

# Invisible threat

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19<sup>th</sup> annual

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## RESOURCE

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# Administrator's message: Comparing Penalty Strategies

By Michael Wood

**O**ne issue that has been in the news nationally is the question of effective penalties for workplace health and safety inspections. And it's an issue of particular interest here in Oregon, where we have long issued penalties well below the national average.

In Federal Fiscal Year 2008, California (one of the few states with significantly different statutory guidance) issued an average "first instance serious" penalty of \$4,890. The second highest average, Kentucky, is considerably lower at \$1,652. The national average is \$921 (federal OSHA states average \$960 and state plans average \$872). We here in Oregon averaged \$347, which edged out South Carolina's average of \$331 to move into 49th place on the list after many years with the lowest average penalties in the nation (the shift was mostly the result of a decrease in South Carolina's penalties, rather than an increase in Oregon's).

We need to avoid simplistic conclusions that "higher penalties work better," but it's worth taking a look at how we might be able to use our existing penalty authority more effectively to get the results we're after. We must never lose sight of the purpose of penalties – they create an incentive for employers to reduce workplace risks by complying with the rules we have adopted. But we probably can target those penalties more effectively than we do.

Looking at penalty policies around the nation, there are several significant differences. In some cases, the difference is clearly a strength of the Oregon approach. In others, it appears to be a limitation. And in still others, it may simply represent a different strategy for a different situation. But, in any case, it's worth knowing – and thinking about.

**We give a smaller reduction based on employer size.** In Oregon, the smallest employer will pay between 70 percent and 90 percent of the penalty paid by the largest employer. In other

states, the smallest employer would pay between 5 percent and 40 percent.

**We do not give a break to employers simply because they have not previously been inspected.** Most jurisdictions give a 10 percent reduction for a good violation "history"; an employer who has never been inspected will get that reduction.

**We give a much larger break based on injury/illness history than other jurisdictions.** Most jurisdictions do not consider history of injuries and illnesses.

Those that do give a 10 percent reduction for particularly good history; we give 35 percent for "better than average."

**We give a much larger break based on immediate correction.** Most jurisdictions give a break for immediate action to correct a violation, although several consider it as one factor among many in assessing the "good faith" efforts. When "quick fix" penalty reductions are used, other jurisdictions give a 10 percent break. We offer 30 percent.

**We do not consider "good faith" efforts before the inspection.** Other jurisdictions focus on what the employer did before the inspection. We do not assess good faith, either before or during the inspection, except for immediate correction.

**We distinguish between violations that create a risk of death and those that create only a risk of severe permanent disability.** Other jurisdictions typically rate severity of serious violations on three levels, the highest of which reflects the risk of death or severe permanent disability. We distinguish between "death" and "non-death" violations.



Michael Wood, Administrator

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# Invisible threat

## Understanding the signs of carbon monoxide poisoning

By Melanie Mesaros

**O**n a chilly day in November 2008, Mike Tillery and his brother reported to work at a warehouse in Wallowa. They had no idea they would later end up spending four days in the hospital for carbon monoxide poisoning.

"I had the worst headache in the world," said Tillery. "I kind of blew it off as being hung over, even though I didn't drink the night before. That's what it felt like."

It started when the pair began their routine at a wood products company that produced bundled kindling. The warehouse space to stack pallets was filling up so a supervisor asked them to stack the wood higher. Tillery, an experienced forklift operator, was running the propane-powered forklift for several hours to stack the pallets but the warehouse door was kept closed to keep out the cold.

By lunchtime, Tillery and four of his co-workers, including his brother, were all feeling sick — a mix of dizziness and intense headaches.

"I went home and ate lunch and walked into the building and instantly felt weak," he said. "I was light-headed. I didn't feel like I knew where I was."

Tillery tried to shake off the sick feeling, but after 15 minutes of work, he had enough.



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**"I went home and ate lunch and walked into the building and instantly felt weak. I was light-headed. I didn't feel like I knew where I was."**

**— Mike Tillery**

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"I couldn't do it any more," said Tillery. "I had to step back and a supervisor said, 'What's going on?' I didn't know but something wasn't right."

