

GATED WYE



July 2008 · Oregon Office of State Fire Marshal · 4760 Portland Road NE · Salem Oregon 97305-1760 · No. 294

Local, state, and federal agencies partner to deliver statewide fireworks safety message

The Office of State Fire Marshal, Oregon fire service, natural resource agencies and safety experts collaborated on highlighting fireworks safety at the annual fireworks safety media event on June 23.

Hosted by Clackamas County Fire District #1, representatives from Oregon State Parks, the Oregon Department of Forestry, U.S. Bureau of Land Management, Portland Fire & Rescue, Salem Fire Department, Gladstone Police, and Salem Police delivered multiple messages on the theme *Keep it legal, keep it safe*.

Oregon's fireworks sales season opened June 23 and continues until midnight July 6, 2008. Legal fireworks may be

purchased only from Oregon permitted fireworks retailers and stands. Oregon law bans possession, use, or sale of fireworks that fly, explode, or



Dr. Shane Kim of Eye Health Northwest addresses the media about fireworks injuries

travel more than six feet on the ground or 12 inches into the air.

Fire departments and law enforcement agencies may request a pocket guide to

fireworks enforcement by contacting Sharon Kraw at 503-373-1540 ext. 285 or they may download a guide at http://www.oregon.gov/OSP/SFM/docs/Licensing_permits/fireworks/2006Toolkit/Retail/Pocket_Guide_2007_with_Revisions2.pdf

The event concluded with a demonstration of the types of fireworks allowed for sale in Oregon.

Fire departments or other organizations interested in participating in next year's media event may contact OSFM Licensing and Permit Manager Anita Phillips at 503-373-1540 ext. 264 or email anita.phillips@state.or.us.



Members of the Portland media document part of the live fireworks demonstration



Oregon Parks & Recreation Department Park Manager M.G. Devereux speaks with a reporter

From the desk of the State Fire Marshal



“These achievements and others can be credited to members of the Oregon fire service stakeholders, and other local and state organizations.”

Achievements through partnerships highlighted in OSFM Annual Report

By now, most Oregon fire departments and districts have received their copy of the 2007 OSFM Annual Report. I hope you will take special note of how partnerships continue to play a role in accomplishing our mission.

Some of the accomplishments include:

- Collaborating with fire service policy-makers and legislators to gain passage of Oregon’s fire-safer cigarette law and a resolution establishing January 27 of each year as Fire Service Appreciation Day.
- Working with the Bureau of Alcohol, Tobacco, Firearms, and Explosives to streamline and coordinate state and federal explosives requirements.
- Partnering with local emergency planning committees around the state to ensure a planned and coordinated disaster response.
- Successfully deploying one of our all-hazard incident management teams for flood recovery after the December ‘07 storm event.

These achievements and others can be credited to the Oregon fire service, stakeholders, other local and state organizations, and the terrifically dedicated and competent state fire marshal staff.

Even with increased partnerships and safety efforts, 43 Oregonians lost their lives in fires last year. This is up 22 percent from 2006 and 53 percent from 2005.

Please, let’s step up our prevention efforts, expand our circle of partners, and never let up in our mission to protect the lives and property of Oregonians.



State Fire Marshal
Nancy Orr

Office of
State Fire Marshal

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

www.sfm.state.or.us
503-373-1540

Administration
ext. 211

Codes & Technical
Services
ext. 269

Community Education
ext. 273

Community
Right-to-Know
ext. 214

Data Services
ext. 244

Emergency Planning &
Response
ext. 227

Emergency Response
ext. 238

Fire & Life Safety
ext. 204

Firesetter Intervention
ext. 230

License & Permits
ext. 264

The *Gated Wye* is published monthly by the Oregon Office of State Fire Marshal. For submissions or suggestions contact Rich Hoover at 503-373-1540 ext. 217 or email richard.hoover@state.or.us. In compliance with the Americans with Disabilities Act, alternative formats of this publication are available, contact 503-373-1540 ext. 228 or email colleen.olson@state.or.us.

