

# OREGON HEALTH AND SAFETY RESOURCE

December (2001), January, February (2002)

To read OR-OSHA's  
Strategic Plan  
- FFY 2001-FFY 2005 -  
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*A story of rules improved through stakeholder input –*

## ***New bloodborne-pathogen standard adopted***

*By Marilyn Schuster, OR-OSHA Technical Services & Resource Center Manager*

When you get a notice from the government about a proposed change to a rule, do you respond with "Why should I bother to provide input? They'll do what they want to anyway"? Many Oregon employers and employees must, because we don't get very many comments on our rulemaking proposals.

A recent case in point was our proposal filed June 22; we notified stakeholders of OR-OSHA's intent to adopt by reference federal OSHA's changes to the Bloodborne Pathogens Standard. Congress had passed a law last November that directed federal OSHA to adopt rules requiring employers who are required to keep an OSHA

200 log to maintain a sharps injury log and to seek input from employees on identification, evaluation, and selection of safer medical devices.

***OR-OSHA's proposal comment period was open until August 3. As usual, we received minimal comment.***

We did, however, get a request from the Service Employees International Union to hold a hearing on the subject and to adopt different rules for Oregon. Because the SEIU represents 10 or more affected parties, we were obligated to hold a hearing. We sent out a

See "*bloodborne*," page 2

## ***Forklift safety: a rule revisited!***

*By Craig Hamelund, OR-OSHA Public Education Section*

I have been presenting our four-hour *Powered Industrial Truck Safety* educational workshop now for about three years, and I've enjoyed it, because all the attendees have had relevant practical experience that they're willing to share.

Most lift truck operators have learned exclusively through practical experience. During my workshops, I conduct random informal surveys, asking operators with 10 or more years of experience if this is their first *formal* forklift-safety education. Nearly always, the answer is yes.

In 1998, OSHA revised its operator training rule in the powered industrial truck safety standard; it was the *only* rule changed in the entire standard. The revision specifies that **forklift-operator trainers must be knowledgeable, trained, and experienced to train operators and evaluate their competence.** This should urge many of you to "train your trainer," if you haven't already done so.

See "*forklift safety*," page 11

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new notice July 19, indicating that hearings would be held on the afternoon of August 22 in Salem and on the evening of that same day in Portland.

OR-OSHA usually holds hearings during the day, but, in this case, the SEIU asked for an evening hearing to allow more workers to participate.

There was good turnout at both hearings. Many of the workers who would be directly affected told us what rule changes would mean for them. Many shared needle-stick experiences and expressed concern about the use of safer needle devices and the selection of such devices without employee input or not based on the needs of the particular worksite.

Following the hearings, technical staff at OR-OSHA reviewed all of the written and oral comments and determined that there was a compelling need to adopt rules differing from the federal standards.

At this point, OR-OSHA shared what we were intending to adopt with federal OSHA’s regional staff in Seattle to ensure that our standard would be viewed as effective as the federal standard, a required step for OSHA state plans. The Region assured us that our standard would be acceptable.

On September 14, we adopted the final amendments to the Bloodborne Pathogens Standard, which included several Oregon-initiated rules. Under the federal portion of our adopted standard, an employer must have exposure-control plans that accomplish the following:

- Reflect changes in technology to reduce or eliminate bloodborne pathogens exposures
- Document annual consideration and implementation of commercially available safer medical devices
- Solicit input from employees

The Oregon-initiated rules expand these obligations, especially in the area of employee involvement. Federal OSHA’s rule requires an employer to solicit input from employees when evaluating safer needle devices. Input from our hearings indicated that this language needed to be strengthened to allow employees to provide clearer input. We also had heard that some Oregon employers had purchased safer medical devices without consulting those who were expected to use them. Our rules were strengthened to exclude this practice. We had also received comments at hearing that employees did not know how employers had chosen safer medical devices, and that many employees had not been trained to use them. Provisions in the Oregon rules should prevent such situations.

Now employers must establish and maintain a contaminated-sharps-injury log of the following:

- The type and brand of device involved in the incident
- The department or work area where the incident occurred
- A description of how the incident occurred

The other Oregon-initiated rule is 437-002-1035, Oregon Rules for Sharps Injury Log. Federal OSHA’s rule requires a Sharps Injury Log for any employer who falls within the scope of the record-keeping rules; the new 300 Log excluded most medical offices from this requirement. Many comments from the hearings indicated that this was inadequate; therefore, the Oregon-OSHA requirement for a Sharps Injury Log will apply to any employer who must maintain an exposure-control plan.

So, as you can see, the input of our stakeholders is *valuable* to those affected by our rules and *valued* by Oregon OSHA. ■



## ***Small businesses: Download manual for safety-program help***

All businesses must have effective safety-and-health programs. However, the smaller the business, the harder it is to develop a program. If you are struggling to find the time, money, and resources to accomplish this task, OR-OSHA provides a downloadable manual on its Web site that can help you develop an effective and practicable safety-and-health program.

Visit OR-OSHA’s Web site: [www.orosha.org](http://www.orosha.org). Go to “Education,” and then to “Safety and the Small Business Employer (SATSBE) Instructor and Training Manual.”

SATSBE training will be coming to many Oregon cities in 2002. The trainings are free and are held during two lunch-hour sessions to which you may bring a sack lunch. Call Reggie Robb, OR-OSHA Public Education Section, (503) 947-7443, to find a class that suits your needs. ■

# Administrator's Message



Peter De Luca

People send me all kinds of things to read. I try to read them all, even though I am not always successful. Recently, I received a list of the most-often-cited OR-OSHA violations.

In the categories of *Agriculture*, *Construction*, and *All Employers*, the most frequently cited violation was “No safety committee.” I find this interesting.

Safety committees are not required by rule — they are required by state law! When OR-OSHA finds no safety committee, there is only one course of action available to us: A citation must be issued.

Safety committees work! They provide a means for employees and employers to conduct a dialogue about

safety issues. They provide an avenue for hazard identification and accident avoidance. They save lives, limbs, and money. It is difficult to imagine why an employer would not have a safety committee. Those that do not will have higher costs of doing business.

The next items on the list varied from group to group. For *All Industries*, the second most-often-cited violation was “No written hazard communication program.” For *Agriculture*, the second item was “Failure to maintain an unobstructed path or walkway.” For *Construction*, the second item was “No fall protection.”

There was a time when the most-often-cited items were paperwork violations or failure to hang up posters. These were fairly mundane violations. No more. Now we are citing substantive violations that have direct impact on the safety and health of employees. This represents a big shift in our direction. ■

## RESOURCE



The *Oregon Health and Safety Resource* is published quarterly by the Oregon Occupational Safety and Health Division, Department of Consumer & Business Services.

