Oregon OSHA Launches a Statewide Program to Reduce Silica Dust Exposures

The Oregon Occupational Safety and Health Administration (OR-OSHA) has initiated a special emphasis program starting January 1, 1997, to reduce and eliminate the workplace incidence of silicosis from exposure to crystalline silica. The special emphasis program applies to all workplaces under OR-OSHA jurisdiction in the general industry, construction, and agriculture sectors.

Silicon dioxide (SiO$_2$) is a chemical compound that includes amorphous silica (noncrystalline), crystalline silica (sand, quartz), and silicates (aluminum silicate). Crystalline silica is a component of sand, quartz, and granite rock. The crystalline form of silica is the most prevalent material that has the potential to cause health problems associated with the respiratory system. Different forms of crystalline silica include quartz, tridymite, and cristobolite, with quartz being the most common.

Inhalation of airborne crystalline silica can lead to deposition of silica particles on the lungs. These deposits can cause scarring of the lung tissue, resulting in the development of silicosis — a disabling, progressive, and sometimes fatal disease. Symptoms of silicosis include coughing, difficulty in breathing, and shortness of breath. The National Institute for Occupational Safety and Health (NIOSH) has estimated that each year two million workers in the U.S. are exposed to crystalline silica, with about 300 deaths attributable to silicosis. Silicosis is completely preventable by following measures to reduce exposures to crystalline silica. The inhalation of crystalline silica dust can also lead to...

please turn to “silicosis” (page 2)

Worksite Redesign Grants Awarded

The Department of Consumer & Business Services (DCBS) recently awarded its first Worksite Redesign Program grants. Jointly administered by the Workers’ Compensation Division (WCD) and the Oregon Occupational Safety and Health Division (OR-OSHA), the program offers research and development grants to Oregon employers and employer groups. Grants are awarded to develop and put into use solutions to workplace ergonomic problems that lead to on-the-job injuries and illnesses and that can’t be solved with readily available equipment and technology.

The maximum award for a Worksite Redesign Program grant is $100,000. The grant recipient is responsible for...
Administrator’s Message

“A Look Behind, A Look Ahead.”

It’s hard for me to believe that a year has come and gone since I became Administrator of Oregon OSHA. Looking back I must say it has been an interesting year.

I started here on January 11, 1996, amid the usual array of wild speculation. Much of the speculation was rooted in my background, which is very diverse. I’ve worked both for management and for labor. I’m a lawyer. I’ve done my share of hard physical labor. I heard many predictions about what I would do with, for, and to Oregon OSHA. I said that I wanted to stay the course.

I spent much of the past year meeting with groups of people, often giving presentations, and always trying to get out the message that I wanted Oregon OSHA to continue as it had in the past. I assured people that I had no intention of “de-fanging” or emasculat-

Silicosis (from front page)

chronic airway obstruction and bronchitis, tuberculosis, and possibly lung and/or stomach cancer.

Industries and activities where high exposures to crystalline silica dust have been found or are anticipated include: metal casting foundries; glass manufacturing; cut stone and stone products manufacturing; clay refractory manufacturing; asphalt paving material manufacturing; pottery and ceramic products manufacturing; abrasives and abrasive products manufacturing; paint and rubber manufacturing, where powdered silica is used; food and beverage preparation, where calcined diatomaceous earth is used as a filtering media; abrasive blasting using an abrasive that contains silica; abrasive blasting of/on concrete (regardless of the abrasive used); demolition of concrete and masonry structures; dry sweeping or pressurized air blowing of concrete, rock, or sand dust; sawing, hammering, grinding, drilling, and chipping of concrete and masonry structures; crushing, loading, hauling, and dumping of rock; onion and potato processing.

Elements of an effective silicosis prevention program should include: initial personal air monitoring, training and information to workers on crystalline silica (hazard communication training), availability of air monitoring data to workers and OR-OSHA, an effective respiratory protection program, hygiene facilities, and appropriate recordkeeping, and regulated areas. For assistance in developing a silicosis prevention program, employers can contact their local OR-OSHA office to request free consultative services.

