products are available for protecting the extension cord and reducing the hazard when it is on the floor. As a way of limiting the use of extension cords, their use is restricted to portable appliances. The fire code reference to "portable" primarily denotes smaller, often-relocated appliances.

Power Strips

A relocatable power tap (RPT), more commonly known as a "power strip" as outlined in OFC Section 605.4.1 & 2, is designed to provide a degree of protection from surges in voltage and filtering for electrical use. The restrictions on RPTs are similar to those on extension cords. RPTs shall not be used as a substitute for building wiring. RPTs are intended to be plugged directly into a permanently installed receptacle and are not intended to be connected in series or connected to other RPTs or extension cords. Typically they are available in lengths of 3 to 15 feet, with some listed up to 25 feet.

The testing requirements of UL 1363 are applied to relocatable, cord-connected power taps rated at 250 volts AC or less and 20 amps or less. Unless otherwise listed, these devices are intended only for indoor use as an extension of a branch circuit for general use to supply tools, computers, audio, and video equipment, etc.

Nominations open for *Smokey Bear Awards*

The Cooperative Forest Fire Prevention (CFFP) Program is inviting nominations of deserving candidates for the 2017 *Smokey Bear Awards*. To increase public recognition and awareness of the need for continuing wildfire prevention efforts, the U.S. Forest Service, the National Association of State Foresters, and the Ad Council sponsor the national *Smokey Bear Awards*. These awards recognize outstanding service in the prevention of human-caused wildfires.

Eligible for nomination are individuals, agencies, or organizations that have made outstanding contributions to the prevention of human-caused wildfires.

Wildfire prevention service includes, but is not limited to: efforts in education, law enforcement, and engineering; journalism and media coverage; advertising campaigns; informational programs; training; risk assessment; prescribed fire used for prevention; committee leadership; volunteerism; fund-raising; providing support services for fire prevention (e.g. legal services); and individual presentations. Project(s) must have been completed and cover at least a two-year period.

Activities relating to fire prevention for structures do not qualify for the *Smokey Bear Awards*. Nominations that primarily focus on developing defensible space, reducing fuels, etc., should be submitted for Wildfire Mitigation Awards.

This merit award has been bestowed upon well-deserving groups and individuals annually since 1957 for outstanding work and significant program impact on wildfire prevention.

Nominations are due December 12, 2016.

For nomination forms and complete nomination information, visit the *Smokey Bear Awards* website.

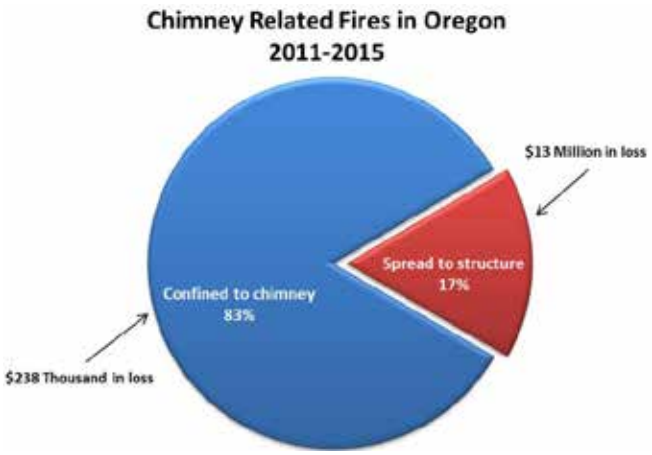
DATA Connection

News from the Analytics & Intelligence Unit
by Program Coordinator Dave Gulledge

Chimney Fires

As temperatures begin to drop, Oregonians will start using their fireplaces and woodstoves, and fire agencies will find themselves responding to chimney fires. The largest percentage (65%) of chimney related fires occur between November and February.[1] During these months, chimney fires account for nearly one out of every three home fires.

Looking at houses and apartments in Oregon from 2011 through 2015, there were a total of 2,968 fires that either were confined to a chimney/flue or started in a fireplace, chimney, or flue and extended to the structure. During this period, these fires resulted in 13 injuries, and more than $13 million in estimated damage.



Most fires involving chimneys are confined to the chimney or flue (see graph). These confined fires rarely result in serious injury and account for just 2% of estimated losses in chimney related fires. The average estimated loss per fire that was confined to the chimney or flue was $96.

Conversely, 17% of chimney fires spread to become building fires, accounting for 98% of estimated losses in chimney related fires.

The average estimated loss per fire that was not confined to the chimney or flue was more than $26,000.