Information requests should be directed to:

(503) 378-3272 (V/TTY)  
or (800) 922-2689

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# **SHARP Alliance helps small employers on the southern Oregon coast**

*By Scott Haviland, OR-OSHA Senior Compliance Officer*

We in the Enforcement Section of OR-OSHA have seen some dramatic changes in how we do business since the last legislative session. House Bill 2830 changed how OR-OSHA schedules routine inspections in high-hazard industries such as logging and construction: Rankings now are based on factors that include accepted disabling workers' compensation claims. The more claims an employer has, the higher the ranking and the better its chances of being scheduled for an inspection.

Those logging employers ranked up to 50 and construction employers ranked up to 500 receive comprehensive inspections that include review of their required records and safety-and-health programs.

In the first year that the provisions of HB 2830 were implemented, many small employers that had never had an OR-OSHA inspection were scheduled. When employers received letters from the agency (a House-bill provision) informing them of their increased likelihood of inspection, many did not know where to turn for help and information.

That's where the SHARP Alliance comes in. The SHARP Alliance is made up of SHARP (Safety and Health Achievement Recognition Program) employers who promote safety and health in their industries and communities throughout Oregon.

Future Forest Company of Myrtle Point, owned by Kerry and Rebecca Clark, is one such SHARP employer. The Clarks come from several generations of Oregon logging families and have many friends and relatives in the industry. Their goal is "to help at least one person from getting hurt or killed in the woods." The Clarks promote safety and health in the workplace whenever and however they can. It may be with friends around their kitchen or coffee tables or at deep-woods worksites that they visit during consultations with employers.

One friend is the owner of a small family-owned-and-operated logging company that had experienced some minor accidents and did not want things to get worse. The company's workers' compensation rates were on the rise and it had received notification that OR-OSHA may perform a scheduled inspection this year.

When I contacted Fred Kremers, the owner of Sandy Creek Logging, to schedule a first-time inspec-



*Rebecca and Kerry Clark with Pete De Luca, left, at the 2001 GOSH Conference, at which they received the Small Employer award.*

tion of the company records, he willingly scheduled a meeting at the office of Future Forest Company. Fred had contacted the Clarks, who had helped him put together a comprehensive safety-and-health program for his logging operations.

During my 14-year career as a compliance officer, I haven't seen many safety-and-health programs as comprehensive and complete as that which Kremers presented. It contained all the requirements of the Forest Activities Division 06 standard and went above and beyond the minimum requirements.

An on-site inspection of an active logging site confirmed that employees knew what was in the written program and what was required of them to help make the workplace safe.

From a compliance officer's perspective, this inspection was refreshing in that there were no citations issued, and the employer was in compliance with the safety-and-health-program requirements. The employer had taken a proactive approach when problems were recognized and asked for help to solve them.

Obviously, workplace culture is changing on Oregon's south coast, thanks to the efforts of SHARP employers such as Future Forest Company and others who share their values. Increased awareness of safety-and-health issues in the workplace by employers and employees leads to fewer injuries and decreased costs for all Oregon employees and employers.

Keep up the good work! ■





## Paul Frith, Portland Field Office – Education & Conferences Section

by Cheryl Mushaney,  
Oregon OSHA Administrative Assistant

As a member of the Education and Conferences Section, working out of the Portland field office, Paul Frith has traveled the state since 1995 training employers and employees on various safety and health topics.

Born and raised in Arkansas, Frith attended the University of Arkansas 1959-1961, then went on to veterinary school. In the summer between completing his undergraduate studies and beginning veterinary school, he met his bride-to-be, Nancy, during a “camp-counseling gig.” Together, they developed a love of flying, and Nancy became the 1965 women’s national collegiate champion in their first airplane, a four-seat Cessna 172 Skyhawk.

Working as the director of the milk- and meat-inspection divisions for the City of Little Rock, Frith’s job evolved, and his interest in public health led him to the position of assistant city health administrator. In 1969, he packed up his wife and young son and moved to California to attend University of California Berkeley and study for his Master’s degree in public health and medical care administration with emphasis on comprehensive health planning.

Alaska had been calling to the Friths, so when their son Stevie was four, Frith loaded up an old Avis rental moving truck he’d bought, tied his motorcycle onto the back, put their jeep in tow behind the truck, and drove “about 6,000” miles to Alaska. They also had a new VW bus camper, in which his wife and his mother shared driving duties and entertained Stevie. In Fairbanks, they traded the truck and the van for their first house, and continued trading up for the duration of their Alaska stay. When pipeline work started in 1973, they owned a ten-plex. The ten-plex sold twice, was defaulted on twice, and the Friths got back it back at a profit. The third sale was successful, however.

Frith worked as the regional health officer for the Alaska Division of Public Health, supervising all public health programs for the northern half of the state, a territory of about 350,000 square miles.

As president, founder, and CEO of Alaska Wend, Inc., Frith developed a two-store Wendy’s franchise in Fairbanks that had annual sales of about two million dollars. While still operating Wendy’s, he was asked by the governor’s office to accept the position of deputy director of the State Division of Insurance to evaluate its operation, a position in which he served for about a year in 1986.

When Frith joined the public sector again in 1987, he selected occupational safety and health. As a health compliance officer for the State of Alaska, he was



*Paul Frith outside of OR-OSHA’s  
Portland office on the Willamette River.*

expected to become cross-trained in a wide range of industries. His compliance-officer experience was very diversified: He traveled from the oil fields of Prudhoe Bay to offshore fish canneries, and he says he had quite an intense experience during the Exxon Valdez oil spill.

Nancy Frith was a professor at the University of Alaska Fairbanks, teaching health and physical education. The couple had a four-seat bush aircraft, a “tail-dragger” called an M4 Maule. In summer, they landed it on floats and wheels, in the winter on skis. Their home in Fairbanks was on the Chena River, which ran through town. On occasion, they would land on the frozen river, taxi to the house, warm up with hot chocolate, then fly on to other adventures.

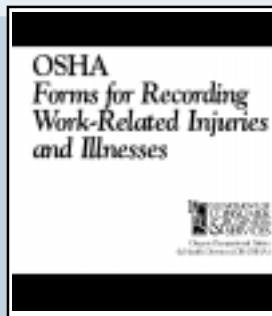
The Frith’s oldest son, Steve, now 33, still lives on the outskirts of Fairbanks and works for the Parks and Recreation Department’s aquatic facility. He’s the “bush man,” arguably the best fisherman in interior Alaska. James, the youngest son, 22, is a senior at UW Seattle majoring in astronomy and physics. The Frith’s middle son, David, died at 17 in March 1993, from a fall, and is greatly missed by his family.

Through the years, Frith has been an avid volunteer who has served on several committees and executive boards, including the Midnight Sun Boy Scout Council, Arctic Association for Retarded Children, and Special Olympics. Until recently, he maintained his veterinary license, moonlighting and helping out friends. Since moving to the Lower 48, Nancy Frith has been a substitute teacher, making her own schedule.

