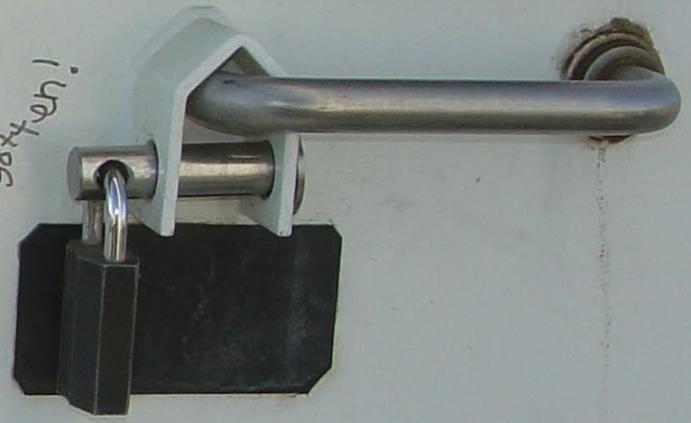


RESOURCE

DAD.
I will
Miss you so
Much, you
ake in my heart +
Prayers... you May
Not be here
But you are physically
all our hearts + souls
LOve: Kayla
8.29.07
Kayla
Be Never
FORGOTTEN!



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Mike Riffe makes it his mission to find out what went wrong in workplace accidents.

On the cover: The daughter of a fatality victim left this message at the scene of the accident. (Photo credit: Mike Riffe)

RESOURCE

Oregon Health and Safety Resource

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Department of Consumer and Business Services

Pat Allen, Director

Oregon OSHA

Michael Wood, Administrator

Resource editor

Melanie Mesaros

Design and illustration

Patricia Young

DCBS editor

Mark Peterson

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If you want to continue to receive the **Resource** newsletter, sign up for future issues at www.orosha.org.

Learning from failure is expensive, but not doing so costs even more

By Michael Wood



Much of this issue of the Resource is devoted to investigating accidents – particularly those that result in hospitalization or death. For many of us committed to preventing workplace injury, illness, and death, focusing on accidents is a difficult topic. We prefer, for very good reasons, to talk about prevention.

I know that many health and safety professionals prefer to avoid the word “accident.” While I share the frustration when a first responder or company official describes a predictable result as a “freak accident” in the news media, I think we confuse the topic when we say it wasn’t an accident because it could be predicted. When law enforcement or the medical examiner calls it an “accidental death,” they are talking about intent – not about predictability. The truth is that an “accident” refers to an unintended outcome, however likely or predictable it may have been.

In most contexts, I used another word: failure. When I see a fatality or hospitalization report cross my desk, I want to know how the system failed. In some sense, I want to know how I and the organization I lead have failed that worker. Because whatever else we may call them, and however good our programs and efforts are, the loss of life or the experience of a life-changing injury is certainly a failure. What else can we call it? And all of us – workers, employers, and government – need to understand those failures if we are to work together to prevent them in the future.

At its best, our efforts to understand the reasons behind our failures also reflect an understanding that this was not simply an “event” or an “incident” or a “statistic.” Each of these occurrences has

very real human consequences, involving individuals, their families, and their friends. Every fatality leaves a hole in the workplace, in the family, and in the community. And those holes must be acknowledged even as we go about our work.

In an article elsewhere in this issue, you can read about one of our primary investigators, Mike Riffe. I know from repeated experience that Mike never loses sight of the victim and the victim’s family. The lost worker plays a central role in every investigation Mike does, and even the educational efforts Mike develops based on the accidents he investigates are perhaps best viewed as a memorial to those who lost their lives.

That’s what we all should be working toward every time we set out to investigate, whether we are looking at a fatality, a hospitalization, or even a non-injury near miss. It is difficult to focus on those times that the system didn’t work the way it should. It is a challenge to study our failures. But, it is part of the job. If we turn away, and we refuse to learn the lessons these events offer, we simply compound the tragedy.

So we will study. And we will learn. And we will do better.

A handwritten signature in black ink, appearing to read "Michael Wood". The signature is fluid and cursive, written on a white background.



Making sense of tragedy

An Oregon OSHA investigator's mission

By Melanie Mesaros

Early in the morning or late at night, the call could come at any time for Mike Riffe, a seasoned accident investigator with Oregon OSHA. He has handled more than 250 accidents through the years, documenting the scene, analyzing machinery, recreating incidents, and interviewing employees, employers, and other witnesses to make sense of what went wrong.

