Kerr-McGee raises first Oregon VPP flag

Employees from Kerr-McGee Chemical Corporation raised the first Oregon Voluntary Protection Program (VPP) “Star Site” flag over their worksite in The Dalles, Oregon on December 10. The Dalles facility is one of six wood preserving facilities of the Kerr-McGee Chemical Corporation, Forest Products Division. The facility employs 56 full-time employees, who process and treat approximately one million wood crossties annually for the Union Pacific and other railroads and companies.

Oregon’s pilot Voluntary Protection Program is designed to recognize and promote effective safety and health management. VPP participants are a select group of facilities that have designed and implemented outstanding health and safety programs. The VPP concept recognizes that enforcement alone can never fully achieve the objectives of the Occupational Safety and Health Act. Good safety management programs that go beyond Oregon OSHA standards can protect workers more effectively than simple compliance.

If a company is approved for the VPP pilot program, it’s removed from routine scheduled inspection lists for the duration of its participation. Employees lose none of their rights under the pilot program and Oregon OSHA will still investigate accidents, valid formal employee complaints, and chemical spills.

“Star” status is the highest level attainable under the VPP pilot program. To achieve “star” status a worksite must have a three-year average injury rate at or below 1.0.

See “VPP,” page 2

What you should know about scaffolds

by Ellis Brasch
Management Analyst, Oregon-OSHA

Ask anyone what a scaffold is, and he or she will probably say that it’s a platform that elevates workers and materials. But very few among those who can define scaffolds — however roughly — could correctly construct one.

Anyone who would construct a scaffold by laying boards across whatever support is handy could be dead wrong in their approach. A scaffold is a carefully engineered structure that allows workers not only to reach their work, but to do their jobs safely. Too often, workers have no scaffold training or they are improperly trained.

Unsafe scaffolds endanger workers in many ways:

See “Scaffolds,” page 4
Perhaps this says something about the way we, as a society, deal with tragedy and loss. We read the stories, but we do not personalize the pain. Yet, we have safety and health rules and laws to protect workers. We have them because for someone the pain is personal, the grief is real. We have them because we have made a decision to protect workers.

From the perspective of Oregon OSHA, an investigation such as the one at Portland International Airport is undertaken for three primary reasons. First, we want to find out what happened. Second, we want to do what we can to prevent a recurrence. And finally, we want to determine if violations of the Oregon Safe Employment Act have occurred and, if so, issue the appropriate citations. Of these three things, prevention of recurrence is of paramount importance.

The citations in this case tell both what happened and who was found, by Oregon OSHA, to be responsible. Hopefully, enough attention will have been focused on the problems found by Oregon OSHA to prevent their recurrence. If this happens, the ironworkers who died will not have died entirely in vain. But let us not forget them. And let us not forget that they are the reason we strive to make workplaces safer.

These fatalities affect us all. In the words of the English theologian, John Donne: “No man is an island, entire of itself; every man is a piece of the continent... Any man’s death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee.”

“VPP,” continued from page 1

those of its respective industries and must undergo extensive Oregon OSHA review of workplace conditions, safety records, employee safety and health systems, hazard identification and prevention, and interviews of personnel.

Peter De Luca, administrator of Oregon OSHA, said the purpose of the program is to encourage the improvement of site-specific occupational safety and health programs and to recognize excellence in such programs so that those programs may serve as models in their industries.

“Meaningful involvement by both management and its workers has enabled this company to earn this recognition,” said De Luca. “Oregon OSHA is looking forward to a long and successful relationship with Kerr-McGee.”

If you have questions about this program, please direct them to Phyllis Straight-Millan by e-mail at phyllis.s.straight-millan@state.or.us, or by phone at (503) 378-3272 or Mark Hurliman, (541) 476-4128. Written applications must be submitted for participation in the pilot program. For guidelines and

Donald Hoffman, plant manager for Kerr-McGee, receives VPP award from Peter De Luca

an application packet, or for more information, call Oregon OSHA at (503) 378-3272 or, toll free in Oregon, 1-800-922-2689.
**Article Submissions…**

*Resource* welcomes submissions of articles for publication. If you’d like to share information about OSHA-related topics, announcements, or events, please send them to Jani Johnston, OR-OSHA, 350 Winter St. NE, Salem, OR 97310-0220 or e-mail them to her, jani.k.johnston@state.or.us.