Additional chimney related fire statistics:

- Half of all chimney fires occurred between 4 p.m. and 9 p.m.
- There has been a 7.5% average decrease in chimney fire incidents over the last five years.
- The average dollar loss from a chimney fire that spreads to the structure is about 270 times greater than the average dollar loss from a chimney fire confined to the chimney.

The trends, issues, and threats associated with chimney fires in a local community can easily be identified through complete and accurate incident reports.

By understanding the prevalence and causes of chimney fires in their local jurisdictions, fire agencies can lead public education campaigns to help prevent these types of fires.

Reminding residents of the following can help prevent fires:

- Have chimney and woodstove flues inspected and cleaned each year by a qualified chimney sweep,
- burn only dry, seasoned wood; it causes less buildup in the chimney,
- never use a flammable liquid such as lighter fluid, kerosene, or gasoline to start a fire.

In addition, educating residents about safe practices, such as using a fireplace screen, keeping combustibles away from heat sources, and properly disposing of ashes will also translate to fewer fires.

The Office of State Fire Marshal has educational materials covering home heating and many other topics. You can review and order materials on the OSFM website.

1 All statistics in this article are based on incidents that occurred between 2011 and 2015 and were reported by Oregon fire agencies to the Office of State Fire Marshal as of September 26, 2016.

Questions? Please contact the Analytics & Intelligence Unit at 503-934-8250, toll free at 877-588-8787, or email osfm.data@state.or.us.

OSFM branch spotlight: Emergency Response Services

With responsibilities for oversight of the Regulatory Services Unit, Oregon's Local Emergency Planning Committees, the State Emergency Response Commission, and the Regional Hazardous Materials Emergency Response Teams program, Assistant Chief Deputy Michael Heffner sees critical and complimentary links between these programs.

"The Emergency Response Services Branch offers emergency planners and public safety officials access to hazardous substance inventories stored in Oregon communities, an emergency planning-focused group of community stakeholders, and a network of hazmat training and response resources," said Heffner.

Heffner sees three priorities for his branch: strengthening the core capabilities and sustainability of Oregon's regional hazmat response teams, growing and supporting the number of LEPCs in Oregon, and marketing and delivering outreach to the public and industry on OSFM's regulatory programs.

Oregon's 13 regional hazmat teams face an ever-evolving risk of hazardous materials threats. Maintaining the teams' core capabilities requires continual attention to training and equipment needs.

"Personnel and equipment are a long-term investment," said Heffner. "Hazmat technician succession planning and equipment replacement requires a strategic road map and funding. The teams are a tremendous asset in that planning. Serving as subject matter experts, the teams create committees to research options and recommend updates to training curriculums, equipment replacement, and other administrative aspects of the program."

Local emergency planning committees are an opportunity to connect emergency officials with industry representatives in their communities that store extremely hazardous substances (EHS). LEPCs help industry meet federal requirements for engaging local emergency officials in planning for an accidental release of their EHS. Much of the emergency planning work is already taking place, the creation of an LEPC simply formalizes the process.

In 2015, the OSFM formalized the designation of 36 planning districts through administrative rule – one for each county in Oregon. In some cases, it makes sense for one or more counties to jointly establish LEPCs. Whether operating individually or by partnering with their neighboring county, the goal is to have an LEPC process in each county.

Within the Emergency Response Services Branch, the Regulatory Services Unit administers seven compliance programs including:

- Community Right-to-Know
- Non-Retail Fueling
- Liquefied Petroleum Gas
- Fireworks
- Explosives Storage
- Fire Standard Compliant Cigarettes
- Novelty Toy-like Lighters

Authorized by statute, these programs seek to ensure the safe installation, storage, and use of hazardous substances and other products. Every day, staff in these programs collect and process records, audit facilities, and work with industry to correct deficiencies, all to protect Oregonians. "We want to increase awareness of these programs so that the public knows what information is available to them and to educate businesses on how to comply with the programs that apply to them," said Heffner.

For Heffner, recently moving from city to state government is certainly an adjustment, but his connection to the fire service isn't lost. In many ways it makes the connection more expansive.

"The Office of State Fire Marshal works with the Oregon fire service as an essential partner and as a customer. I see this collaborative and servant approach in everything, from mustering up task forces through our Agency Operations Center to developing statewide firefighting and hazmat response plans to building capacity by staging firefighting foam trailers around the State."

Heffner looks forward to his time ahead with OSFM and the opportunity to build relationships and learn more about the needs and challenges of fire departments throughout the State.
He can be reached at (503) 934-8030 or michael.heffner@state.or.us.