The Tillery brothers stopped working and went outside to get some air. A short time later, they decided they were going home, as were the three others who were also feeling sick. A secretary working in a different part of the business overheard the discussion and wondered if carbon monoxide caused their sickness.



An investigation photo of the warehouse in Wallowa.

Once Tillery got home, he laid down, intent on a nap. Just before he drifted off to sleep, his brother had received a message from a co-worker who went to the doctor instead of going home. The message said they all needed to get to the hospital right away.

"I didn't really understand you could get carbon monoxide poisoning this way," said Tillery. "I knew you could get it from diesel, but not propane."

Oregon OSHA health inspector Pendra Surette investigated the incident and said there's a misconception about the hazards of using propane-powered forklifts because they "burn" cleaner than diesel.

"It's the 'if you don't see it, it must be OK' mentality," Surette said.

Surette said it can be any type of propane-powered engine – heaters or buffers – that pose the same risks. She hopes employers understand the importance of training employees on how to recognize the symptoms of carbon monoxide.

"It took an individual (secretary) in a separate building to recognize it because of a previous experience," Surette said.

The company was cited for \$6,250 for training deficiencies and failing to report the incident to Oregon OSHA within eight hours.

Tillery's exposure level was near lethal and he may have been saved by the few trips he took outside throughout the morning.

"The doctors said we were extremely lucky," he said. "I was more concerned about making a job for us that day and losing a day's pay. I just didn't put two and two together about the forklift." ■



Tillery, sitting at the wheel of the forklift during the investigation, is now feeling much better and has been working on other outdoor construction projects.



# Carbon monoxide – how it harms you

By Ellis Brasch

**C**arbon monoxide's reputation as a silent killer is well known in the construction industry. In Oregon, there have been five construction-related accepted disabling claims for carbon monoxide poisoning between 1999 and 2008. Most involved employees who were working with gasoline-powered tools in poorly ventilated areas. Yet, each year, more than 400 Americans die from unintentional carbon monoxide poisoning, more than 20,000 visit emergency rooms, and more than 4,000 are hospitalized. Many victims were probably not even aware of what poisoned them.

## Where does it come from?

Carbon monoxide is produced when a carbon-based substance doesn't burn completely. Gasoline, natural gas, oil, propane, coal, and wood all produce carbon monoxide. Small gas-powered engines and tools are typical sources of carbon monoxide in the construction industry.

## What does it do to you?

Carbon monoxide robs your blood of oxygen when it enters your lungs. That means less oxygen for your heart, brain, and other vital organs. Headache, fatigue, dizziness, and drowsiness are warning signs. Large amounts of carbon monoxide can overcome you without warning, causing you to lose consciousness and suffocate.

## When does it become dangerous?

The answer depends on a number of factors, including the concentration of carbon monoxide in the air, how long you're exposed, and your exertion level. Oregon OSHA doesn't allow a worker to be exposed to more than 50 parts per million averaged over an eight-hour time period (carbon monoxide is measured in parts per million or "ppm").

Other safety and health organizations, however, have established guidelines at lower exposure levels. For example, the American Conference of Governmental Industrial Hygienists (ACGIH) has assigned carbon monoxide a threshold limit value or "TLV" of 25 ppm for a normal eight-hour workday. At higher exposures, the National Institute for Occupational Safety and Health (NIOSH) warns that carbon monoxide levels above 1,200 ppm could cause death or irreversible health effects within 30 minutes – known as "immediately dangerous to life and health."



### What are common hazards for construction workers?

- **Small gas engines and tools.** Too many workers are poisoned because they use small gasoline-powered engines and tools in poorly ventilated areas – even places that many would consider well ventilated, such as parking garages.
- **Confined spaces.** Any worker who enters a confined space needs to be aware of the potential for atmospheric hazards – existing hazards and hazards produced during work. All manholes should be considered confined spaces and appropriate air monitoring should be done before and during entry.



### Recommendations for prevention

- **Training.** Educate workers about the sources of carbon monoxide poisoning, its symptoms, and how to control exposure.
- **Maintenance.** Keep internal combustion equipment in good operating condition.
- **Ventilation.** Use natural or mechanical ventilation when possible to keep carbon monoxide levels below the permissible exposure limit.
- **Working procedures.** Have a procedure to ensure the safety of those who work alone indoors with internal combustion equipment.
- **Monitoring.** Test air regularly in confined spaces and other areas where carbon monoxide may be present.