Articles will be used according to their relevance, timeliness, compatibility with OR-OSHA policy and practice and the availability of space. Because *Resource* is a quarterly publication (winter, spring, summer, fall), please time your submission so that we receive it about six months before publication. Please submit articles on diskette in a PC-compatible format such as WordPerfect. Or, you may e-mail your article to the address above.

Please include your name (as you would like it to appear in a byline) if the article is one you wrote, a phone number (in case we have questions), and a few lines describing you, your job, credentials, or interest in the subject (again, if the article is written by you or is an opinion piece). The *Resource* staff retains the right to edit all submissions for style and length.

**Ask OR-OSHA**

Applying OR-OSHA standards to “real-life” situations may not always be “standard” procedure. Sometimes, answers and solutions to problems can be tricky. *Ask OR-OSHA* will be a regular feature of the *Resource* so that your questions concerning OR-OSHA standards and your business may be answered by experts. Although we’ll answer your question as quickly as possible, we’ll also print selected questions and answers in this newsletter so that the answer to your question may help someone else. So please, *ask OR-OSHA* by calling the Standards and Technical Section, 503-378-3272 or e-mailing your question to tech.web@state.or.us. Please identify your question as an *Ask OR-OSHA* item.

And thank you. We hope you’ll find *Ask OR-OSHA* helpful and interesting.

Q How many test results (air samplings) are required before a confined space may be identified as a non-permit-required space?
A The definition of a permit-required confined space includes a confined space where the potential for an atmospheric hazard exists. Therefore, if a confined space has the potential for a hazardous atmosphere, such as oxygen deficiency, explosive hazard, or toxic substances, it can only be designated a non-permit-required confined space when there are no physical hazards and when testing shows that there are no atmospheric hazards. This must be done for each entry. See “Ask OSHA,” page 9
components collapse, boards and handrails fail, and stationary support turns out to be more mobile than expected. In some cases, entire structures have collapsed, causing injuries and deaths. Even on structurally sound scaffolds, workers can slip or lose their balance — and without proper protection, they don’t have to fall far to get hurt.

**OR-OSHA adopted new scaffold rules**

An advisory committee from around the state consisting of OSHA staff, scaffold equipment suppliers, and users reviewed Federal OSHA’s latest scaffold requirements (effective in November 1996), added three Oregon-initiated requirements covering aerial lifts, and adopted the new requirements effective March 12, 1997.

You’ll find these scaffolding rules in Subdivision 3/L of the Oregon safety and health code. Subdivision 3/L rules cover scaffolds used in construction, alteration, repair, and demolition work. Subdivision 3/L doesn’t apply to crane- or derrick-suspended personnel platforms; they’re covered in Subdivision 3/N.

The scaffolding rules in Subdivision 3/L update previous OSHA scaffolding requirements; regulate design, construction, and use of scaffolds; set performance-oriented criteria to protect workers from injury; cover specific types of scaffolds; allow employers flexibility in using fall protection systems; extend fall protection to erectors and dismantlers; strengthen training for workers; and identify conditions under which workers must be retrained.

The additional Oregon-initiated rules cover three types of aerial lifts: manually propelled elevating aerial platforms (ANSI A92.3), boom-supported elevating work platforms (ANSI A92.5), and self-propelled elevating work platforms (ANSI A92.6). These rules require workers to have the aerial lift manufacturer’s operating manual with the equipment when they use it and to follow all operating instructions.

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**Hot off the press: new scaffold guidebook**

*Scaffolds: Temporary Elevated Work Platforms* summarizes Subdivision 3/L requirements, identifies hazardous practices, and illustrates most of the scaffolds used in construction work. The publication is intended to supplement Subdivision 3/L.

