

GATED WYE

December 2007 . Oregon Office of State Fire Marshal . 4760 Portland Road NE . Salem Oregon 97305-1760 . No. 287

Astoria first to exercise community capability assessment

Astoria is the first community in Oregon to complete an Office of State Fire Marshal community capability assessment through the exercise phase.

In November, Astoria Fire Department personnel facilitated an exercise simulating a release of anhydrous ammonia from a seafood processing plant. The exercise required a real-time response and included participation from local fire departments, law enforcement agencies, emergency medical services, HazMat Team 11, public works, Astoria hospital, city and county agencies, local businesses and other community organizations.

The exercise addressed issues such as:

- How is the community affected by a hazardous chemical release?
- What resources are needed to respond to this type of incident?
- How do local, county and state agency emergency plans meld or conflict?

"This was a terrific experience for everyone involved," says Astoria Fire & Rescue Chief Lenard Hansen. "We made significant strides in the communication and coordination between the public and private agencies responding to such a large scale incident. The skills everyone learned in this exercise will apply not just to a hazardous materials event, but any large scale emergency."



Astoria Fire & Rescue Fire Marshal Mike Jackson (at right) talks with Astoria Fire & Rescue HazMat Coordinator Mark Truax as Medix Ambulance Operations Manager Duane Mullins (foreground) looks on.

Exercise participants also used the opportunity to:

- Coordinate the response activities of city and county government

agencies, volunteer organizations, and private industry.

- Provide training in a real world setting for all participants.
- Test, evaluate and identify gaps in local emergency plans.
- Enhance emergency coordination and cooperation with multiple jurisdictions and organizations.

Based on evaluation results, participants in the Astoria community capability assessment will modify emergency plans and determine necessary training.

If you are interested in training, planning or conducting a community capability assessment in your community or jurisdiction, contact Office of State Fire Marshal Planning and Training Assistance Program Coordinator Terry Wolfe at 503-373-1540 ext. 219 or email terry.wolfe@state.or.us.

From the desk of the State Fire Marshal



“Our partnership with ODE ensures our children will be given comprehensive instruction in fire and life safety.”

Middle school fire awareness curriculum another step closer

I recently met with Oregon State Superintendent of Public Instruction Susan Castillo to discuss our new middle school fire awareness curriculum - *Its Up to You!* I'm happy to report the superintendent is recommending the curriculum be included in the Oregon Department of Education's (ODE) Health Education teacher training.

The scope and sequence of *Its Up to You!* closely aligns with the Oregon Health Education Content Standards adopted by the State Board of Education in February 2005. It also supports a component of the federally-funded Healthy Kids Learn Better statewide partnership. Middle school health teachers will be trained on the curriculum through Oregon Department of Education's cadre of health trainers.

Its Up to You! takes a proactive approach to teaching youth in middle school about the reality of fire, how the media influences their attitudes and behaviors toward fire, and the physical and legal consequences of misusing fire. Students practice how to make responsible and safe decisions in fire prevention and survival of fire, earthquakes, and tsunamis.

The middle school curriculum was developed through a unique partnership with the fire service, ODE's health educators, and staffs from the Center for Media Literacy and the OSFM Community Education unit. Development and printing of the curriculum were funded by FEMA's FY 02 Assistance to Firefighters-Fire Prevention and Safety grant. The grant makes it possible to provide the curriculum at no charge.

Endorsement by the superintendent is a huge step for fire education in Oregon. It paves the way for every Oregon middle school child to learn the significance of personal responsibility in fire safety. Our partnership with ODE ensures our children will be given comprehensive instruction in fire and life safety.



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.

Supplemental legislative session set for 2008

The Oregon Legislature will hold a supplemental session in February 2008, though it will differ significantly from other sessions. The 2008 session is limited in number of bills, duration and scope. The agenda is expected to be limited to technical and budget fixes carried over from the 2007 Session.

There is no process for executive branch agencies to pre-session file. Bills will be extended only to legislators. Both the House and Senate are limiting bills to 50 each. Every Senator was allowed to file a bill by November 15. The House of Representatives will run bills through each committee with a deadline for the end of November.

It's unclear if fire-related bills will surface, however recent wildfires in California have raised concerns about stable funding for Oregon's Conflagrations. For more information, contact OSFM Senior Policy Analyst Donna Disch at 503-373-1540 ext. 275 or email donna.disch@state.or.us.