## Accident Report

Accident type | Electrical shock/burn

Industry | Construction

Employee job title | Construction laborer



A subcontractor with four employees was working on both interior and exterior projects at a three-story apartment complex. One of the jobs was to install temporary structural supports to replace rotten wood, which would later be replaced by permanent steel tubing. Porch overhangs were also being replaced on the third-story walkways.

An aerial lift, rented by the general contractor, was to be used for work in an area right beside a 7,200-voltage line. The distance between the building and line was estimated to be six feet. The aerial-lift platform was eight feet by four feet. The victim and another worker (assigned as a spotter) said the lift had to be turned just right to clear the live electrical lines. The spotter would ride in the lift to watch the lines and for alley traffic, while the operator situated the basket to clear the lines. Interviews also indicated the employees had problems with the lift functioning properly.

The foreman stated he saw the victim and spotter go up in the lift with lumber they were going to cut for the third-story porch overhang. He told the pair to come back down to make the cut. After they came down, the victim said he went back up alone to take a measurement.





The distance between the apartment complex and the high-voltage wires was estimated to be six feet. The aerial platform was eight feet by four feet.

Alone in the basket, the victim's shoulder came in contact with the high-voltage line. Witnesses said after the contact was made, sparks flew in all directions and the victim went into convulsions, falling to the floor of the lift. When the employer and crew realized the extent of his injuries (burns to his back and shoulder), the employer decided to load the victim in the back of his pick-up truck to transport him to the hospital. The victim survived, but had severe burns from the electrical shock.

## Applicable standards:

### General contractor

**001-0760(1)(b)(B):** The employer had not taken all reasonable means to require employees to conduct their work in compliance with all applicable safety and health rules.

### Subcontractor

**437-003-0047(2):** Employees were allowed to enter and perform functions of activity within the restricted space surrounding an overhead high-voltage line.

**1926.454(a):** The employer did not have each employee who performed work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards.

**437-001-0760(7)(a):** The employer did not replace or repair or remedy promptly defective equipment or unsafe condition found.

## Construction Advisory Committee tackles compressed air hazard

As compressed air becomes more common on construction sites, it also introduces new hazards. The photos shown here, shared with Oregon OSHA by a member of the Construction Advisory Committee, illustrate the failure of an air compressor. The owner hadn't kept moisture from accumulating in the vessel, and ultimately it failed, along one of the vessel's welded seams. Water will condense from the air and collect in the tank. If not drained periodically, this can happen. The tank also has a hydro test interval, beyond which it shouldn't be used unless a hydro test is performed by a competent person.

Compressed air is used for a variety of tasks, from attaching material with nail and staple guns to breaking up material with jack hammers or cleaning off surfaces. Oregon OSHA rules do not permit compressed air to be used for cleaning purposes, except when reduced to less than 30 pounds per square inch (psi) and then only with effective chip guarding and personal protection equipment (PPE).

### Here are a few of the other risks associated with compressed air:

- **Flying particles:** Hazards from dust and flying particles are created when compressed air is used for cleaning. Some Oregon OSHA rules, such as the lead standard, prohibit the use of compressed air to clean floors or other surfaces.
- **Air pressure:** Compressed air at pressure as low as 20 psi can damage eyes, eardrums, or skin. Air that penetrates the skin through an opening can cause severe injuries or even death.
- **Slip or Trip Hazards:** On construction sites, there can be numerous air hose and extension cords. This can cause slip and trip hazards, especially on roofs, stairwells, and doorways.

**A few rules to remember:** Never use compressed air to clean yourself or your clothes and never point an air nozzle at any part of your body or at anyone else. Also, inspect all air hoses and connections to be sure they are in good condition and properly connected before use. Always wear eye protection and other appropriate PPE as needed.

**For more information about compressed air, go to Oregon OSHA's Web site:**

[http://www.cbs.state.or.us/external/osha/subjects/compressed\\_air\\_and\\_gases.html](http://www.cbs.state.or.us/external/osha/subjects/compressed_air_and_gases.html).