2008 Emergency Response Guidebook available

The Office of State Fire Marshal has distributed copies of the 2008 Emergency Response Guidebook to county emergency managers. Please contact your local emergency planning agency to receive copies.

The U.S. Department of Transportation (DOT) developed the guidebook for firefighters, law enforcement and other emergency services personnel who may be the first to arrive at transportation incidents involving hazardous materials.

Preprinted copies of the guidebook are limited. OSFM encourages departments and districts to download and print their own copies at <http://hazmat.dot.gov/pubs/erg/guidebook.htm>. You may also download versions of the guidebook for PDAs and pocket PCs at the above web address.

For more information, contact Terry Wolfe at 503-373-1540 ext. 219 or email terry.wolfe@state.or.us.

Parents can be held liable for fireworks fire suppression costs

Did you know Oregon Revised Statute 480.158 holds parents of minors liable for suppression costs of fireworks fires caused by their children?

In addition to any other remedy provided by law, Oregon statute states the parent or parents of an unemancipated minor shall be liable for costs incurred by a public fire agency in suppressing fireworks fires caused by a minor child. Exceptions apply to parents without legal custody of the minor child at the time of the fire.

The law allows for damages of up to \$5,000, payable to the same department, whether it is for one or more acts.

Fire departments pursuing a claim for suppression costs must name parents as the defendants, along with the minor child. For more information, contact Anita Phillips at 503-373-1540 ext. 264 or email anita.phillips@state.or.us.

Training available for community door-to-door smoke alarm program

The Office of State Fire Marshal (OSFM) is hosting a workshop for Oregon fire service members on July 17, 2008, on conducting community door-to-door smoke alarm campaigns. The two-hour workshop will be at the OSFM office in Salem. Training covers implementation of all phases of the model community door-to-door smoke alarm campaign kit developed by OSFM in partnership with the Oregon Life Safety Team.

The workshop and campaign kit give departments the tools to conduct their own campaigns. Workshop attendees will learn to identify steps of a successful campaign and develop an action plan for conducting their own community door-to-door smoke alarm campaign.

The workshop is free. Each attending organization committing to conducting a community campaign can receive 50 free smoke alarms from OSFM.

To register or for more information, visit <http://www.oregon.gov/OSP/SFM/Training.shtml> or contact Colleen Olson at 503-373-1540 ext. 228 or email colleen.olson@state.or.us.

New study of traffic incident management systems available

The U.S. Fire Administration and the U.S. Department of Transportation's (DOT) Federal Highway Administration, in partnership with the International Fire Service Training Association, have developed a report providing technical guidance and training programs in traffic incident management for fire and emergency service providers. The report, *Traffic Incident Management Systems*, contains guidance for fire departments on compliance with the DOT's *Manual of Uniform Traffic Control Devices* and the National Fire Service Incident Management System Consortium's *Model Procedures Guide for Highway Incidents*.

The report may be accessed at https://www.usfa.dhs.gov/downloads/pdf/publications/tims_0408.pdf.

Fire cause - when to call it undetermined

The goal of a fire investigator is not only to determine the cause of a fire, but to ensure they determine the correct cause. A fire investigator has a significant responsibility in developing opinions and conclusions and they must exercise care to 'make the right call' every time. Failure to make correct determinations could set an arsonist free or convict an innocent person.



The best way for investigators to make correct determinations involves using the scientific method to form their hypothesis.

NFPA® 921 18.6.1 states: "Use of the scientific method dictates that any hypothesis formed from an analysis of the data collected in an investigation must stand the challenge of reasonable examination, by the investigator testing his hypothesis or by the examination of others." NFPA® 921 18.6.2 goes on to say: "The final opinion is only as good as the quality of the data used in reaching that opinion. If the level of certainty of the opinion is only 'possible' or 'suspected' the cause should be listed as UNDETERMINED." [Emphasis added] (Author's note: These sections are much more detailed and I encourage you to read them in full.)