Deadline for Children's Fire Safety House award applications is December 31

The Office of State Fire Marshal (OSFM) is requesting applications from Oregon fire departments interested in taking possession of OSFM's mobile Children's Fire Safety House.

Applications are available online at <http://www.oregon.gov/OSP/SFM/CFSH.shtml> and may be faxed to 503-373-1825 or mailed to OSFM at 4760 Portland Road NE, Salem, OR 97305. Application deadline is 5 p.m., December 31, 2007.

To request a mailed application or for more information, contact Dee Anna Morgan at 503-373-1540 ext. 416, or email dee.anna.morgan@state.or.us.

Incident reports for 2007 due January 7, 2008

Fire department incident reports need to be submitted to the Office of State Fire Marshal's (OSFM) Information and Data Services unit by January 7, 2008, to be included in the OSFM 2007 Annual Report. Fire department data is necessary to determine fire-trend analysis and guide the direction of fire-related programs and activities throughout Oregon.

Department reports are also submitted to the National Fire Incident Reporting System, ensuring Oregon fire departments qualify for USFA Assistance to Firefighter grants.

Please submit 2007 reports to Data Services electronically or use paper forms. Required reports include:

- All fire runs (F10)
- Non-fire responses – using the Quarterly Non-Fire Incident Report (If electronically reporting all types of situations, the Non-Fire Incident Report is not needed.)
- Juveniles involved with fires or juveniles who were seen as walk-ins (10J)
- Reportable hazardous materials incidents

Report forms may be downloaded at <http://www.oregon.gov/OSP/SFM/ISandData.shtml>.

Reports are also needed if your department had no fires, no juvenile with fire incidents (walk-ins), or no reportable hazardous materials incidents for 2007. Please send these reports by email to OSFM.data@state.or.us or standard mail using the blue mailer. For more information, contact Data Services at 503-378-3473.



Determining ignition sources through elimination



Firefighters learn combustion requires four ingredients, fuel, oxygen, heat and a self-sustaining chemical reaction, commonly known as the fire tetrahedron. However, knowing this does not necessarily lead an investigator to the cause of a fire.

In many cases, it's best not to approach the fire cause through inclusion of factors, but by elimination of factors.

Per NFPA 921 Chapter 19, "The cause of a fire may be classified as accidental, natural, incendiary, or undetermined."

- Accidental fires are those in which the proven cause does NOT involve an intentional act to ignite or spread the fire
- Natural fires are those with no direct human intervention or action, and
- Incendiary fires are those intentionally ignited under circumstances which the person knows the fire should not be ignited.

A novice investigator may feel overwhelmed with the possible ignition sources at a typical fire scene. In every fire, an ignition source and a fuel came together in the presence of oxygen. But, are there really that many possible ignition sources?

Per NFPA 921 18.3.2, "A competent ignition source will have sufficient temperature and energy and will be in contact with the fuel long enough to raise it to its ignition temperature." How many of these ignition sources can potentially start a given fire?

Let's look at some potential heat or ignition sources. Per IFSTA® *Essentials of Firefighting*, there are many types of energy found in nature, including:

- **Chemical**- Energy released as a result of a chemical reaction such as combustion.

- **Mechanical**- Energy possessed by an object in motion such as a rock rolling down a hill.
- **Electrical**- Energy developed when electrons flow through a conductor.
- **Heat**- Energy transferred between two bodies of differing temperature such as the sun and earth.
- **Light**- Visible radiation produced at the atomic level such as a flame produced during the combustion reaction.
- **Nuclear**- Energy released by splitting (fission) or joining (fusion) atoms. Nuclear power plants generate power as a result of the fission of uranium-235.

A fire may start from any of these ignition sources. I will explain how these are the only means by which an ignition can occur and fall into one of these categories, with the exception of human-caused or incendiary fires. As investigators, we want to find ways to eliminate natural ignition sources known to be present or not present at the time of the fire. Eliminating potential ignition sources makes an investigator's job easier and increases our chances of determining the correct fire cause.

In the following examples, let's see which ignition sources may apply.

While investigating a fire in a single-family dwelling, you find an electric space heater in the area of origin. You also find the heater unplugged or there is no electrical service to the structure. While the heater may initially appear as a viable ignition source, without electricity the heater cannot be the ignition source. Therefore you can rule out electrical failure and misuse as an ignition source.

What other items from the ignition source list can we eliminate? Nuclear? Probably, this would be a very rare and unique circumstance.

In the following example, possible ignition sources are enclosed in parentheses.