Frith is a fitness, wellness, diet, weight-loss, and weight-control proponent. When he finds someone willing to listen to him, he feels he can convince that person to lose weight with proper diet and exercise.

Someday, the Friths say, they will return to Alaska to fly their own plane again and catch that elusive big fish. ■

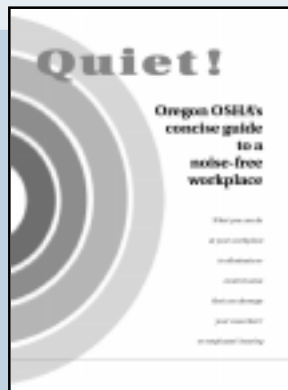
# Publication Spotlight



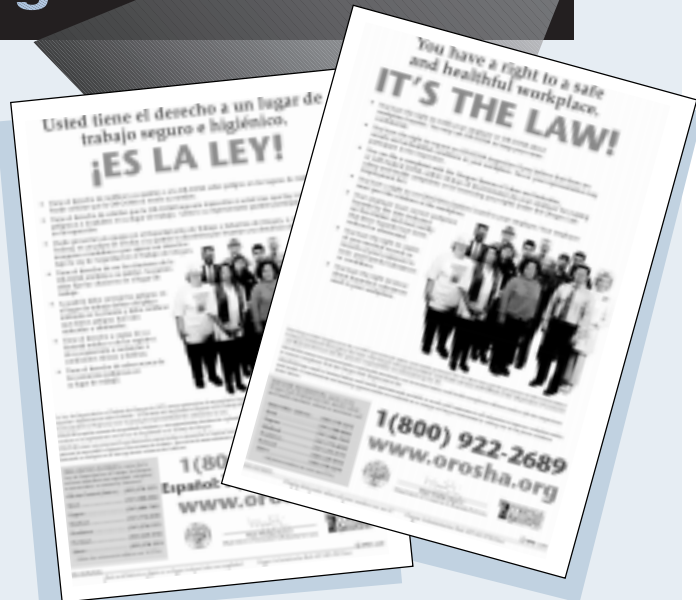
**OSHA 300/300A Record-keeping Packet** — Come January 1, 2002, you'll need to use and post these new occupational injury/illness logs and summaries at your workplaces.

Our new, handy packet of log and summary forms comes with clear instructions for using the forms and is now available in pdf format from our Web site, [www.orosha.org](http://www.orosha.org), or from our Resource Center. To order by phone, please call Brenda, (503) 947-7447.

**Quiet! Oregon OSHA's concise guide to a noise-free workplace** (Publication 440-3349) — Noise-induced hearing loss can creep up on a workplace and the workers in it quite painlessly, but the resultant loss of hearing is painful and usually irreversible. This guide tells how we hear, how to measure sound, how to tell if hearing is damaged, and how to approach noise control in the workplace in practical and effective ways. Find it on our Web site, [www.orosha.org](http://www.orosha.org), or request your copy from the Resource Center, (503) 947-7447.



**Develop and Implement – A Guide to OR-OSHA's Required Programs** (Publication 440-3341) — What safety-and-health programs are required by OR-OSHA? What does it mean to “develop a written program”? What if your business appears to have overlapping “required programs”? This helpful guide takes you through what programs are required in various industries, what the terms associated with “required programs” mean, and just how to go about “developing and implementing.” Find it on our Web site, [www.orosha.org](http://www.orosha.org), or request your copy from the Resource Center, (503) 947-7447.



**“It's the Law”** posters (Publication 440-1507 and 1507S) — For the convenience of employers and employees, this required poster is now available in English or Spanish (1507S). Prior versions were printed English one side, Spanish the other. Although this may be just what you've been waiting for, you're not required to replace your “It's the Law” poster with this new poster. Call the Resource Center, (503) 947-7447, to request your poster.

**OR-OSHA's Rules and Publications Catalog** (Publication 440-1306, 9/01) — This publication contains order forms and lists all OR-OSHA's publications, posters, and other items. You'll want to keep this catalog handy. It replaces both the old Code Order Form (440-1306) and the Safety and Health Publications Order Form (440-1899). Find it on our Web site, [www.orosha.org](http://www.orosha.org), or request your copy from the Resource Center, (503) 947-7447.



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# SAFETY NOTES

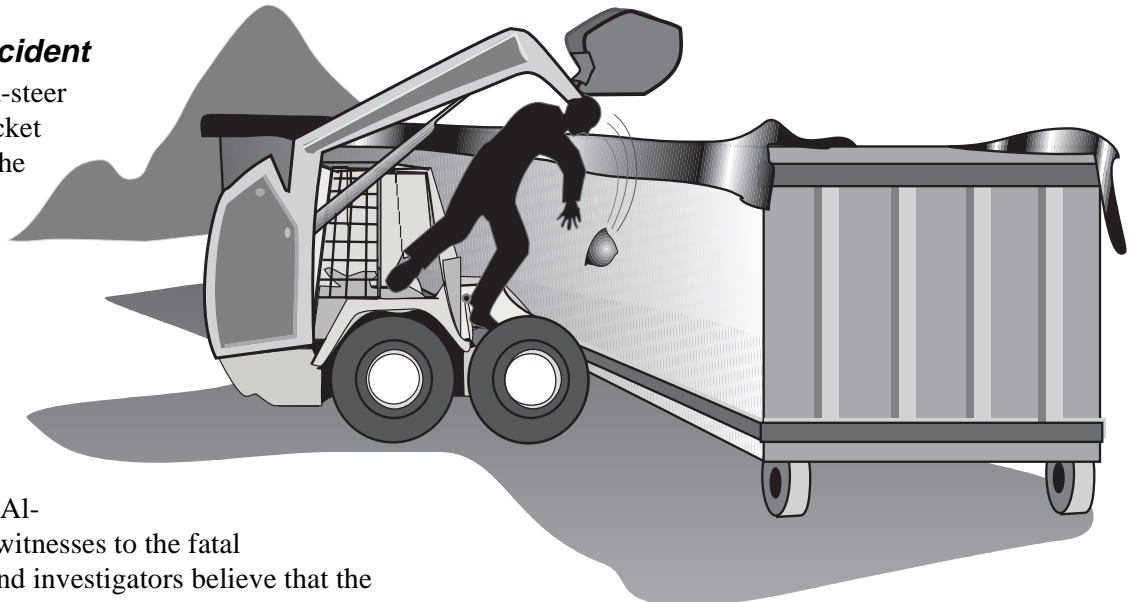
Department of Consumer & Business Services  
Oregon Occupational Safety & Health Division  
Salem, OR 97301-3882

## Fatality Report

Accident type ..... Crushed by vehicle  
Industry ..... Rendering/hauling  
Employee job title ..... Driver/skinner

### Description of accident

The driver of a skid-steer loader with a front bucket (843 Bobcat), was in the process of dumping layers of sawdust and grease residue into a large, outdoor sanitation-company bin. The sanitation company accepted the grease residue on the condition that it was layered with sawdust. Al-



though there were no witnesses to the fatal accident, employees and investigators believe that the driver was engaging in a common practice of loader drivers at the worksite: checking sawdust levels in the bin by leaning out of the loader, which was parked with its bucket raised against the sanitation-company bin, and peering into the bin.