"You see blood, gore, and ugly situations. You have to look past all of that and focus on what happened and how future incidents can be prevented," he said of his work, which can be not only emotionally charged, but also highly detailed.

Riffe came to Oregon OSHA in 1986 and worked as a safety compliance officer until 1990, when he left to manage the safety and health program at the Oregon Department of Fish and Wildlife. He returned in 2000 as an accident/fatality investigator in Portland. He has seen first hand how an accident can change a company's culture. He recalls a past case he investigated in which an employee fell through the ceiling into a cold storage cooler, suffering severe spinal damage.

"The owner of the company was devastated," Riffe said. "I made it a point to review safety and health management principles with him, as I do all employers. It took some time, but finally, his eyes lit up and he got it. They went on to become a Safety and Health Achievement Recognition Program employer."



Left: Riffe on the scene of a fatality investigation in Eastern Oregon.

Right: Riffe provides training to workers on how to prevent accidents and includes a tribute to those lost.

Riffe said there are common themes to his investigations, including the focus on production, distractions, and complacency. Although production is – and in most cases must be – No. 1, the work must always be done safely. That is where an employer’s commitment to safety really shows. If safety is not built into the process, the commitment is lacking. Distractions and complacency frequently result from a lack of accountability, he said.

“Too often, finger pointing is used in accident investigations. If the employer’s goal is to find out who did it, they will never get to prevention. They need to ask, ‘What went wrong?’ and then look carefully for weaknesses or holes in their safety program and fix them to prevent future incidents,” said Riffe.

One of the first things Riffe looks for during an investigation is the owner/operator manual or other manufacturer documents for the equipment, process, or products involved in an accident.

“Frequently, these documents provide a wealth of information regarding the potential hazards and the employer knowledge necessary to substantiate a violation. Unfortunately, it is rare that the information

has been adequately considered or conveyed to employees before the incident occurs. It is pretty common to see safety meeting minutes that generically cover a wide variety of topics and never address the specific hazards of the equipment being used.”

In the first few days after an accident, the family will frequently make contact with Riffe. Anger is a common emotion and those grieving also often want answers.

“You have to listen to them and have compassion,” he said. “They often think our job is to punish the employer for their tragic loss. I always tell them our job is to find out what happened and take action to prevent it from happening again, but so many times, they don’t hear that because they are so



Riffe tags a piece of machinery to preserve evidence in an investigation.

overwhelmed with the tragedy. It is, however, extremely important to listen carefully and develop open communications with them. They frequently provide information that is important to the investigation.”

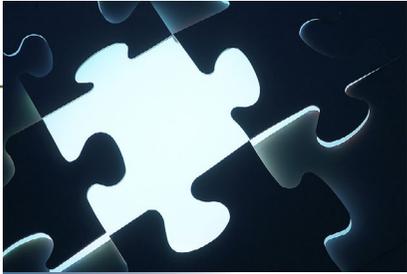
Riffe recommends that employers take the time to talk to victims’ families. Open communication can go a long way, he said.

“There are many families that are skeptical about the employer. ‘The employer hasn’t even talked to me’ is something I often hear from family members. The employer needs to show sincerity – that they really care,” he said.

Riffe’s passion for the job is not only evident in his in-depth investigations, but in the memorial presentations he has created to train other workers and employers. He has provided “In Memory of” workshops for companies, breaking down the details of what went wrong in real accidents, along with providing sound advice for prevention and a tribute to each lost worker.

When he gets that call, Riffe knows it’s because a life has been lost. He wants to make sure the victim is never forgotten.

“I do not lose sleep over the blood and gore,” he said. “I lose sleep over what caused it. I work to find out what happened and the steps necessary to prevent similar tragedies at workplaces.” ■



A problem with accident investigations

By Ellis Brasch

Most serious workplace accidents — accidents that happen infrequently but have catastrophic outcomes — are the result of a series of seemingly unrelated events, rarely perceived and never controlled or constrained. Such events persist as part of an organization's daily activities until someone makes a "mistake" — a subtle label for "operator error" or "human error" and the result is a fatality or catastrophe.

The task for investigators is to determine what went wrong. The problem with many accident investigations, however, is that they do not probe deeply enough into those seemingly unrelated events to determine why a fatality or catastrophe happened.