For a free copy of this publication, call the Oregon OSHA Resource Center, 503-947-7447 or 1-800-922-2689 (V/TTY) or fax your request to 503-947-7463.
By Don Harris
AV Librarian, Oregon OSHA

Do you look both ways before crossing the street? Avoid touching a hot stove? Make sure you're warmly dressed in cold weather? Chances are, you learned these first safety and health principles by example even before you learned to read.

Lessons learned from example stay with us throughout our lives. The written word is essential, but nothing beats the impact of actually seeing and hearing other human beings.

The tremendous popular appeal of television and movies demonstrates what an extremely powerful source of education and motivation such media can be — whether for good, bad or simple “couch-potatoing.”

When Oregon OSHA first declared its mission to improve and advance occupational safety and health among the people of Oregon, the power of example was clearly recognized. From the beginning, OSHA employees understood that effective service to the people of Oregon couldn’t be accomplished by reference to written codes alone. In order to complete our agency’s message, we needed to be effective teachers and consultants in addition to safety standard enforcers and providers of written codes.

Lessons learned from example stay with us throughout our lives.

Our audiovisual library is an integral part of this proactive OR-OSHA emphasis. Because we believe that a safe and healthy workplace is everyone’s right, we’re pleased to offer more than 600 videotapes, films, and slides for loan to employers and workers across the state. These training tools “set good examples” for employers and workers in popular and highly effective formats.

Our videotapes, films, and slides cover a wide range of safety and health topics and appeal to various age groups and occupations.

We hope that everyone will discover and use this tremendous resource. If you are close enough to visit in person, the OR-OSHA Resource Center/AV Library is located in the basement of the white marble-faced building at 350 Winter Street NE, in Salem. That’s at the intersection of Center and Winter Streets. The library is open from 8 a.m. to 5 p.m., Monday through Friday.

Before you can borrow materials, you’ll need to provide a small amount of information. You may call 1-800-922-2689 or (503) 947-7453 to request borrowing privileges, and we’ll set up an account in your name. You may then use our automated customer service system to order materials by phone day or night (except 1-2 a.m., Tuesday through Saturday). Materials generally may be kept for two weeks, although arrangements may be made for extended loans.

Some of many new titles in the OR-OSHA AV Library include:

- Hypothermia: Cold Weather Protection (#759)
- It’s Your Back: Don’t Break it: Back Safety for Home Care Workers (#765)
- Unarmed Stage Combat (Drama, stage fights) (#761)
- The Right Moves: Ergonomics in the Workplace (#764)
- Welding Safety (#741)
- Targeting Violence in the Workplace (#469)
- Extinguidores de Incendios/Fire Extinguishers (Spanish #697, English #698)
- First Aid for Schools (#690)
- OSHA Recordables (Explains injury and illness form 200, #731)
- When Fire Strikes: Commercial Kitchen Employees (#694)
Is it time to replace your hard hat?

By Dian Cox
DCBS Communications

Sometimes, a work-worn and battered hard hat becomes an old friend or a symbol of seniority on a jobsite. However, if that hard hat fails when it is needed, the price paid by its wearer may be fatally high. Although hard hats have no “expiration date” printed on them — unlike prescription medicines — some manufacturers recommend replacing hard hats after no longer than five years.

More than 70,000 head injuries occur nationwide each year, and, in 83 percent of incidents, those injured were not wearing hard hats. It is the responsibility of employers under the law to conduct a hazard assessment, provide personal protective equipment, and train workers to use it properly. Workers need hard hats whenever they work around heavy machinery or are exposed to falling or flying objects, electrical shock from falling wiring, burns, or chemical splashes.

It is the responsibility of the worker not only to wear the hard hat when a job requires one, but to inspect the hard hat and to see that it is replaced when necessary.

Workers should be instructed to replace their hard hats if they see deep gouges or any cracks in the shell, torn adjustment slots, or fraying material, rips, or cuts that might affect the internal suspension systems. Other indications that it’s time to replace hard hats are when the originally shiny surface has turned dull or chalky-looking, or when rings with a common center appear on the shell.