Accident reconstruction indicated that the driver, whom another employee had seen exiting the cab of the loader earlier, had, at some point, turned off the engine with the boom and bucket raised overhead, placed the seat safety bar in the up position, stepped out, and leaned forward to look into the bin.

Investigators believe that the driver may have contacted the left-side foot control, bringing the bucket boom down and pinching his head between the bin and the underside of the pivot point for the boom. The driver was wearing a hardhat at the time of the accident; marks on the hat appeared to match the boom pivot supports.

The other employee working in the area happened to see the victim, who was partially obscured by a piece of plastic that lined and lapped over the bin's edges, apparently pinned against the bin by the loader boom. He rushed to the loader, calling the victim's name, and tried to get into the loader. The victim's leg was blocking his entrance onto the loader, so he went to the other side, climbed in, started the machine, and lifted the bucket off the victim. He checked for pulse and respiration and ran to the office to call 911. EMTs arrived shortly, but the victim was dead.

### Investigation findings

The practice of employees standing under the raised bucket of the loader had not been disallowed by management, although employees had been "warned" not to stand under the bucket. The vehicle involved in the employee death was being operated in an unsafe condition: neither the parking brake nor the manual safety interlock attached to the safety seat bar was working at the time of the accident, and the vehicle was not checked for mechanical safety at the beginning of each work shift. Operators of the loader had not received training and had not read or been shown the operator's manual for the loader.

### Applicable standards

- OAR 437-002-0223(3)(1)
- OAR 437-002-0223(3)(b)
- OAR 437-002-0223(3)(c)
- OAR 437-002-0223(16)(b)
- OAR 437-002-0223(19)(a)

# SAFETY NOTES

Department of Consumer & Business Services  
Oregon Occupational Safety & Health Division  
Salem, OR 97301-3882

## Accident Report

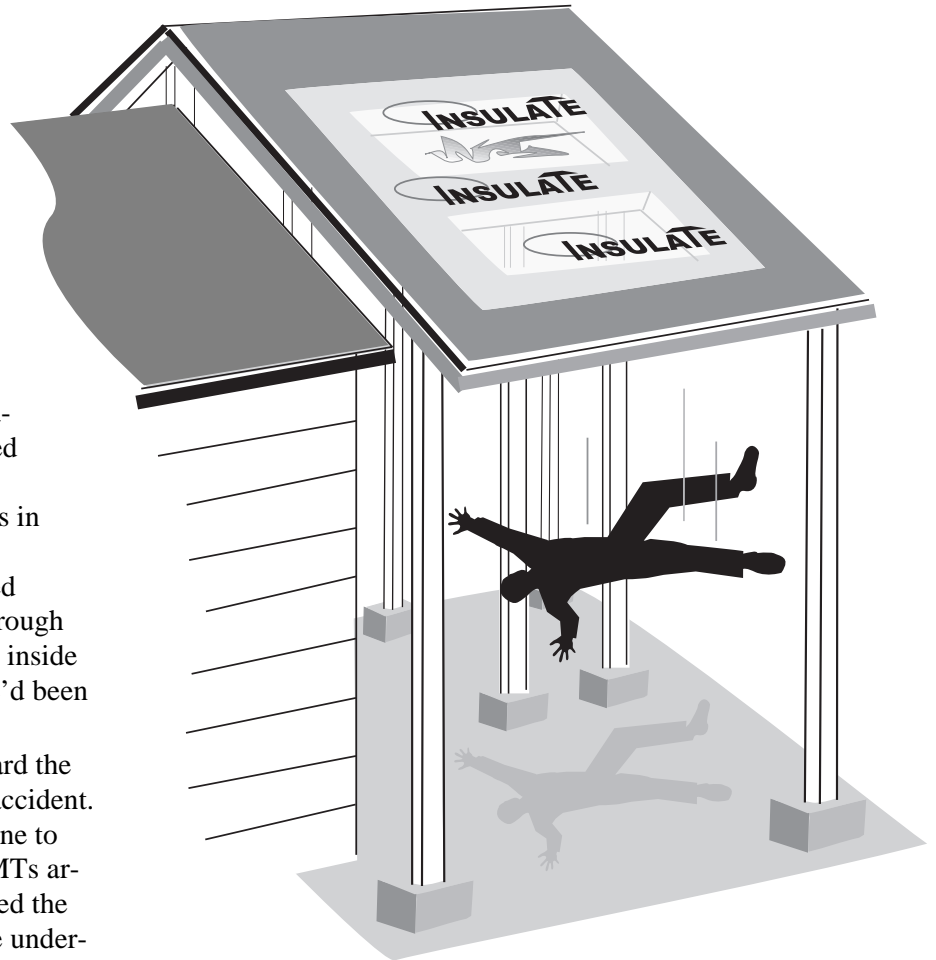
Accident type ..... Fall from structure  
Industry ..... Home construction/roofing  
Employee job title ..... Estimator/roofing company

### Description of accident

On a Friday in June, an estimator arrived at a remodel job to look at a cedar-shake roof and estimate the cost to roof the addition that the construction crew was building. He spoke to the foreman at the site, and was directed to the roof through an open skylight by means of a metal extension ladder.

The estimator went onto the roof with his tape measure. He was not accompanied by construction-crew members. The estimator was unaware that the contractor had used a sheet of thin insulating material to cover three two-foot-by-six-foot skylight openings in the roof of the new addition because it had rained the day before. The estimator stepped onto the thin insulating material and fell through one of the skylights. He landed on his back inside the structure, about 15 feet below where he'd been standing on the roof.

The foreman and two subcontractors heard the estimator fall and rushed to the site of the accident. One of the subcontractors used his cell phone to call emergency medical services. When EMTs arrived about five minutes later, they stabilized the victim and took him to a hospital, where he underwent emergency surgery for spinal injuries.



### Investigation findings

The employer failed to effectively cover the skylight openings on the roof or to provide adequate warning of the hazard.