OR-OSHA standards that may be cited include the following: hazard communication; respiratory protection; general personal protective equipment; permissible exposure limits; recordkeeping; safety committees; abrasive blasting controls; supervision; employee training; accident prevention and warning signs; safety and health programs; access to employee exposure and medical records; and personal hygiene.

OR-OSHA has developed a pamphlet titled “Occupational Health & Safety Guidelines for Preventing Silicosis and Deaths to Employees Exposed to Crystalline Silica.” For a free copy of the pamphlet or to check out a video on crystalline silica and silicosis, contact the OR-OSHA Resource Center at (503) 378-3272. Employer and employee training will be provided by an OR-OSHA industrial hygienist on request. This training will include information on the chemical composition and types of silica; products containing silica; hazard recognition; description of the health effects from overexposure to silica; sampling theory and methods; how to calculate the permissible exposure limits (PELs) for single-substance exposure and mixtures; and how to prevent overexposure, including crystalline silica control technology.

In December 1995 Federal OSHA issued its report generated by the Priority Planning Process in which crystalline silica was identified as a priority rulemaking action. Priorities selected for rulemaking will be added to Federal OSHA’s regulatory calendar as other standards now on the calendar are completed and resources become available. As with past rules developed by Federal OSHA, OR-OSHA would be required to adopt a crystalline silica standard within six months of Federal OSHA’s effective date of adoption.

The inhalation of crystalline silica dust can lead to chronic airway obstruction and bronchitis, tuberculosis, and possibly lung and/or stomach cancer.
Administrator’s Message (from page 2)

I also said that I wanted enforcement to continue to try, whenever possible, to be helpful to employers and employees alike. From where I sit, I believe that message is getting out.

So, what does next year hold. Partly that depends on the legislature. We’ve requested a budget which would primarily maintain the status quo. We’ll be asking for some modest staffing increases in consultation (one employee), training (two employees), and appeals (four employees). Aside from those changes, we’ve asked that everything else be maintained at current levels.

I want to continue the trend toward more user-friendly enforcement. I firmly believe that where the situation warrants, we must take strong action. Yet, I’m gratified that I continue to hear reports from employers that our inspections are helpful because they’re very informative. One person wrote recently: “Do I like $100.00 fine. No! Do I feel the help he [the compliance officer] gave was worth $100 to me or my employees. Hell yes!!” It’s responses such as this that make this job truly a pleasure. My goal for 1997 is to make this attitude more prevalent. It’s also my goal for employers and employees alike to understand that we at Oregon OSHA are here primarily to help make Oregon workplaces safer and more healthful. There are many ways to do this, and only one of those ways is through enforcement. We offer a full range of consultative, technical, and training services in addition to enforcement.

I wish you all a happy new year. Let us all resolve to make 1997 the safest and most healthful year yet for Oregon workers.

Department of Consumer & Business Services
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Information requests should be directed to: Jani Johnston, Editor, at (503) 378-3272 (V/TTY) or 1-800-922-2689.

“Health & Safety Guidelines for Preventing Silicosis & Deaths to Employees Exposed to Crystalline Silica.”

The issue of preventing silicosis and deaths caused by work-related crystalline silica exposure is important to Oregonians. This booklet has been developed to: provide a description of silica; cover the various work activities that employees perform where their exposures to respirable crystalline silica may exceed permissible limits; describe the health hazards associated with crystalline silica exposures; cover OR-OSHA permissible exposure levels for crystalline silica; and to discuss how to prevent or reduce exposures to crystalline silica.

To receive a free copy of this publication call OR-OSHA’s Resource Center at (503) 378-3272 or 1-800-922-2689 (V/TTY) or fax your request to (503) 373-7014.

For Preventing Silicosis & Deaths to Employees Exposed to Crystalline Silica
Emergency Eyewash Fountains and Deluge Showers

General requirements:

Emergency eyewash fountains and deluge showers must be immediately available at fixed work sites wherever materials that are hazardous, toxic, or corrosive are handled. At non-fixed work sites, clean water under pressure must be immediately available to flush the eyes. If freezing of the water lines could be a problem, insulation or heat tracing may be required.


If there’s a possibility that a chemical could splash an employee’s eyes or body, either an eyewash alone or a combination eyewash and shower unit may be necessary to provide first-aid treatment. Employers must decide when and where to install these units.