Hard hats should be cleaned regularly with a soft cloth or sponge, water and a mild detergent. This not only helps extend the life of the hat, it makes it easier to see cracks, rings, or other problems that would indicate that the hat should be replaced.

Workers should avoid sitting or standing on their hard hats, as both activities could weaken the shell of the hard hat. Even without such abuse, plastic hard hats may eventually become brittle. They should be tested occasionally by slightly flexing the brim.

Bump caps, which are designed for low head-clearance situations, are not suitable as substitutes for hard hats. Hard hats should have at least one inch between the crown strap and the suspension. Fit may need to be adjusted from time to time. Hard hats should not be so tightly fit as to cause discomfort when worn for several hours.

Employers must ensure that employees have available and wear whatever PPE is needed on a job. After engineering controls, machine guarding, and safe work practices are in place, a hazard assessment is the next step. When determining what PPE must be provided for workers, Oregon OSHA’s consultative services and Resource Center can help by providing full text of rules, manuals, and tapes.

It’s time to replace your hard hat when...

- Tears or cuts appear in the nylon straps or webbing of the internal suspensions
- Cracks appear in the shell or the internal suspension
- Rings with a common center appear on the shell
- The shiny surface the shell had when it was new has turned chalky- or dull-looking
- The shell becomes brittle. Test for brittleness by slightly flexing the brim of the helmet
- Deep gouges are cut into the shell
**Description of accident**

At the time of the accident, two workers were in the process of removing and replacing roofing materials on a commercial building to stop a roof leak. The victim and a fellow employee were removing roofing debris and taking it to the roof edge to be removed from the worksite.

As the victim was walking backwards on the roof, away from the roof edge, in an effort to untangle a rope being used for debris removal, he caught his foot on the edge of a domed skylight and stumbled, falling onto the skylight. He attempted to roll off the skylight. It cracked and broke. The victim fell through the skylight, landing approximately 20 feet below on a concrete floor. Workers from the business occupying the building came to the aid of the victim and called 911. The fire department responded and transported the victim to a local hospital where it was determined that he had suffered a fractured right wrist and severe bruising.

**Accident findings**

The investigation revealed that the skylights had not been assessed by the owner of the building or the contractor as to the structural integrity of the plastic cover dome. The building was approximately 24 years old and the skylight covers had become brittle and were not capable of withstanding the minimum 200 pound weight requirement. When employees are exposed to skylight covers or any other type of covers while working on roofs, the employer must take all corrective measures to ensure that the covers are capable of withstanding the required minimum weight that may be imposed upon them. Also, there were no barricades or guards to prevent anyone from coming into close proximity to the skylight covers.
Description of fatal accident

On the day of the accident a three-man crew was in the process of removing a cedar tree located next to a house. The victim was to climb the tree, trimming off limbs on the way up and cutting off portions of the trunk on the way down, while the other two employees dragged away the debris.

Using a chain saw, the victim cut off limbs while climbing to a crotch in the tree located approximately 35 feet above the ground. He then released his climbing belt and free-climbed into the crotch of the tree. Once in the crotch of the tree he reconnected his climbing belt, preparing to resume cutting operations. The victim did not attach himself to an available secondary life line.

The victim, while in the process of starting or operating the chain saw, allowed it to come into contact with his climbing belt. The climbing belt was severed. As a result the victim fell approximately 35 feet landing on his left side, shoulder, and head. Although emergency medical technicians were summoned, they were unable to revive the victim.

Accident findings

The employer did not ensure that employees were adequately supervised and used all required personal protective equipment. Employees indicated that the employer had observed the victim use a chain saw to cut limbs as he climbed trees while using only his lanyard. The employer hadn’t told the employee that he must be doubled-tied when performing this task. The firm did not have a required safety committee and had not fully implemented a hazard communication program.

This accident could have been prevented if the employer had a system for adequately supervising his employees, including on-site follow up to ensure the proper use of personal protective equipment and trimming techniques.
limits for methylene chloride are 12.5 per million (ppm) for an 8-hour action level and 25 ppm for an 8-hour permissible exposure limit (PEL). The previous PEL enforceable by Oregon OSHA was 500 ppm. The short-term exposure limit (STEL) has been reduced from 2,000 ppm measured over five minutes in any 2-hour period to 125 ppm as a 15-minute exposure. The ceiling limit has been deleted.