(Note: Article submitted by David Davidson, Home Builders Association of Marion and Polk Counties)



These pictures illustrate the failure of an air compressor



Damage to wall near compressor



Cover guard off of compressor



## Fall protection tops Oregon OSHA violations list

For the fourth year in a row, fall protection remains Oregon OSHA's No. 1 violation. In 2008, the fall protection rule was cited 402 times, with the majority of those violations classified as serious.

Rounding out the top three violations are failure to develop a written hazard communication program and failure to assure all safety committee functions. Others making the top 10 include hazard assessment, machine guarding, and electrical hazards.



Oregon OSHA Administrator Michael Wood said these are very familiar violations and are fundamental issues for any workplace health and safety professional.

“What is troubling, if not surprising, is how little this list changes from year to year,” said Wood. “In spite of all the education, all the enforcement, and all the reported fall injuries over the years, we continue to routinely find workers exposed to serious injury and even death from falls. That has to change.”

For the complete list of top violations and to view reports from past years, go to <http://www4.cbs.state.or.us/ex/imd/external/reports/index.cfm?fuseaction=dir&ItemID=2005>.

## Oregon OSHA's Resource newsletter wins 2009 PRSA award

Oregon OSHA's Resource newsletter was honored with a “2009 Merit Award” by the Portland chapter of the Public Relations Society of America. Resource was the only winner in the newsletter category. Judges commented on the publication's excellent quality and growing readership.



### Congratulations to these new VPP companies:

- Roseburg Forest Products, Ply 6, Coquille
- United States Gypsum Company, Rainer plant, Rainer

## Ask Technical

**Q:** If employees contract a flu, such as H1N1, do I need to record it on the 300 log?

**A:** Yes. Although the rules for recordkeeping specifically exempt the common cold and seasonal flu, the 2009 H1N1 influenza is not considered seasonal flu. Employers need to record a case if it is a confirmed case, is work-related and meets the other recordability criteria.



### Administrator's message — continued

We do not distinguish between violations that create a risk of severe permanent disability and serious violations that create a risk of temporary disability (such as a broken bone). Our system distinguishes between “death” and “non-death” violations, but does not distinguish between “non-death” violations based on their relative severity.

It's not clear what these differences mean, and we obviously are not setting out to simply mimic other states and their approach to penalties. But each of these areas of difference can at least provide a starting point for further discussion, and for a conscious decision about how we can best use our penalties to encourage employer compliance – and to reduce the risk of injury, illness, and death in Oregon workplaces. ■

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# Going the distance

Meet a leading Oregon health and safety professional



**Company:** Goodwill Industries of the Columbia Willamette

**Health and Safety Professional:** Rebecca Rogie, Occupational Safety and Health Specialist

**Workforce:** 1,910 employees in 36 retail stores, four outlet/transportation hubs, and 65 attended donation centers

**Common Hazards:** Strains due to lifting bulky objects, materials handling, ergonomics, and trip hazards

## What is your background and safety philosophy?

In the early 1990s, I worked for a lumber manufacturing plant as a shipping/receiving clerk, while taking accounting classes at Mt. Hood Community College. I had worked there a year when the safety coordinator position came available. I had no background in safety, but I liked the idea of working with the crew to gain a better perspective on daily safety challenges. I formed a safety committee and started taking Oregon OSHA classes on a variety of subjects — safety committees, confined space, accident investigation, etc. After a year of taking the Oregon OSHA classes, I changed my major to environmental safety and science. I really found my niche and I was very passionate about safety. Later, I received a bachelor's degree in business management from the University of Phoenix.

In 2002, I came to the Loss Control Department at Goodwill Industries of the Columbia Willamette (GICW) to oversee the organization's safety and health programs and manage the workers' compensation claims. I was new to retail, but not new to safety and health and identifying workplace hazards. I was attracted by the strong leadership commitment to safety by top-level management, as well as the size of the organization.



Rogie looks on as Chuck Miller, a safety committee member, tests a donated TV.