### Applicable OSHA standards

- CFR 1926.501(4)(i)
- CFR 1926.502(i)(2)
- CFR 1926.502(i)(4)



# SAFETY NOTES

Department of Consumer & Business Services  
Oregon Occupational Safety & Health Division  
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## Accident Report

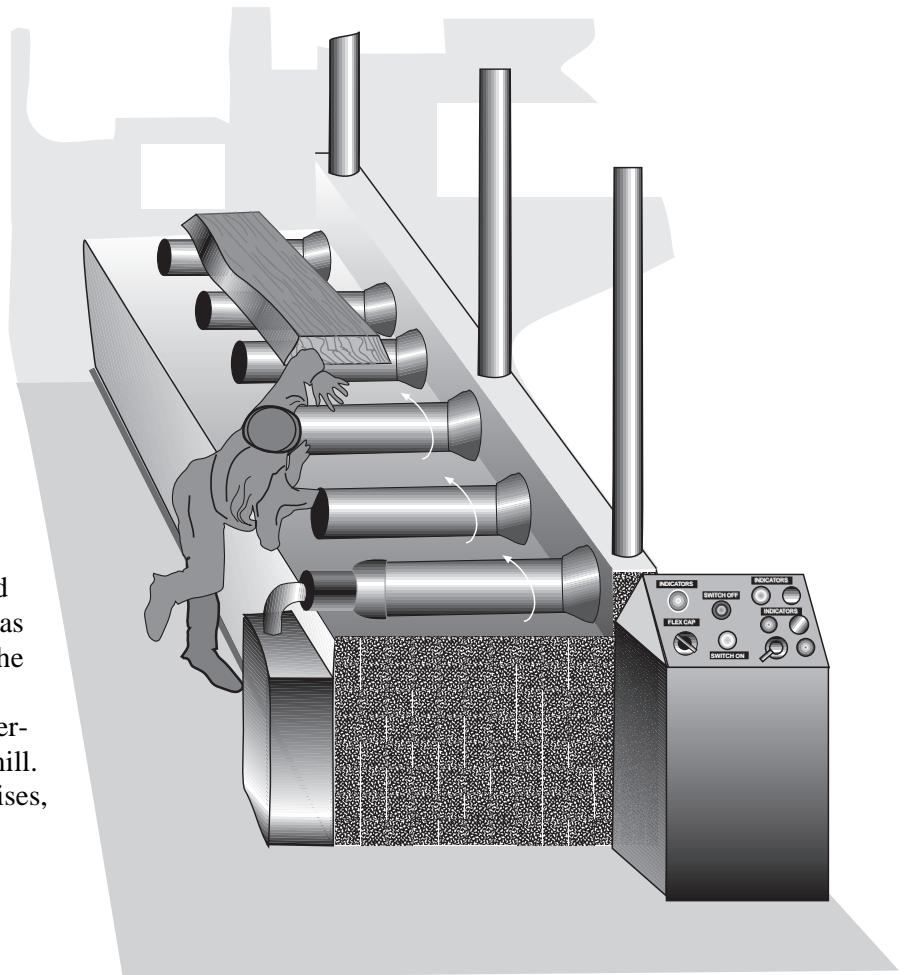
Accident type ..... Caught in or between  
Industry ..... Sawmill  
Employee job title ..... Off-bearer

### Accident description

Early on a workday in a lumber mill, the employee working nearest the headrig, which is the primary saw used on logs entering the mill, was doing his regular job as off-bearer. Headrig off-bearers guide cants (the first slabs cut from raw logs) and unusable portions of logs along live roll-cases to other saws or other locations in the mill.

On this morning, the off-bearer had a cant hung up on the roll-case, and he had walked away from his position near the headrig to straighten the cant. He was wearing an unfastened denim jacket. As he attempted to reach and move the cant on the roll-case, an unguarded roll-case sprocket wheel caught a front edge of the off-bearer's jacket and swiftly pulled him tightly against the roll-case. More of his jacket-front and both sleeves were pulled into the roll-case before the roll-case stopped.

The headrig sawyer, upon moving another log into position to cut, saw that the off-bearer was not in sight, and stepped out of the headrig booth to see what had happened. When he saw the victim pinned to the roll-case, the emergency whistle was sounded. Other employees responded to the scene and used pocketknives to cut the victim's jacket free of the roll-case as emergency personnel were on the way to the mill. The off-bearer sustained serious cuts, bruises, and arm injuries.



### Investigation findings

The roll-case sprocket wheel was not guarded. Neither the mill manager nor the safety committee had considered the unguarded sprocket wheel a hazard to employees, although the mill manager said that the off-bearer would normally be expected to straighten out cants in that area.

### Applicable standards

OAR 437-002-0313(6)(c)

# SAFETY NOTES

Department of Consumer & Business Services  
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Salem, OR 97301-3882

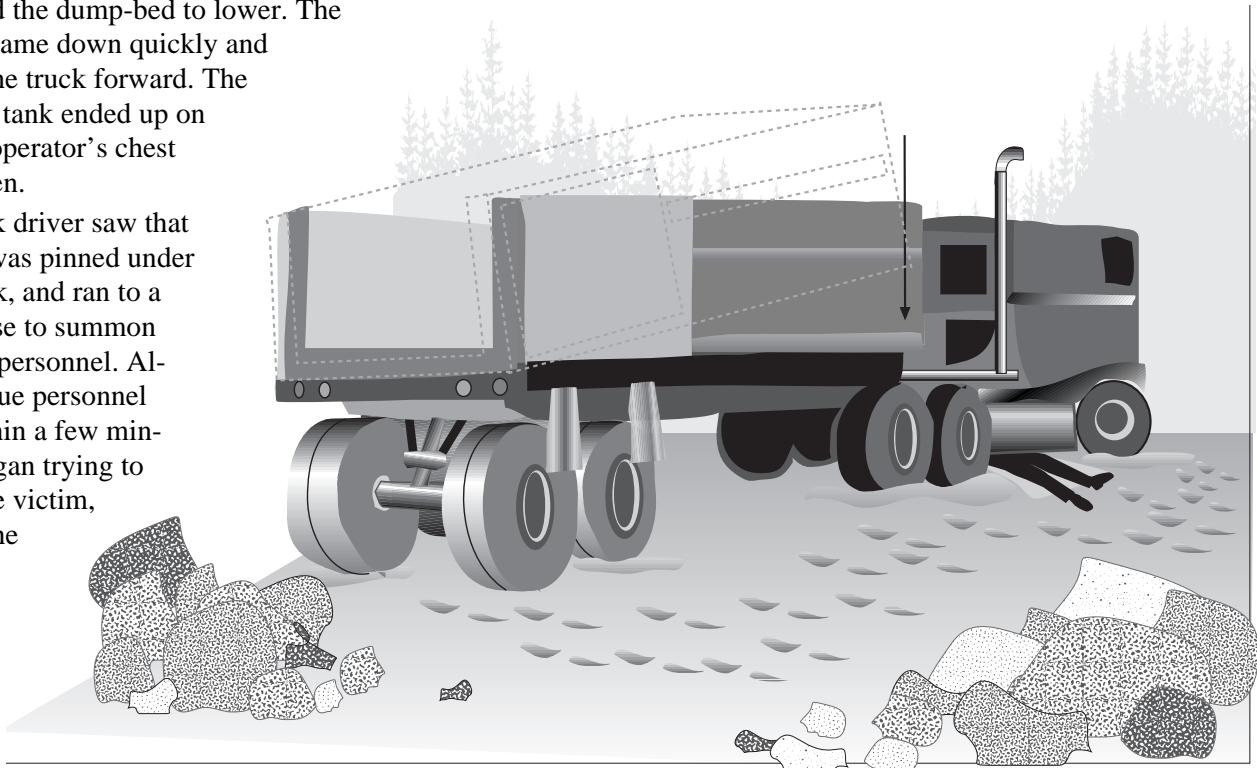
## Fatality Report

Accident type ..... Motor vehicle/pinned by  
Industry ..... Hauling — Rock and dirt  
Employee job title ..... Shovel operator