With the reduction in the PEL by 20 times, the Occupational Health Laboratory estimates that overexposures will result at these new levels for painters, furniture strippers, dip tank operators and foam manufacturing workers.

1,3-butadiene is commonly used in the production of rubber, resins, and polymers for pipes and automobile parts, latexes for carpet backing, and as an intermediate in the production of other chemicals, such as fungicides. Exposure to 1,3-butadiene can occur through inhalation of the gas or through skin contact or through ingestion. Short-term exposure can cause mental confusion, nausea, headache, and light-headedness; longer exposure to high concentrations can cause unconsciousness and even death. Skin contact can cause irritation and skin burns if the chemical is allowed to remain on the skin. Long-term (chronic) effects can include cancer, cardiac effects, central nervous system effects, and skin and eye irritation. The new exposure limits are designed to better protect workers from the adverse health effects.

The Oregon Safe Employment Act (OSHAct) provide standards which limit the concentration of air contaminants employees may be exposed to in the workplace. The new exposure limits for methylene chloride are 12.5 per million (ppm) for an 8-hour action level and 25 ppm for an 8-hour permissible exposure limit (PEL). The previous PEL enforceable by Oregon OSHA was 500 ppm. The short-term exposure limit (STEL) has been reduced from 2,000 ppm measured over five minutes in any 2-hour period to 125 ppm as a 15-minute exposure. The ceiling limit has been deleted.

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The new PEL is 1 ppm and the new STEL is 55 ppm, as a 15-minute sample. An action level of 0.5 ppk was also adopted. The previous PEL enforceable by Oregon OSHA was 1,000 ppm.

An overview of the requirements for both of the new standards include provisions for initial and periodic air monitoring, engineering controls, personal protective equipment (PPE), regulated areas, medical surveillance, training, hazard communication, and recordkeeping.

Questions and answers from page 3

Q What tests (air sampling) are required to be taken, and does it change when the work task changes?
A The atmospheric tests that are required are oxygen level, lower explosive limit, and any toxic air contaminants that may be present [1910.146(b) and 1910.146(c)(5)(ii)(C)]. The rule also requires that there be no atmospheric hazards while a space is occupied, therefore if work being done inside the space may create a hazardous atmosphere, continuous monitoring must be accomplished [1910.146(c)(5)(ii)(D)].

Q Once an area is declared a non-permit confined space, what are subsequent entry requirements?
A When a permit-required confined space is reclassified as a non-permit required confined space, means of assuring that no atmospheric hazards are present while the space is occupied must be accomplished. Additionally, if any subsequent hazards arise during the entry, the space must be evacuated immediately and reclassified as a permit-required confined space.

See “Ask OSHA,” page 12

The full text of the rules adopted by Oregon OSHA may be found in OAR 437 Division 2, Subdivision I, Personal Protective Equipment and OAR 437 Division 2, Subdivision Z, Toxic & Hazardous Substances, Oregon Rules for Air Contaminants (OAR 437-002-0382).
Preparing today for tomorrow’s challenges

“Preparing Today for Tomorrow’s Challenges,” the Worker & Supervisor Safety & Health Conference sponsored by Oregon OSHA and the Cascade Chapter of the American Society of Safety Engineers, will be March 3-5 at the Eugene Hilton and Hult Center in Eugene.

This year’s conference agenda features 37 sessions covering safety and health management, construction issues, environmental and industrial hygiene, ergonomics, and safety committees. Participants will learn ways to keep workplace illness and injury rates down, reduce accidents, eliminate fatalities, and reduce workers’ compensation costs. The conference offers networking opportunities and promotes cooperative efforts among labor, management, and government.

New this year are demonstrations complementing the conference program. Exhibitors will be showing the latest in safety and health products and services.

The conference offers three days of safety and health training for $100, $85 for ASSE members. Registration is accepted by mail and by fax until February 18, after which registration will be on-site only. Contact the Conference Section, (503) 378-3272 (V/TTY), for information and registration materials.