At that time, GICW had 26 retail facilities, four outlet/transportation hubs (the same as today), and two safety committees, with approximately 800 employees. The common injury was strains due to material handling and lifting. My main focus was training on proper body mechanics and proper use of lifting equipment. With so many locations, I also focused my attention on the safety committees and how they could train new hires on safety procedures and identify job-specific hazards for each position.



Strains from lifting and reaching are a common hazard for Goodwill employees such as Rochell Marpe, who sorts through dozens of household wares each day.

Each location had (and still has) two safety reps that I meet with monthly. We discussed accident analysis, near misses, hazard assessments, and recommendations made by each location. They conducted monthly inspections and drills at each location to identify potential workplace hazards. At the end of each year, we worked on our trend analysis project, where we set new goals and an action plan for the upcoming year.

Today, we have seven safety committees, 10 new stores with a growing number of donation centers that cover 12 counties in Oregon and southwest Washington. I believe training is key and we continue our focus on proper lifting practices, ergonomics, and proper use of equipment. This approach has proven successful by reducing occupational injuries and illnesses by 30 percent a year. I have seen some amazing growth in my eight-year career with Goodwill Industries, and I can proudly say safety remains our No. 1 priority. Without that commitment and support from my safety committees and management staff, we would have never been able to create the strong safety culture we have today.



**Talk about what safety issues you deal with at Goodwill Industries.**

We have to prepare workers for everything since we never know what items will be donated. We could receive a baby grand piano or a beautiful crystal vase. We focus on training safe lifting practices, using proper body mechanics or the buddy system, and, whenever possible, using mechanical lifting devices such as hand trucks, pallet jacks, and furniture carts to move large or bulky items.

**Do you have examples of any current projects with unique safety challenges?**

Having an organization this size with multiple sites has its challenges. I spend more than 50 percent of my time in the field conducting site inspections, training, and working with the safety committees to identify hazards. I visit each site at least once a quarter. The safety committees have been working on obtaining Safety and Health Achievement Recognition Program (SHARP) certification at each location for some time. In 2008, four of our 36 retail stores earned first-year SHARP certification. We plan to continue the success of the SHARP program by entering into a partnership agreement and will be adding new stores each year.

**The holidays must be a busy time at Goodwill. Does that present any issues?**

Holidays are a busy time, especially Halloween, which is our biggest holiday of the year. Employees are moving very quickly trying to stay on top of demands to get the holiday items on the sales floor. At the end of the year, we see a spike in daily donations at the stores because people are trying to get that last-minute tax deduction. This presents challenges for the retail stores accepting and sorting large amounts of donations all at one time. We tell our employees not to take any shortcuts, no matter what the challenges are. This is when teamwork truly is an important part of our safety culture.

**Has the tight economy had any impact on your safety program?**

Not at all. Safety has always been treated as a No. 1 objective for doing business.



Danielle Kimes, a student worker from DeLaSalle North Catholic High School, arranges a jewelry display at the southeast Portland Goodwill Superstore.



Goodwill employee Zachary Churchill moves a stack of totes with a hand truck.

## What advice do you have for other safety managers hoping to make a difference?

Safety is all about attitude. If safety is your passion, let others see you truly want to make a difference and they will follow your lead. Try new ways to get your employees excited and involved in safety. Reward employees for reporting near misses and hazards in the workplace. Encourage teamwork to heighten safety awareness and morale. We currently use monthly safety recognition awards for individuals at each location and reward stores/department quarterly with luncheons and prizes for their safety efforts. This program helps send the message that safety is everyone's responsibility. ■



Rogie outside the southeast Portland Goodwill Superstore, the largest in the state.



## **Workers' Memorial scholarship applications being accepted**

Oregon OSHA presents scholarship awards annually to assist in the postsecondary education of spouses or children of permanently and totally disabled or fatally injured workers. The scholarship application deadline is **March 1, 2010**, for students interested in applying for scholarships for the 2010-2011 academic year. Applicants who submit their applications by the early bird deadline of **Feb. 16, 2010**, will receive a priority review with an opportunity to submit corrections if errors are found.

**For more information or to apply, please visit the Oregon Student Assistance Commission Web site: <http://www.osac.state.or.us/>**

*The 1991 Legislature established the Workers' Memorial Scholarship at the request of the Oregon AFL-CIO, with support from Associated Oregon Industries.*