I investigated a fire involving a large horse stable. The heavy timber structure had no electrical service (rule out electrical), no heating appliances (rule out mechanical, heat, electrical), no gas utilities (rule out heat, light, mechanical).

See Origin page 5

Origin

Continued from page 4

There were no lightning strikes in the area (rule out electrical) and the fire occurred at night (rule out electrical, light or heat). There was no hay or other organic material to cause spontaneous heating (rule out chemical). There were no mechanical devices at all, nor were there any item's processes or procedures to cause heat from friction (rule out mechanical).

Able to rule out other ignition sources in the area of origin such as appliances, electrical outlets and heating devices, I was able to determine the fire was human-caused.

I didn't know if there was a motive or if the act was intentional (incendiary or accidental), only that the fire was human-caused.

It's important to understand this is still NOT the cause of the fire, but through elimination I narrowed the possibilities. The actual fire cause is undetermined, because other ignition sources have been eliminated.

Eliminating potential ignition sources before focusing on any remaining possible sources saves time and will eventually become second nature in helping you develop your hypothesis of the ignition source of the fire.

Fire Service Appreciation Day January 27, 2008

Oregon's first Fire Service Appreciation Day is Sunday, January 27, 2008. The Oregon Legislature passed House Joint Resolution 25, establishing the day to honor those who keep 'Oregon citizens safe from the ravages of fire.'

January 27th is significant as the date the first fire company in the United States organized in Boston in 1678.

Hermiston Fire and Emergency Services Board President Ric Sherman initiated the effort and guided the board's work with State Representative Bob Jensen in developing the legislative concept. The bill passed the House and Senate after only minor modifications.

The resolution honors all those in the Oregon fire service who work to save lives and property. This includes firefighters who risk their safety in the course of their duties as well as unsung heroes in fire prevention, education and public information working behind the scenes.

The bill was supported by the Joint Fire Service Legislative Committee, comprised of diverse fire service organizations including:

- Oregon Fire District Director's Association
- Oregon State Firefighter's Council
- Oregon Fire Chiefs Association
- Oregon Fire Marshals Association
- Oregon Volunteer Firefighter's Association
- Oregon Fire Dispatcher's Association
- Oregon Office of State Fire Marshal
- Oregon Department of Public Safety Standards and Training

For more information, contact Donna Disch at 503-373-1540 ext. 275 or email donna.disch@state.or.us.

New multi-hazard house available for loan

The Office of State Fire Marshal has a new Multi-Hazard House trailer available for loan to Oregon fire departments and districts. The mobile prop is an educational aid allowing participants to learn and practice:

- fire prevention,
- fire safety,
- correct smoke alarm response,
- safe exiting procedures, and more.

The prop may also be used to demonstrate the effectiveness of a home fire sprinkler system.

For more information, visit http://www.oregon.gov/OSP/SFM/Multi_Hazard_House.shtml or to reserve the Multi-Hazard House, contact Dee Anna Morgan at 503-373-1540 ext. 416 or email dee.anna.morgan@state.or.us.

Governor's Fire Service Policy Council elects George Warren Chair

Members of the Governor's Fire Service Policy Council elected Oregon Fire District Directors Association representative George Warren as its new chair during the Council's November 27 meeting. Warren replaces Oregon Fire Marshals Association representative Gary Marshall.

The Council also elected Oregon Volunteer Firefighters Association representative Scott Mullen as vice chair replacing General Public representative Ron Murray.

Outgoing Chair Marshall recognized outgoing members Pat West and Ron Murray (absent) for their service and contributions to the council and the Oregon fire service.



Outgoing GFSPC Chair Gary Marshall (left) with Oregon State Fire Marshal Nancy Orr.

Board members joined Oregon State Fire Marshal Nancy Orr in paying tribute to Chair Marshall for his dedication and accomplishments while serving as the board's leader.



Gary Marshall recognizing Pat West (above, at right) for his service on the council, and staff member Laura Drager (left) for her work during Marshall's tenure.



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

The Office of State Fire Marshal (OSFM) is hosting a workshop January 17, 2008, for Oregon fire service members on conducting community door-to-door smoke alarm campaigns. The two-hour (10:00 a.m. – noon) workshop will be held at the OSFM office in Salem and will cover 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.

Community-based door-to-door smoke alarm campaigns have proven to be an effective method for reaching residents who haven't responded to previous education efforts to change attitudes and behaviors regarding proper smoke alarm maintenance and home fire safety.