### Accident description

While moving and positioning boulders for erosion control on a beach-front building site, a shovel operator was attempting to help a truck driver “unstick” the dump-bed of his truck, which was empty and stuck in the raised position. The shovel operator told the driver to pull his truck forward, out of the mud, and he would crawl under the truck to see if he could see what was the matter. The shovel operator went to his pickup to get a piece of cardboard to lie on under the truck. The driver proceeded to pull forward slowly, then stopped and jumped out of the cab. As he moved toward the dump-bed, he saw that the shovel operator had already gone under the truck. The shovel operator pulled on the bound-up cable linkage that allowed the dump-bed to lower. The dump-bed came down quickly and “jumped” the truck forward. The truck’s fuel tank ended up on the shovel operator’s chest and abdomen.

The truck driver saw that the victim was pinned under the fuel tank, and ran to a nearby house to summon emergency personnel. Although rescue personnel arrived within a few minutes and began trying to extricate the victim, he died at the scene.



### Investigation findings

The trucking company had a mechanic on staff who was available to travel to worksites to repair equipment. On the day of the accident, he had not been called to work on the dump-bed, partly because the truck was equipped with a CB radio on which the driver said he could not reach the shop. The driver did not know the victim had already gone under the truck just before the accident. The driver had set the truck/trailer brakes before he got out.

### Applicable standards

No violations found.

**“forklift safety,” from page 1**

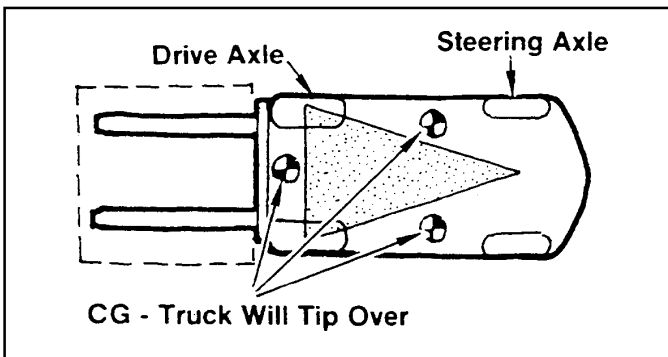
Organizations regularly use their most-experienced operators as trainers. But, be careful! Years of practical experience *can* mean complacency, tricks, and unsafe habits.

There is a new requirement in the revised rule, Division 2, Subdivision N, 29 CFR 1910.178(l)(4)(i) that reads: “Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by paragraph (l)(4)(ii) to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.”

**Retrain with “educating” in mind**

I’ve found that retraining programs often don’t include the affected operator in the retraining. Two examples: If an operator is speeding through areas of the plant where speed is restricted, he or she may be disciplined and required to watch a safety video (which, with all due respect, can be discipline enough). Or — if an operator with no load or a light load drives with the mast raised high, causing the forklift to become unstable, he or she may be warned and told to keep the load low “because OSHA requires it.”

Although accountability and discipline are important, education is at least equally important. Why not ask the first operator what he or she thinks a safe speed should be and why? Have the operator explain the hazards surrounding excessive speeds and pedestrian exposure. Determine why speeds have been excessive, e.g., production pressures, lack of enforcement, lack of training, etc. Allow time to demonstrate to this operator and all others that a safe, controlled speed is as productive as an excessive speed. Include operators when developing new or revised policy. Then ensure consistent enforcement.



*Unstable lift truck*

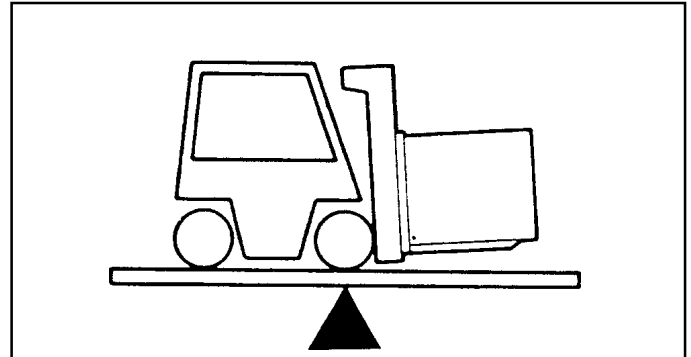
**When thinking “stability,” think grade school**

About the second example: It has always been my opinion that lift truck stability warrants more attention. I’m not implying that pedestrian exposures are not im-

portant — they are. But, the leading cause of death and serious injury involving forklifts are overturns.

I describe forklift stability in four primary elements: fulcrum point, center of gravity, the stability triangle, and load center.

As children, we all played on teeter-totters, which have planks balanced on fulcrums. The fulcrum point on the forklift is the front axle and the load is balanced with the counterweight.

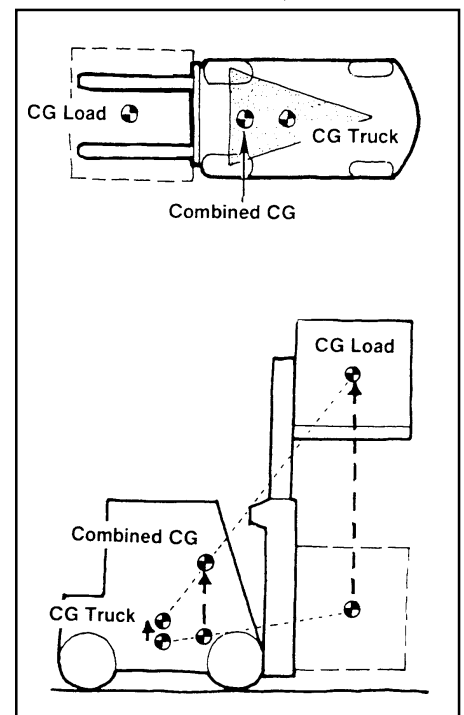


*Fulcrum point*

In addition to balancing both ends of the lift truck, we must also balance in all directions; hence, *center of gravity*. Operators should remember that a *new* center of gravity is created when they’re handling a load — one that combines both the load’s and the truck’s centers of gravity. I relate this principle to riding a tricycle: If I peddle this *tri-*

*angle on wheels* around a corner and shift my center of gravity forward over the narrowest portion, I am likely to turn over. If I shift rearward and place my center of gravity over the widest portion of the tricycle, I am less likely to tip over.