When is an eyewash required?

- Does the Material Safety Data Sheet (MSDS) for the chemical show that it’s caustic, corrosive, toxic, or very hazardous?
- Does the MSDS show that serious eye damage may result from contact with the chemical?
- Are warnings such as “causes chemical burns” or “causes permanent eye damage” found in the health hazards section of the MSDS?

When is a portable eyewash fountain appropriate?

Portable units may be used when clean, fresh water is not available to install a plumbed-in unit. These units must be regularly emptied, flushed, and refilled with water, according to the manufacturer’s instructions. An antibacterial additive must be added each time the unit is refilled with tap water.

Please turn to “Emergency Eyewash” (page 5)

Grants (from front page)

10 percent (10%) of the total cost of the project. At the successful conclusion of a worksite redesign project, DCBS may award “product grants” to employers who apply for partial funding to purchase the product that has been developed.

Woodfold-Marco Mfg., Inc., produces accordion folding doors, interior wood shutters, and a line of hardwood kitchen components. Located in Forest Grove since 1957, it became a employee-owned company in 1990. Woodfold-Marco’s grant will pay for the design and construction of a prototype machine to press “T” bead vinyl hinge material onto each panel of the company’s accordion doors. This will eliminate repetitive motions and stressors that currently result in injuries. There’s no existing technology to solve this ergonomic problem, which Woodfold-Marco estimates costs the company $27,000 a year in direct and indirect injury-related expenses. The cost of developing the solution will be $23,618, less than one year’s total injury costs.

The other grant recipient, the Multnomah County Animal Shelter, euthanizes and cremates thousands of animals each year. The shelter’s animal technicians have suffered sprains and strains from handling the animals and injuries from animal attacks. The animal euthanizing and handling methods are similar in facilities throughout the state. No current technology exists to solve these injury problems. The grant will pay for research and development of equipment which will greatly reduce or eliminate the lifting, carrying, lowering, pushing, and pulling tasks associated with the animal disposal process and will reduce the likelihood of animal assaults and exposure to infectious diseases. The total grant is for $14,748.

We urge employers and employer groups to submit applications for Worksite Redesign Program grants and encourage early consultation with program staff to assure the best possible grant applications. After an application is received, it is reviewed by a WCD or OR-OSHA consultant. The consultant may do an on-site evaluation. The consultant prepares a report for the Worksite Redesign Committee, which is composed of three labor and three management representatives, and one representative from DCBS. The committee then gives its recommendations to the DCBS Director, who makes the final decision. To request an application packet that includes the program rules, call WCD at (503) 945-7585. To ask questions about the program or the application materials, call the same number or OR-OSHA at (503) 378-3272.
When is an emergency deluge shower required?
Evaluate the need for an emergency shower in a similar way as for an eyewash. If there is a possibility that either highly corrosive or highly toxic chemicals may splash over substantial areas of the body, then a shower is required.

Where should the deluge shower be installed?
Evaluate the location for the shower as for the eyewash. The one exception is for a corrosive or toxic gas such as anhydrous ammonia or chlorine. For these gases, locate the emergency eyewash and shower unit outside the area or room where the gas would be released.

What are the installation requirements?
An acceptable emergency shower has:
• Clean, pure water;
• A valve that stays on without requiring the use of the employee’s hands;
• A water flow of at least 30 gallons per minute;
• Unobstructed access to the unit; and
• A highly visible sign to identify the location.

What are the maintenance requirements?
Flush both eyewash and shower units for several minutes every week. Weekly flushing not only ensures that the units are operational, but also clears the water lines of stagnant water. There are some types of usually harmless bacteria that grow in stagnant water than may be extremely harmful to injured eyes.

Is there any other requirement if the unit is located outdoors or could freeze?
If the water lines could freeze, then the unit must have a heated water supply, and either insulation...
1996 Safety Awards

Peter De Luca, right center, administrator of the Oregon Occupational Safety and Health Division (OR-OSHA), presenting a safety recognition award to Don Manning of the Georgia-Pacific Corp. Toledo mill’s Accident Prevention Committee on September 5, 1996.