In 2006, of the 18 fire fatalities in Oregon homes where smoke alarm presence and performance were known, eight people (44%), died in homes without a smoke alarm or without a working smoke alarm. These households continue to suffer a disproportionate number of fire deaths in our state. The community door-to-door smoke alarm workshop and accompanying campaign kit will give departments the tools necessary to conduct their own campaigns, contributing to a reduction in fire deaths, injury and property loss statewide.

The community door-to-door smoke alarm campaign kit includes step-by-step instructions for campaign planning, recruiting community partners, campaign implementation and evaluation as well as material templates. Workshop attendees will be familiarized with the elements of the kit, 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. Also, each organization conducting a community campaign can receive 50 free smoke alarms from OSFM.

To register or for more information, contact Colleen Olson at 503-373-1540 ext. 228 or email colleen.olson@state.or.us.



Chemical of the month by Alec Carte

Calcium Hydroxide Ca(OH)_2

Description:

- Synonyms: Hydrated lime; slaked lime; calcium hydrate; calcium oxide, hydrated
- Odorless white crystals or powder
- (6.3) Acute Health Hazard; (8.0) Corrosive;
- (6.4) Chronic Health Hazard
- CAS No.: 1305-62-0
- UN/NA: non-regulated

NFPA Information:

- Health: 2
- Flammability: 0
- Reactivity: 0
- Special: None

Uses and Occurrences:

- Obtained when calcium oxide is slaked with water
- Chemical reagent
- Flocculant
- Ingredient in plaster
- Chemical depilatory agent

Reactivity and Fire Risk:

- Not flammable
- Stable under normal conditions of use and storage
- Readily absorbs carbon dioxide from the air to form calcium carbonate
- Incompatibles include: acids, phosphorus, maleic anhydride, nitromethane, nitroethane, nitroparaffins, nitropropane and some metals
- Use extinguishing media appropriate for surrounding fire
- Never add water directly to calcium hydroxide

Health Hazards:

- OSHA PEL: 15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)
- Corrosive
- Eye contact may result in corneal damage or blindness
- Severe overexposure can result in lung damage and death
- Inhalation can result in irritation and burns to the respiratory tract
- Ingestion can result in irritation and burns

Personal Protective Equipment:

- Emergency responders should use self-contained breathing apparatus and full protective equipment
- Use local exhaust ventilation or other engineering controls to stay within PELs
- Wear gloves, apron, splash goggles
- Use a respirator if appropriate

Inspection and Storage Tips:

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

IFC Information:

- Corrosive
- Maximum Allowable Quantities (MAQ) per S occupancy control area:
 - Unprotected by sprinklers or approved storage cabinets: 5000 lbs.
 - In sprinklered building, not within approved storage cabinets: 10,000 lbs.
 - In unsprinklered building, within approved storage cabinets: 10,000 lbs.
 - In sprinklered building, within approved storage cabinets: 20,000 lbs.
 - For storage of quantities exceeding the MAQ for S occupancy, the storage facility must conform to H-3 occupancy requirements

Incident Reporting and Information:

- There are 12 facilities in Oregon currently reporting calcium hydroxide on the Hazardous Substance Information Survey
- There have been no hazardous materials incidents reported in Oregon since 1986 involving calcium hydroxide

Have a chemical of the month request?
Contact Alec Carte



Alec Carte is a HazMat Information Specialist in the OSFM Community Right to Know unit. She can be reached at 503-373-1540 ext. 262, or email aleta.carte@state.or.us

Retirement

Jefferson County Fire District #1 Fire Chief Earl Cordes Jr. is retiring December 21, 2007. Cordes, 54, has been with the Fire District for 28 years, serving as chief the past 23.



Cordes joined the Fire District in November 1980 as a Volunteer Firefighter. He took over as the District's first full-time fire chief in May 1985. During his tenure the Fire District constructed a new fire station, improved its ISO rating, implemented a resident student program, and improved the fleet with modern fire apparatus. Cordes has also been active in local and statewide fire committees.

Retirement plans include traveling, working with his wife in the real estate field and working summers as a member of the Central Oregon Fire Management Team.

Unclassifieds

For sale

Upper McKenzie Rural Fire Protection District has available an older Cascade system to fill SCBA bottles. This is a low pressure (2200 psi) system, with eight cascade bottles, storage rack and compressor. Although the compressor worked adequately when last used, any buyer should assume a major overhaul will be needed. The compressor is the size of a small generator and is separate. Make an offer by contacting Norm Michaels, 541-822-3479, or email uppermckenzie@yahoo.com.



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