This brings us to the stability triangle, the *tri-*  
*angle on wheels*. Visualize a triangle whose base is at the fulcrum



*Ideal center of gravity*

See “forklift safety,” page 12

*“forklift safety,” from page 11*

point (front axle) and whose apex is at the center of the rear axle (pivot point of a rear-steering axle or the steer wheel on a three-wheel model). The mobile combined center of gravity (imagine this combined center of gravity as a single moving object) must stay within this triangle in order for the lift truck to be stable.

The most stable area while handling a load is close to the base, or fulcrum point. If this combined center of gravity moves forward of the fulcrum point, the truck tends to tip forward (longitudinally). Factors that cause this instability include:

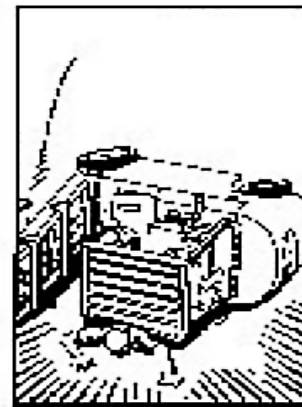
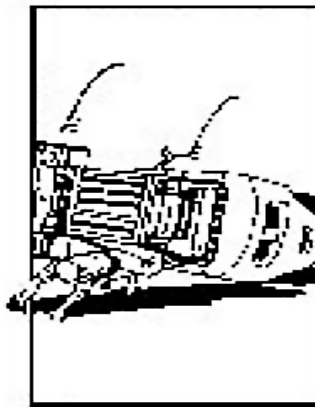
- carrying the load too high
- excessive forward tilt
- operating on a decline
- heavy braking
- inappropriate use of attachments

If the combined center of gravity moves outside of the stability triangle, the truck tends to overturn on its side (laterally). Factors that cause this instability include:

- off-center loads
- unequal tire pressure
- uneven terrain
- quick turns

Finally, if the combined center of gravity moves rearward toward the apex of the stability triangle, it may only take a pothole or a chunk of 2-by-4 to move it outside of the stability triangle and possibly overturn the truck. Factors that can move the combined center of gravity towards the apex include carrying a load too high with a rearward tilt and operating on an incline.

This brings us to using seatbelts: They must be worn when there is a danger of overturning or being thrown from the truck to keep the operator from being ejected and pinned or propelled into the mast structure. If your truck is not equipped with a seatbelt, call your sales representative and get an approved retrofit kit. (If you're involved in a lateral overturn, it is also recommended you brace yourself by pushing forward and leaning away from the impact.)



*If the combined center of gravity moves outside of the stability triangle, the truck tends to overturn on its side. Seatbelts must be worn when there is a danger of overturning or being thrown from the truck.*

Finally, *load center* is the center of the load (measured forward from the heel of the forks). All forklifts have a rated capacity, and most are rated at a 24-inch load center (center of the standard 48-inch long forks). The further you move from load center, the further your rated capacity drops.

A general rule of thumb: For every inch you move out from load center, the nominal capacity of your unaltered truck can drop a few hundred pounds. This rule does not apply to lift trucks with any type of front-end attachments, including fork extensions.

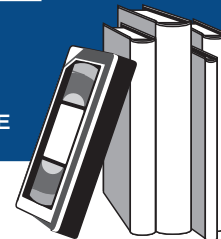
I cannot emphasize enough the importance of knowing how front-end attachments, including fork extensions, affect (reduce) the capacity of your truck. Also, keep in mind that modifications or additions that affect capacity or safe operation must be approved by the manufacturer in writing. If you're looking to calculate estimated lost capacity when using front-end attachments other than the manufacturer's, please consult material-handling trade publications or check with OR-OSHA's Public Education Section. ■

### ***For more information***

OR-OSHA offers a four-hour workshop on powered industrial truck safety throughout Oregon. Call (888) 292-5247, option 2 or see our Web site, [www.orosha.org](http://www.orosha.org), and click on the Education link. The workbook can also be downloaded from our site!

Of course, there are numerous vendors, manufacturer representatives, and other resources available to you. Also, your workers' compensation carrier may be able to help.





## A message of condolence

By Don Harris, AV Librarian for Oregon OSHA

We picked topics out of a hat. I was much younger then, and I was in a group whose members were assigned various philosophy topics on which to speak. Young as I was, when I drew my topic, I looked at it, and slipped it into my pocket, thinking, “This should be a snap.”

I went to my favorite library and cheerfully announced: “I’m giving a talk on SUFFERING!”

The librarian was an old friend of mine, so I naturally expected words of admiration and encouragement. What I got was a low “Ohhh . . .,” followed by a murmured, “Good luck.” He walked away, shaking his head. Worst of all, he glanced back at me occasionally, and shook his head even more.

Undaunted, I went to the philosophy section and pulled out various books. I couldn’t see what the big deal was; after all, just look at how much had been written on the subject! Then, I started to read.

This just couldn’t be right. I looked through book after book. I couldn’t believe it. I’d expected a definition of “suffering,” followed by a quick explanation of why people suffer. But, scholars all agreed: We don’t know why. Suffering is a mystery.

I don’t know about you, but I don’t like mysteries that don’t come in paper-back and feature happy endings. It’s human nature to want to figure things out, to have a ready answer for every situation. In the face of unexpected tragedy, it’s human nature to ask *Why?*, *Why did this*

*happen?*, and especially, *Why me?*

These questions take on an urgent poignancy during the holiday season. Following the events of September 11, many people across our nation are suddenly and inexplicably left alone. In our own state, Oregonians killed on the job are no longer here to celebrate with their families. Across our state and our nation, people are asking “Why?”

Words fall short, but our hearts go out to all those who have suffered pain and loss during this past year. We wish we could do more.

Oregon OSHA exists because Oregonians are determined to respond positively to the pain and suffering caused by workplace illnesses and injuries. But, even our best efforts are limited.

*How* have workers been hurt in the past? *How* can we avoid workers being hurt in the future? While standing in solidarity with our fellow human beings, the answer to *why* good people suffer must be left for each person to answer in the quiet of his or her own heart.

Maybe that question isn’t as important as it seems. We could go on asking *Why?* until we become tragic figures ourselves. After we’ve determined *how* a tragedy happened, and how to avoid a future occurrence, isn’t it more important to ask “What do we do now?” It’s not a question of not caring or “getting past it.” It’s a question of being able to cope with what is painful and tragic, of using our most bitter experiences to build a better world for ourselves and others.

It’s not easy. But the people of Oregon and of our nation have never been stopped just because something isn’t easy.

Many of the training resources available to you through Oregon OSHA demonstrate this kind of heroism. Names that you’ve seen in our safety videos, such as Kevin Bailey (“The Kevin Bailey Story” — Bailey’s accident with a tractor’s power take-off) and Randy Fellhoelter (“I Felt Comfortable” — his electrocution) come to mind. These individuals suffered great personal injury at work, but have made the most of their unfortunate experiences by helping prevent similar injuries.