The award recognizes the Toledo pulp and paper mill for achieving a major safety milestone: one million hours worked without a lost-time injury. Pictured, from left, are Robin Bauer and Dale Phibbs of the APC; Safety Director Bill Knowles; Vice President Toledo Operations Bill Kertia; Manning; De Luca; and APC members Bryon Kaps, Dennis Long, Larry Davis, and Ed Durrenberger.

In addition, the following firms have received awards in 1996 for reaching a milestone in the number of hours worked without a lost-time incident:

- Baugh Construction, Fab 15 Project, Aloha ........................................ 200,000 hours
- Baugh Construction, Intel RAI Project, Hillsboro .......................... 300,000 hours
- City of Hillsboro, Joint Water Treatment Plant ............................. Seven years
- Georgia Pacific, Toledo ................................................................. 300,000 hours
- Glenbrook Nickel Company, Riddle ............................................. 1,000,000 hours
- Morrison Knudsen, Tri-Met Westside Project ......................... 235,000 hours
- New Tech Electric, Hillsboro ....................................................... 500,000 hours
- Ramada Inn, Beaverton ................................................................. 1,000 days

Workers and management of these companies should be proud of their significant accomplishments. Congratulations on your dedication to occupational safety and health!

In Memory of

Jerry Hoard did. Jerry was a 14-year veteran as an occupational safety specialist in OR-OSHA’s Technical Section.

The public and other agency employees depended on Jerry for accurate interpretation of Oregon’s safety codes. He knew why and when most codes were developed, if he hadn’t actually written them himself. He was often looked to as a mentor for staff, especially in the Technical Section. Jerry treated all staff and the public with a high level of respect.

Jerry was one of the founding employees of the Building Codes Agency in 1974. He wrote the original safety standards for mobile homes in Oregon, and served as deputy administrator of the agency.

Before receiving a degree in structural engineering from the Oregon Institute of Technology, Jerry was a member of an Air Force air-rescue squad during the Korean War. He was stationed on Johnson Island, a man-made island in the South Pacific. He maintained diesel generators and electrical lines for the underground hospital and rescue squads. Other military travels took him to Washington, California, and Hawaii.

Jerry died January 3, 1997. He was a valued colleague and our friend. We will miss him greatly.

A Gerald L. Hoard, Jr. Memorial Scholarship Fund has been established with the Oregon State University Foundation. Tax deductible contributions can be mailed to: OSU Foundation, 517 Snell Hall, Corvallis, OR 97331. Please make checks payable to the OSU Foundation. Include on your check that it is for the Gerald L. Hoard, Jr. Memorial Scholarship Fund.
Description of fatal accident

In June 1994 at a Bend company, four unit-high stacks of lumber was being transported by forklift from one location to another for the purpose of remodeling a building. The victim was the forklift operator. There were no witnesses to the actual accident. When the victim was found, the forklift forks were partially under a one-unit stack of lumber. (A unit measured approximately 16 feet long by 45 inches wide by 52 inches high). Directly behind the unit of lumber on the forks were several additional units stacked four-units high, making the stacks approximately 16 feet high each.

The forklift mast measured 8 feet high with the forks in the down position. The accident scene revealed that the second, third, and fourth units of lumber behind the unit the victim was attempting to move fell over toward the forklift. The fourth unit came over the forklift’s mast, onto the top of the canopy, crushing and folding it on the rear engine compartment. The units then came down on top of the victim, crushing him in the seat of the forklift.

Accident summary

Accident type: Crushed
Industry: Wood products manufacturing
Employee job title: Forklift driver
Age/Gender: 20/Male

Accident Findings

The investigation revealed that the employer had not developed any safety programs, policies, or procedures. There was no forklift training given to employees. The employer didn’t have a safety committee, nor developed any specifically required programs such as lockout/tagout or hazard communication. The employer didn’t have a clear idea about safety and health requirements for its firm. The firm had a consultation by their workers’ compensation insurance carrier the previous year, in which the carrier had emphasized the need for the company to comply with safety and health rules. The company hadn’t followed the carrier’s recommendations.

Interviews conducted during the investigation revealed that the company had no policy on stacking lumber; the plant manager stated employees were to “just stack lumber units as high as you can.”