According to safety expert Fred A. Manuele, who has written extensively on the subject, such investigations often identify the technical reasons for an accident rather than addressing underlying causes. Because humans are inevitably connected with these events, it's easy for investigators to identify what the worker did wrong — the so called "operator error" — and call the investigation complete. Manuele argues that's not good enough; identifying technical defects and operator errors may not prevent future accidents and may lead to the belief that the problem is solved.

Operator errors are contributing factors in workplace accidents, but such errors are often linked to **latent conditions** within

an organization as well. Manuele and others have used the term to describe problems such as "poor design, gaps in supervision, undetected manufacturing defects, unworkable procedures, clumsy automation, shortfalls in training, and inadequate tools and equipment," which may be present for years before they "penetrate an organization's defenses." Accident investigations that focus on operator error rarely consider the latent conditions that may have influenced what the operator did wrong.

Manuele found that a large proportion of serious accidents happen when:

- Unusual and nonroutine work is performed
- Normal operations become abnormal because of an unanticipated problem
- Maintenance work is performed
- Sources of high energy are present
- In-plant construction work is performed by in-plant personnel

These are also situations where tasks are often unique, making established routines difficult or unworkable. Any deficiencies in an organization's safety culture — including its technical, operational, and managerial systems — can increase an operator's risk of exposure, the possibility of operator error, and the probability of a serious accident.

Latent conditions are the root causes of many serious accidents and can be deeply imbedded within an organization's safety culture.

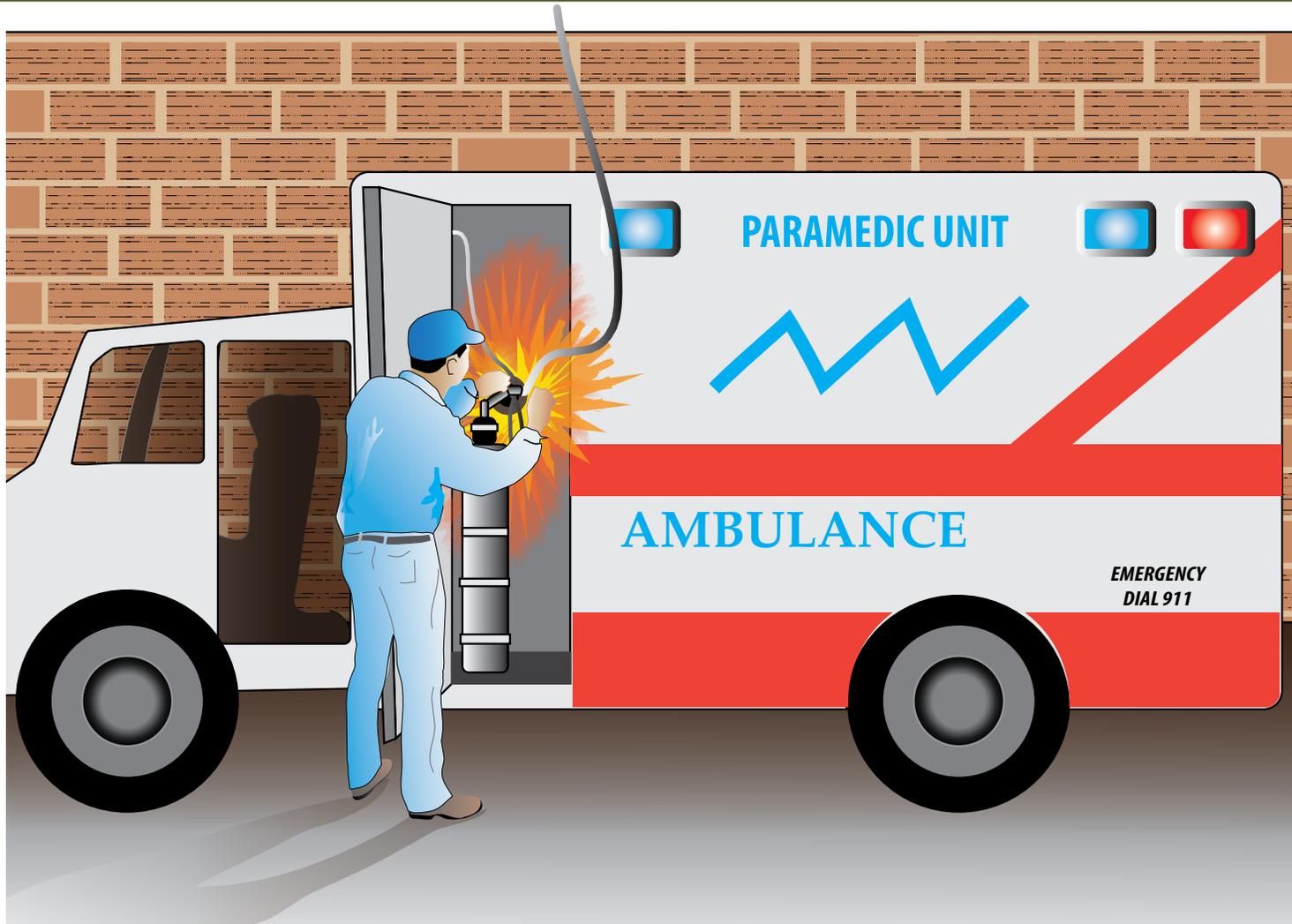
The accident investigator's task is easy to describe: define the accident; develop a causal understanding of why the accident happened; identify ways to control latent conditions; and monitor the effectiveness of the controls. The problem is that the investigator's task is not easy to accomplish and, as Manuele suggests, it's not always done right.