Chemical of the month

Carbon Tetrachloride CCl_4

Description:
- Colorless, non-flammable liquid with sweet distinctive odor.
- Vapor is 5.3 times heavier than air.
- Hazard Classes: 6.3 acute health hazard; 6.4 chronic health hazard.
- CAS No.: 56-23-5 UN-NA No.: 1846

NFPA 704 Information:
- Health -- 3
- Flammability -- 0
- Reactivity -- 0
- Special Notice -- none given

Uses and Occurrences:
- Used as a solvent for oils, fats, lacquers, varnishes, rubber, waxes, and resins.
- Fluorocarbons are chemically synthesized from it.
- Used as a refrigerant.
- Used for metal degreasing, agricultural fumigant, chlorinating organic compounds, and production of semiconductors.
- Also used as a drying agent for spark plugs, drying cleaning agent, and fire extinguishing agent.
- Note: Not permitted in products intended for home use.

Reactivity and Fire Risk:
- Reacts explosively with alkali metals such as sodium, potassium, and magnesium.
- Non-flammable liquid.
- Do not use to extinguish fire!! Was used in fire suppression systems, and hand held glass bombs used to put out fires. It was later determined to be very toxic. Carbon tetrachloride also breaks down thermally to produce hydrochloric acid and phosgene gas.

Health Hazards:
- Vapor is irritating to eyes, nose, and throat.
- Liquid will defat skin and is irritating to eyes.
- Toxic by ingestion, inhalation, and skin absorption.
- A narcotic. May cause central nervous system depression.
- Threshold Limit Value (TLV): 5 ppm in air.
- Following acute exposure, signs, and symptoms of liver and kidney damage may occur.
- Listed as a carcinogen by OSHA.

Personal Protective Equipment:
- Normal conditions: Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear chemical resistant eye protection. In atmospheres at or above 100 ppm, a supplied air or SCBA must be used.
- Fire conditions: Wear special protective clothing and positive pressure SCBA.

Inspection and Storage Tips:
- Store in cool, dry, well-ventilated location.
- Must be separated from any alkali metals.

Chapter 50 OFC Information:
- No physical or health hazards as regulated in the Oregon Fire Code.

Incidents and Reporting:
- There have not been any reported hazardous materials incidents involving carbon tetrachloride.
- The Annual Hazardous Substance Information Survey shows three companies in Oregon that have reportable quantities of carbon tetrachloride.

For questions or suggestions, call 503-378-6835.

Free Fire Inspector I training

Chemeketa Community College and the Oregon Department of Public Safety Standards and Training are offering a free Fire Inspector I training November 28 – December 2, 2016 at the Oregon Public Safety Academy in Salem, Oregon.

Class size is limited to 24 students. To register, contact Tania Kleinschmit at 503-584-7341 or tania.kleinschmit@chemeketa.edu.

Lodging is available, but to qualify you must be traveling more than 75 miles. DPSST will cover the cost of lodging and meals if you qualify.

Instructor is Jimmy Stewart. Dress is business casual, no jeans allowed.

Registration Open

Oregon Office of State Fire Marshal
2017 Task Force Leader Symposium
Best Western Agate Beach
Newport, Oregon

Tuesday, February 28: 1000 - 1700

Wednesday, March 1: 0830 - 1530

Register online

This training is intended for current task force leaders and assistants, and those anticipating to fill the role in 2017

OSFM staff changes

- Emergency Response Unit Program Assistant Fraser Wick, promoted to Emergency Response Unit Readiness Coordinator.

Fire service museum announces Rescue Rovers program

The Oregon Fire Service Museum, Memorial, and Learning Center launched a new program this summer to provide Oregon fire agencies with small stuffed Dalmatian dogs to give to traumatized children.

Under the Rescue Rovers program people "purchase" a dog for $5.00, write their first name on a paper dog tag, and then drop it into a barrel inside the hose cart shed at the fire service museum information center at Antique Powerland in Salem.

Oregon Fire Service Museum Curator Shirley Tormey adds Rescue Rovers to the donation barrel.

You may also send a check to the Oregon Fire Service Museum, 1284 Court Street NE, Salem, OR 97301, and the appropriate number of dogs will be added to the barrel.

At intervals throughout the year, Rescue Rovers will be given to different fire agencies in Oregon.

This fall, three lucky fire agencies will each receive one dozen Rescue Rovers.

When told about the program, one firefighter expressed enthusiasm, saying he often encounters children so scared they are shaking and it would be nice to have something to hand to them.

Many people have been delighted to help by purchasing stuffed animals they knew would go to help a traumatized child, and parents use the opportunity to teach their children about giving to others. In addition to benefiting the community, each dog sold also generates $2.75 for Oregon Fire Service Museum operating budget.

For more information call 1-888-313-6873 or email oregonfiremuseum@gmail.com.