Overall, the firm’s safety and health efforts didn’t provide a safe and healthful workplace for the employees.
Hazard Information Bulletins (HIBs)

The Directorate of Technical Support, U.S. Department of Labor Occupational Safety and Health Administration issues Hazard Information Bulletins (HIBs) in accordance with OSHA Instruction CPL 2.65 to provide relevant information regarding unrecognized or misunderstood health hazards; inadequacies of materials, devices, techniques; and safety engineering controls. HIBs are initiated based on information provided by field staff, studies, reports, and concerns expressed by safety and health professionals, employers, and the public. Information is compiled based on a thorough evaluation of available facts and literature, in coordination with appropriate parties. HIBs are used as an outreach tool for accident prevention.

HIB Number 1
Attaching an Unguarded Blowtorch Regulator to a Portable Propane Cylinder

The Denver Regional OSHA Office brought attention to a fatal accident involving a 20-pound propane cylinder regulator that broke off when the cylinder fell. The regulator was vulnerable to this kind of damage because it protruded past the cylinder’s protective collar. The use of unguarded regulators on propane cylinders appears to be a common practice found on construction sites.

Description of Accident
A construction worker who didn’t receive job-related training entered a manhole with a 20-pound Department of Transportation (DOT)-approved propane cylinder with a “Big Bertha” blowtorch assembly attached. While attempting to melt ice in the manhole, the employee placed the cylinder on a step of a portable ladder. The cylinder fell from the ladder and the regulator hit the floor of the manhole. The regulator broke free from the cylinder’s main valve assembly, releasing gas and liquid propane into the manhole. The gas in the manhole ignited, resulting in a fire that caused the worker’s death.

A regulator that protrudes past a portable cylinder’s protective collar (as shown in the illustration) can create a hazardous condition. In this instance, paragraph (h) of the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926.153, which addresses liquefied petroleum (LP) gas containers and equipment used inside of buildings and structures, applies. The standard states that when operational requirements make the use of cylinders outside of buildings and structures impractical these cylinders may be used inside of buildings and structures if paragraphs (h)(2) through (11) of 25 CFR 1926.153 standards are followed. Title 29 CFR 1926.153(h)(4) states that when regulators are used the regulator must be connected directly to the container valve and paragraph (h)(5) states that a valve on a container having a water capacity greater than 50 pounds (normal 20-pounds LP gas capacity) shall be protected from damage while in use or storage. It should be noted that the pertinent provision for using this equipment installed outside (29 CFR 1926.153(g)) requires that “[c]ontainers shall be upright upon firm foundations or otherwise firmly secured.” In this instance, the cylinder was not secured nor on a firm foundation, although it was used “inside” (within a confined space). It is recognized that the incident described above happened at a construction site. If a similar incident had occurred at a general industry worksite, 29 CFR 1910.110(c)(5)(a) through (l) would be applicable. Title 29 CFR 1910.110(c)(5)(d) specifically requires that valves on such containers shall be protected.

Findings
Recommendations for use by employees and employers involved in similar operations should include the following:

a. The employee and supervisor should be given training on the recognized and associated hazards for the work that is to be performed.

b. Training on what equipment is needed for the job and how to use this equipment.

c. Supervisors should determine that employees are using properly assigned equipment.

d. Critical parts of equipment shall be protected from danger.

In addition, 20-pound LP gas cylinders like the one illustrated to the left, are addressed under the National Fire Protection Association’s (NFPA’s) “Standard for the Storage and Handling of Liquefied Petroleum Gases,” 58-1995 section 2-2.4.1 “Portable Containers Appurtenance Physical Damage Protection.” NFPA recommends that such cylinders incorporate protection against physical damage to appurtenances and immediate connections to those while in transit, storage, while being moved into position for use, and when in use, except in permanent residential and commercial installations. Section 2-3.7(b) states that valves, regulators, gauges, and other container appurtenances shall be protected against...
physical damage. NFPA 58-1995 recommendations for the safe use of cylinders of this type include:

a. Recessing connections into the container so that valves will not be struck if the container is dropped on a flat surface.

b. Providing a ventilation cap or collar designed to permit adequate pressure relief valve discharge and capable of withstanding a blow from any direction equivalent to that of a 30-pound (14-kilogram) weight dropped four feet (1.2 meters). The standard also requires that the construction of the cap collar must be such that the force of a blow will not be transmitted to the valve. In addition, collars must be designed so they don’t interfere with the free operation of the cylinder valve.

c. All persons employed in handling LP gas shall be trained in proper handling and operating procedures. Such training shall be documented (paragraph 1.5 of NFPA 58-1995).

d. DOT cylinder specification containers be installed only above ground, and shall be set upon a firm foundation, or otherwise firmly secured (paragraph 3-2.4.1).