In the past, a fire investigator might base their opinion on unfounded theories or unscientific opinions. For example, the spalling of concrete was previously thought as indicative of the use of ignitable liquids. This has been proven to be incorrect. The heating of moisture in concrete causes it to expand resulting in a steam explosion or expansion, breaking apart the concrete surface. An investigator must consider if they are basing their opinions on facts or assumptions.

In the legal case, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, a federal court found that an expert must be able to prove or replicate a fire cause and not base their opinion on unproven

theories or 'junk science.' Opinions must be based upon facts that can be duplicated, not just conjecture. Many state courts also adhere to this reliability criteria.

According to NFPA® 921 4.3.4 *Analyze the Data*, all of the collected and observed information is analyzed by inductive reasoning: the process in which the total body of empirical data collected is carefully examined in the light of the investigator's knowledge, training, experience and expertise. Subjective or speculative information cannot be included in the analysis, only facts that can be proven clearly by observation or experiment.

An investigator's theory (hypothesis) must determine how and why a fire occurred. How the fire occurred must be provable and not based on conjecture or unproven opinion or suspicion.

Many times, an investigator or investigation team dismisses a hypothesis because of flaws or oversights. On many fire investigations I have been involved with, the investigation team works through different theories on fire cause or fire progression. Often this process uncovers flaws in the theory or helps confirm the theory is correct.

A give and take of ideas among investigators is very helpful, as long as egos don't get in the way. The goal should be to determine the actual cause of the fire, not who is right or wrong in developing the hypothesis.

Ultimately, if a viable hypothesis isn't developed or there is not enough information to make a cause determination, an investigator must classify the fire as UNDETERMINED.

Remember, 'suspicious' is not an accurate description of a fire cause. Suspicion refers to a level of proof or certainty per NFPA® 921 19.2.1. Fires where the level of certainty is probable or suspected, or where there is only suspicion of cause, should be classified as undetermined.

In summary, gather your data and rule out all the fire causes or ignition sources you can. Develop a hypothesis based on the facts of what happened and review your theory with other investigators. If an investigator bases their theory (hypothesis) on provable fact and real evidence, then make a determination, but if it doesn't, it's better to list the cause as undetermined.

Best practice guideline available for standardized fire loss reporting

The Standardized Loss Reporting Committee, formed by the Oregon All Incident Reporting System Standing Committee, has developed a *Standardized Fire Loss Reporting Best Practice Guideline* to help fire investigators assess and report property values and associated dollar losses due to fire. The guideline is voluntary. It is not intended as a substitute for contacting county assessors for market value or insurance adjusters for loss information.

The guideline is designed to:

- improve consistency in reporting values and losses,
- increase the reliability of fire loss statistics reported to the Office of State Fire Marshal and,
- provide a more accurate view of fire losses and the impact of those losses on the citizens of Oregon.

The best practice guideline may be found at http://www.oregon.gov/OSP/SFM/docs/Data_Services/BestPracticeFinalFinal5-1-08.pdf.

NVFC and USFA release report on health and safety issues in the volunteer fire service

The National Volunteer Fire Council in partnership with the U.S. Fire Administration has completed a study of emerging occupational health and safety issues in the volunteer fire and emergency services. The report, *Emerging Health and Safety Issues in the Volunteer Fire Service*, provides information on initiatives, programs, and strategies for reducing fatalities among volunteer firefighters.

More than 70 percent of the fire departments in the U.S. are all-volunteer and 17 percent are volunteer combination departments.

The report may be downloaded at http://nvfc.org/files/documents/Emerging_Issues.pdf.

OSFM seeks examples of fireworks prevention and enforcement efforts

The Office of State Fire Marshal License and Permit Services unit is requesting Oregon fire departments and districts to submit examples of fireworks safety campaigns and enforcement actions. Examples will be highlighted in future editions of the Gated Wye.