The following awards were presented at the 7th Annual Oregon Pulp & Paper Workers Safety & Health Conference December 2-5, in Eugene

**Pacific Northwest Pulp & Paper Industry Safety Committee Award**
Given for continuous commitment to excellence and for making significant accomplishments having a positive impact on the safety and health of workers in an organization. Presented to Central Safety Committee, Boise Cascade, Vancouver Specialties Vancouver, Washington

**Pacific Northwest Pulp & Paper Employer Award**
Given for going the extra step to ensure a safe and healthful work environment for all employees. Presented to Fort James, Halsey, Oregon

**The Jack Kirkpatrick Award**
Given for outstanding contributions to safety and health in the pulp and paper industry. Presented to Vern Durgin, International Paper, Gardiner, Oregon
Kit Andreason, Kimberly-Clark, Everett, Washington
James R. Huff, Boise Cascade, St. Helens, Oregon

**Special Recognition**
Grants are available to help solve workplace safety and health problems

by Sharon Dey
Ergonomic Technical Consultant, Oregon OSHA

Worksite redesign grants of up to $150,000 for research and development are available through the Department of Consumer & Business Services’ Worksite Redesign Grant Program. Grants may be used to research, develop and carry out solutions to workplace injury or illness problems that can’t be solved with readily available equipment or technology.

Under DCBS’ program, grant recipients are required to contribute at least 10 percent to the total cost of the project. Once a grant is awarded, most activities associated with the project are funded. Covered expenses may include costs for the design, internal or external staff time on the project, consultant evaluations, construction, materials and components, and costs associated with developing user guidelines, training, project evaluation, and communication of project results.

Grants can be awarded to small and large employers and associations for a variety of workplace problems. Examples of funded projects include semi-automation of a process, redesign of a self-adjusting loader/stacker in the wood products industry, redesign of a manual material handling process in the metals industry, and design of durable bus seats for a transit district.

If you have looked at grant application packages in the past, rest assured that our application materials for the Worksite Redesign Grant Program have been improved.

For more information about the grant program or application materials, please call Mark Noll or Sharon Dey, (503) 378-3272 or (800) 922-2689.
“Ask OR-OSHA,” from page 9

Q Please explain what “designed for continuous employee occupancy” means.
A A space that’s designed for continuous employee occupancy is a space, room, area, building, structure, etc. that is designed for human occupancy. For example, an office building is designed for human occupancy, while a grain storage silo is not designed for human occupancy.

The preamble to the rule, which was printed in the January 14, 1993, Federal Register, Volume 58, Number 9, includes a discussion regarding the phrase “continuous employee occupancy,” and also states the “…key to which is whether a human can occupy the space during normal operating conditions.”

Questions?

OR-OSHA has field offices across Oregon. If you have questions or need information, call us toll free at 1-800-922-2689 or phone one of the offices listed below. (All phone numbers are V/TTY).

### Portland
- Address: 9500 SW Barbur Blvd., Ste. 200
- Telephone: (503) 229-5910
- Consultations: (503) 229-6193

### Medford
- Address: 1840 Barnett Rd., Ste. D
- Telephone: (541) 776-6030
- Consultations: (541) 776-6030

### Eugene
- Address: 1140 Willagillespie, Ste. 42
- Telephone: (541) 686-7562
- Consultations: (541) 686-7913

### Salem
- Address: DAS Bldg. 1st. Floor
- Telephone: (503) 686-7913
- Consultations: (503) 686-7913

### Bend
- Address: Red Oaks Square 1230 NE Third St., Ste. A-115
- Telephone: (541) 388-6066
- Consultations: (541) 388-6066

### Pendleton
- Address: 721 SE Third St., Ste. 306
- Telephone: (541) 276-9175

### Salem Central
- Address: 350 Winter St. NE, Rm. 430
- Telephone: (503) 378-3274
- Consultations: (503) 378-3274

Visit us on the Internet World Wide Web at: http://www.cbs.state.or.us/external/osha