Employers should be aware that the hazardous condition described above is likely to be found at construction sites. Additionally, they should be aware of the recommended procedures for eliminating this hazard.

**HIB Number 2**

**Certain Keller/Columbia Types I and IA Industrial Fiberglass Extension Ladders**

Pursuant to a fatality investigation, the Boston Regional OSHA Office called attention to a potential hazard of collapse of certain fiberglass extension ladders. The ladder in question is a Keller Model #5128, 28-foot fiberglass extension ladder with a type IA, 300-pound rating. It’s one of 11 models sold under the trade names of Keller or Columbia, all of which may incorporate this particular characteristic. The manufacturer, Keller Industries, Inc., of Fort Lauderdale, Florida, in cooperation with the U.S. Consumer Product Safety Commission (CPSC), has recalled all of these ladders with the CPSC Press Release #96-095 issued on April 10, 1996. Since these are industrial extension ladders, it’s important to be aware of this potentially hazardous condition.

**Description of Accident**

On the ladder involved in the accident, a brace is utilized on each siderail and attached to the second rung at the top and bottom of the base section for additional support. The brace on the ladder can interfere with the operation of the rung locks on only one rung, the rung below the point of full extension (second rung from the top). The braces on other models may be installed on different rungs of the base section. Thus, under certain circumstances, when setting up the ladder, the rung locks may appear to be properly engaged when in fact, they are not. The ladder may collapse when sufficient weight is placed on it possibly causing the user to fall.

**Findings**

Employers must comply with the manufacturer’s recall instructions and stop using the ladders immediately. Keller is offering a replacement ladder, refund of the purchase price or rung lock replacement. Keller is recalling 29,691 of these Type I and IA (heavy duty) industrial ladders.

The following ladders are the subject of this recall:

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Model No.</th>
<th>Length</th>
<th>Color</th>
<th>Type</th>
<th>Dates Manufactured</th>
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“Learning from the Past, Building for Tomorrow”

“Learning from the Past, Building for Tomorrow” is the theme of the 25th Biennial Oregon Governor’s Occupational Safety & Health Conference, slated for March 3–6, 1997, at the Oregon Convention Center in Portland. Come network and learn ways to keep workplace illness and injury rates down, reduce accidents, eliminate fatalities, and reduce workers’ compensation costs.

The Governor’s Conference is jointly sponsored by the Department of Consumer & Business Services Oregon Occupational Safety and Health Division (Oregon OSHA) and the Columbia-Willamette Chapter of the American Society of Safety Engineers (ASSE).

Local, regional, national, and international experts will present more than 125 occupational safety and health programs, 20 of which are full-day workshops on Monday, March 3. More than 160 different companies will exhibit the latest safety and ergonomic equipment, software, personal protective equipment, consulting services, fall protection equipment, and training programs. The Exhibit Hall will also feature special interest areas focusing on construction safety, HAZMAT, vehicle safety, electrical safety, ergonomics, and the history of safety in Oregon.

Special events at the conference include a keynote address, “Rereading Optimism: Victim or Victor,” by Dr. Terry Paulson, whose programs empower leaders, teams, and the next generation of American workers to make change work. The Hoot Owl breakfast will feature a presentation by Dr. Rick Brinkman on “How to Deal with People You Can’t Stand; Bringing Out the Best in People at Their Worst.” Thursday, the final day of the conference, features an awards luncheon to recognize companies, associations, and individuals for their outstanding contributions to the field of occupational safety and health in Oregon.

The Governor’s Conference is once again the most affordable safety and health conference of its size in the country. The fee for Tuesday through Thursday is $85. The workshop day on Monday is $55 (including lunch). A one-day registration fee is being offered this year for $50 (Tuesday, Wednesday, or Thursday). Registration is accepted by mail until February 19, 1997. After this day, registration will be on-site and fees increase. So call today for more information and registration materials! Call Oregon OSHA Conferences at (503) 378-3272 (V/TTY).