“We want to recognize the efforts of fire departments and law enforcement agencies working to improve fireworks safety education and compliance,” said License and Permit Services Manager Anita Phillips. “These examples may help other departments and agencies in planning their own prevention and compliance efforts.”

Submit information to Sharon Kraw at 503-373-1540 ext. 285 or email sharon.kraw@state.or.us.

New OSFM employee

Stephanie Stafford

Community Education Program Coordinator



Stafford graduated from Western Oregon University with a degree in Law Enforcement. She began working at Hewlett Packard in Information Technology. Since then she has worked for Oregon Judicial Department as a drug treatment court coordinator and Department of Human Services as a grants coordinator. She also works part-time as an emergency responder and CPR/first aid instructor with Oregon State University-Department of Recreational Sports. Stafford has a grown son and likes to camp, hike, raft, bike, snowboard, travel, garden and volunteer in her spare time.

“I am thrilled to be a part of the State Fire Marshal’s Office and look forward to learning about the fire service,” said Stafford.

Firefighters and EMTs reminded they are mandatory reporters

The Oregon Department of Human Services (DHS) reminds Oregon firefighters and emergency medical technicians that they are mandatory reporters of child abuse and neglect. As a mandatory reporter, if you suspect a child with whom you have had contact has been abused or neglected or that any person you come in contact with has abused or neglected a child, you must notify law enforcement or the local office of the Department of Human Services.

When unsure if the information you have requires a report of abuse, DHS requests you err on the side of child safety and make a report.

Additional information is available in video form at http://www.oregon.gov/DHS/abuse/mandatory_reporters.wmv or as a booklet at <http://dhsforms.hr.state.or.us/Forms/Served/DE9061.pdf>.

For more information, contact Juanita Raymond at 503-945-6624.

Two arrested in Portland for illegal fireworks

Acting on a tip from the Oregon Office of State Fire Marshal (OSFM), the Metropolitan Fire Investigation Team (MFIT) arrested two men in SE Portland for illegal fireworks sales, possession and manufacture.

Several weeks prior, the OSFM forwarded an investigative lead to Portland Fire & Rescue investigators involving an internet posting on Craigslist advertising fireworks for sale.

After weeks of investigation, the MFIT, including members from Portland Fire & Rescue, Portland Police, Metropolitan Explosive Disposal Unit, Vancouver Fire Department and the Bureau of Alcohol, Tobacco, Firearms, and Explosives, seized \$10,000 worth of illegal fireworks and arrested James P. Johnson and Harvey Joe Edward Stevens.

Portland Fire & Rescue Chief Investigator Rich Stenhouse said, "A lot of work by the MFIT went into this operation. Our focus is always on the protection of the citizens and property in Portland."

Governor's Recovery Cabinet closes book on December storms

Governor Ted Kulongoski's Recovery Cabinet — a panel of agency heads, advisers and local government leaders charged with coordinating northwest Oregon's recovery from last December's devastating storms — ended its activities June 24, 2008 with reports on results, costs and lessons learned.

"Oregonians can be proud of the way their government agencies worked together with private businesses, relief organizations and the federal government to speed recovery from the storms of December '07," said Governor Kulongoski.

State agencies responded quickly and massively to requests for help from communities while the storms still raged, taking advan-

tage of pre-planning and coordination that had occurred before the emergency.

Oregon Department of Administrative Services (DAS) reported DAS and the Oregon Military Department have jointly sought approval from the legislature's Emergency Board for \$21.2 million, which represents a 25-percent match needed to receive federal reimbursement for repairs and cleanup in the aftermath of the storms. About \$1.9 million of the request is from the state general fund.

A more detailed description of state agencies' efforts, achievements, lessons learned and costs may be viewed at:

http://governor.oregon.gov/gov/docs/gov_recoverycab_exitconf_slides.pdf.