Others appear anonymously in our safety videos: people in wheelchairs, people who are permanently bedridden — working to help others. Such individuals have been able to bring some meaning into otherwise (apparently) meaningless tragedies, and their good example is worth more than any amount of lecture.

Speaking of lecture, I’m afraid my talk on suffering all those years ago wasn’t very good. I must have said *something*, but my only clear memory is of standing in front of the group saying “Uh . . .”

Suffering turned out to be something I couldn’t understand or explain. Too bad I didn’t have the sense to admit it.

I’m admitting it now. With all of Oregon OSHA, I offer sincere condolences to those who are suffering during this holiday season. ■

Reserve a copy of the **2001 AV Catalog**. Call (503) 947-7453, or send e-mail to [don.j.harris@state.or.us](mailto:don.j.harris@state.or.us).  
You can view or download the current catalog on the Web: [www.orosha.org](http://www.orosha.org).

# Voluntary Protection Program undergoes changes

Oregon-OSHA's Voluntary Protection Program was updated last July, when Program Directive A-241 instituted some changes that made VPP criteria conform more closely to OR-OSHA's voluntary Safety and Health Program Management Guidelines.

The VPP supports, emphasizes the importance of, and recognizes excellence in employer-provided, generally site-specific occupational safety-and-health programs with wide employee participation.

The highlights of the OR-OSHA VPP changes are as follows:

- Addition of the Demonstration Program to Star and Merit programs, which recognizes sites that have

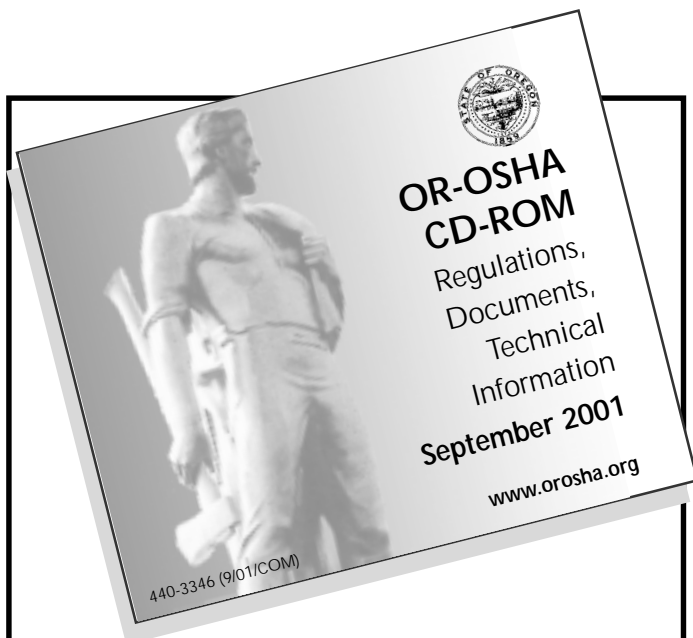
achieved Star-quality safety-and-health programs with approaches that differ from current Star requirements.

- The position of "VPP manager" has been replaced with the position of "VPP coordinator."
- VPP eligibility has been extended to resident contractors at participating VPP sites.
- The minimum hours for an "applicable contractor" have been raised from 500 to 1,000 hours worked on site in a calendar quarter, and VPP sites are expected to encourage subcontractors to develop and operate effective safety-and-health programs.
- At unionized sites, all collective-bargaining representatives must concur in VPP participation (previously, such concurrence was required only at sites where a "significant portion" of employees worked within a collective bargaining unit).
- To be eligible, a site must not have open investigation of pending or open contested citations or notice under appeal at application (previously only willful violation during the past three years disqualified a site).
- Qualifying smaller worksites may use an alternative method of calculating injury and illness to help them qualify for the Star Program (e.g., using the best three out of the most-recent four years of injury-and-illness experience).
- The Hazard Prevention and Control section of the VPP qualifications has been revised to encourage a systematic and hierarchical approach to controlling hazards.

OR-OSHA's Central Office can provide an Oregon Voluntary Protection Program Guidelines and Application Packet. Address: Salem Central Office, 350 Winter St., NE, Rm. 430, Salem, OR 97301-3882. You may request a packet by phone, (503) 378-3272 or (toll-free) (800) 922-2689, or Fax, (503) 378-5729.

*Mark E. Hurliman, VPP coordinator, may be contacted by e-mail, [mark.e.hurliman@state.or.us](mailto:mark.e.hurliman@state.or.us), for more information about VPP.*

*You can also get information on the VPP from the U.S. Department of Labor, Occupational Safety and Health Administration (federal OSHA) or the Voluntary Protection Program Participants' Association (VPPPA), which is a nonprofit charitable organization of VPP participants dedicated to assisting employers to achieve the VPP level. ■*



## About the OR-OSHA CD-ROM

All the information you need about Oregon OSHA is right here. The best of OR-OSHA's Web site is on this disk. Since it's all here, that means you can use the information anyplace there's a computer – even at job sites and buildings with no Internet access.

## Get the latest

For the most up-to-date information on OR-OSHA events, publications, regulations, legislation and technical standards, visit the OR-OSHA Web site:

**[www.orosha.org](http://www.orosha.org)**

## Questions?

Call (503) 378-3272

or toll free (800) 922-2689

Spanish-language phone: 1(800) 843-8086

*Mark your calendar ...*



# CASCADE

**Safety, Health & Environmental Conference**

Hilton Eugene & Conference Center, Eugene

March 12-13, 2002

*Oregon OSHA and ASSE Cascade Chapter, offer workshops and classes in the fields of safety, industrial hygiene, environmental safety and health, and workers' compensation.*

For more information or to register  
call toll-free (888) 292-5247 or in Salem (503) 378-3272 (V/TTY)  
or e-mail [Oregon.conferences@state.or.us](mailto:Oregon.conferences@state.or.us)

## RESOURCE

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# Questions?

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

## Portland

1750 N.W. Naito Parkway, Ste. 112,  
Portland, OR 97209-2533  
(503) 229-5910  
Consultations:  
(503) 229-6193

## Eugene

1140 Willagillespie, Ste. 42  
Eugene, OR 97401-2101  
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(541) 686-7913

## Pendleton

721 SE Third St., Ste. 306  
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1840 Barnett Rd., Ste. D  
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1225 Ferry St. SE U110  
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(503) 378-3274  
Consultations:  
(503) 373-7819

## Bend

Red Oaks Square  
1230 NE Third St.,  
Ste. A-115  
Bend, OR 97701-4374  
(541) 388-6066  
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(541) 388-6068

## Salem Central

350 Winter St. NE, Rm. 430  
Salem, OR 97301-3882  
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Fax: (503) 947-7461

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