“Portable Ladders — Types, Use & Care.”

Ladders are indispensable tools. We take them for granted in our day-to-day work and use them extensively in virtually all industries. Though they come in many sizes, shapes, and styles, they all serve the same purpose — to help us move vertically. This booklet contains information about safety requirements for portable ladders, how to select the appropriate ladder for a job, transporting ladders, maintaining and repairing ladders, and how to improve slip resistance. Also included in this publication are checklists on ladder hazards and ladder training. To receive a free copy of this booklet call OR-OSHA’s Resource Center at (503) 378-3272 or 1-800-922-2689 (V/TTY) or fax your request to (503) 373-7014.
Eight intrepid OR-OSHA trainers offer workshops and training programs on occupational safety and health to all the employers and employees in Oregon. During a one-year period these trainers put on more than 500 workshop sessions, covering 30 occupational safety and health topics, at more than two dozen locations throughout the state. Even this effort doesn’t meet the demand.

Workshops and training programs offered range from core programs such as “Safety Committee Operations,” “Accident Investigation,” and “Hazard Identification and Control,” to programs on more specific occupational safety and health topics including “Lockout/Tagout,” “Confined Space Entry,” and “Ergonomics in the Office.” New workshop and training programs are added every year.

One of the newest training programs to be added to the Training Section’s line-up is “Training for Safety and Success, A Guide to Effective On-the-Job Training.” This program is designed to help people who aren’t trained to be trainers, to become one. The program provides a means by which employers and employees can get up to speed on the training strategies and techniques they need to be successful at training employees, no matter what the job or task. A major issue addressed in the workshop is how important it is for an organization to do its own training, while not overlooking the parallel importance of training those who will be responsible for that training in how to train.

“Training for Safety and Success” participants will: find out how people learn, compare the advantages and disadvantages of classroom and on-the-job training, take jobs apart to determine what needs to be done to teach people to do them, plan and write objectives, get trainers ready to present, and evaluate or assess outcomes. The workshop provides each participant the opportunity to work on leadership and presentation skills during the program. It is presented in eight parts; each one building on the other to a dynamic finish, where all that’s been discussed culminates in one final, breakthrough activity.

This is just one of the exciting and valuable workshops to be offered at the upcoming Governor’s Occupational Safety and Health Conference (GOSH), March 3-6, 1997. I strongly encourage you to register to attend the conference and enroll in a workshop as well as the general sessions. You can be assured that you’ll encounter opportunities to acquire knowledge and skills to train and model effectively, while establishing and maintaining a safe and healthful work environment.

Oregon OSHA offers no-cost occupational safety and health training to employers throughout the state year-round to educate and help enable employers to implement effective injury and illness prevention programs. For additional information, please call the Registration Coordinator at (503) 378-3272 (V/TTY).
Emergency Eyewash (from page 5)

or plumber’s heat tape on the pipes to prevent freezing. Heat-traced units are commercially available, or you can build a unit that won’t freeze.

**Do employees have to be trained to use the units?**

Hazard Communication rules require employees to be trained in emergency procedures. For chemical exposures, this training logically includes the use of eyewash and shower units. As a practical matter, if employees are not trained to operate and use these units, when an emergency arises, they probably won’t use them when they need to.

**Is there any alternative to installing an eyewash?**

Yes. Sometimes, another safer chemical can be substituted for the hazardous one. This option has at least two benefits: safety in the workplace is increased, and the expense of an eyewash is saved.

**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).

<table>
<thead>
<tr>
<th>Location</th>
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<th>Consultations:</th>
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<tbody>
<tr>
<td>Portland</td>
<td>9500 SW Barbur Blvd., Ste. 200</td>
<td>(503) 229-5910</td>
<td>(503) 229-6193</td>
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<tr>
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Visit us on the Internet World Wide Web at: [http://www.cbs.state.or.us/external/osha](http://www.cbs.state.or.us/external/osha)

**Oregon Occupational Safety & Health Division**

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ADDRESS CORRECTION REQUESTED