Copper Cyanide CuCN

Description:

- Synonyms: copper (I) cyanide, cuprous cyanide or cupricin
- White to cream-colored powder, sometimes greenish
- Slight bitter almond odor of hydrogen cyanide, odorless when dry
- Poisonous; Chronic health hazard; Reactive; Corrosive
- CAS No.: 544-92-3
- Flash point: Nonflammable
- DOT: Poisonous Material Class 6.1
- UN/NA: 1587

NFPA Information:

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

Uses and Occurrences:

- Insecticide and fungicide
- Biocide in marine plants
- Electroplating

Reactivity and Fire Risk:

- Copper cyanide is not flammable
- Stable under normal use and storage
- Reacts violently with magnesium
- Reacts with acids to liberate hydrogen cyanide gas
- Moisture will cause slow decomposition releasing hydrogen cyanide gas
- Reacts with carbon dioxide in air to form hydrogen cyanide gas
- Incompatibles include: magnesium, acids, strong oxidizing agents, acetylene gas
- Use extinguishing media appropriate for surrounding fire

Health Hazards:

- OSHA PEL: 5 mg/m^3 skin TWA (as CN)
- May be fatal if swallowed, inhaled or absorbed through skin
- Eye contact may result in severe irritation or burns
- Skin may be bright pink to red color
- Inhibits cellular respiration with possible changes in blood, nervous system and thyroid

- Breath may have a bitter almond odor
- May result in burns, corneal edema and damage to the optic nerve

Personal Protective Equipment:

- Emergency responders should use self-contained breathing apparatus and appropriate chemical protective suit
- Use local exhaust ventilation or other engineering controls to stay within PELs
- Wear impervious protective clothing, splash goggles and face shield
- Use an approved respirator if appropriate
- There should be training on handling cyanide emergencies

Inspection and Storage Tips:

- Keep container tightly closed
- Keep container in a cool, dry, ventilated area
- Protect against physical damage
- Store away from incompatibles

2007 Oregon Fire Code:

- Toxic
- Maximum Allowable Quantities (MAQ) per S occupancy control area:
- Unprotected by sprinklers or approved storage cabinets: 500 pounds
- In sprinklered building, not within approved storage cabinets: 1000 pounds
- In unsprinklered building, within approved storage cabinets: 1000 pounds
- In sprinklered building, within approved storage cabinets: 2000 pounds

Incident Reporting and Information:

- There are six facilities in Oregon currently reporting copper cyanide on the Hazardous Substance Information Survey
- There have been no hazardous materials incidents reported in Oregon since 1986 involving copper cyanide

Have questions or a chemical of the month request?
Contact HazMat Information Specialist Alec Carte at
503-373-1540 ext. 262, or email
aleta.carte@state.or.us

Oregon chapter of IAAI seeking award nominations

The Oregon chapter of the International Association of Arson Investigators (IAAI) is accepting nominations for the following awards:

- Life Membership Award
- Distinguished Service Award
- Investigator of the Year Award
- Award of Recognition
- Outstanding District Award
- Photography Award
- Amusing Award

With the exception of the Life Membership Award, nominees do not have to be members of the IAAI.

The awards will be presented at the chapter's annual banquet, September 16-19 at the Valley River Inn in Eugene, Oregon.

For more information, contact James Christiansen at 971-219-8878 or Debi Bisbee at 541-596-2548.



Office of State Fire Marshal
4760 Portland Road N.E.
Salem, Oregon 97305-1760

Fire-resistant plant display available for loan

The Office of State Fire Marshal has an educational display on fire resistant plants available for loan to any Oregon fire department or district. The tabletop display illustrates how home owners can help protect their home and property from the hazards of wildland fires by landscaping with fire-resistant plants and trees.



To request or reserve the display, contact Nicole Ohmart at 503-373-1540 ext. 366 or email Nicole.ohmart@state.or.us.