So, what do you do if you're a small-business owner and you're faced with the task of participating in an accident investigation at your workplace?

There are many techniques to evaluate the root causes of accidents, but perhaps the most useful (now) is the "5-why" technique. It's relatively easy to use and it doesn't require advanced statistical analysis or data collection. The technique follows a structured question-and-answer sequence that contains a feedback loop to the previous question. By asking enough times why an event happened, the technique is supposed to "peel away the layers of symptoms" associated with a problem. The process continues until another answer cannot be justified and the root cause is narrowed to the last question or answer set. ■



SAFETY NOTES



Accident Report
Incident | Explosion
Business | Medical response
Employee | Service technician

A vehicle service technician who worked for an emergency medical response company was cleaning and preparing an ambulance for the next shift.

He was checking the ambulance's on-board oxygen cylinder, preparing to top it off to 2,000-2,250 psi using a recently upgraded oxygen transfer system.

He shut off the valve on the oxygen cylinder then loosened a connection to drain a line between the cylinder and the system's header valve. After draining the

Continued on page 9

SAFETY NOTES - Continued

line, he attached a fitting to the header valve and opened the cylinder valve. When he reached over to open the header valve, there was an explosion.

He saw a flash of light and felt intense heat as the explosion blew apart the header valve and two sections of flexible fill hose.

He fell to the ground then crawled around the ambulance to the crew room where on-site paramedics treated him before transferring him to Emanuel Hospital with a pulmonary contusion and second-degree burns to his face and head.

Findings

- Oregon OSHA investigators found that the maintenance manager assigned the task of upgrading the oxygen transfer system had no previous experience installing it. As a result, a number of the parts that were purchased for the system, including the failed valve and other fittings, were not designed for oxygen service.
- Oregon OSHA cited the employer with two serious violations for not requiring employees to use personal protective equipment (the victim wasn't wearing eye protection when the explosion occurred) and for the unsafe installation of the oxygen system.
- Oregon OSHA also posted a red-tag notice at one of the employer's other sites after learning the system was also installed at that location with parts that weren't compatible for oxygen service.



Applicable standards

437-002-0134(8)(a) – Eye and face protection

654.010 – Employers to furnish safe place of employment

Left: The "M" size oxygen cylinder connected to the fill system shows what remained of the failed header valve following the explosion.

Top Right: This close up of the cylinder connection and fill system includes the failed header valve. To the left is the cylinder connection nut the employee loosened to vent the system pressure in order to connect the quick disconnect. There is visible damage from using an inappropriate tool to operate the relief fitting. The header valve used is for a hydraulic system, which is a quick-acting valve and not designed for oxygen use. It contained oil/hydrocarbon contamination.

Bottom Right: Section of stainless steel flexible fill line where the side blew out in one of three places.

Support organization works to help families of fallen workers

In 2003, Tammy Miser was faced with the decision to turn off her brother's life support after he suffered third-and-fourth-degree burns in an aluminum dust explosion at a Kentucky factory.

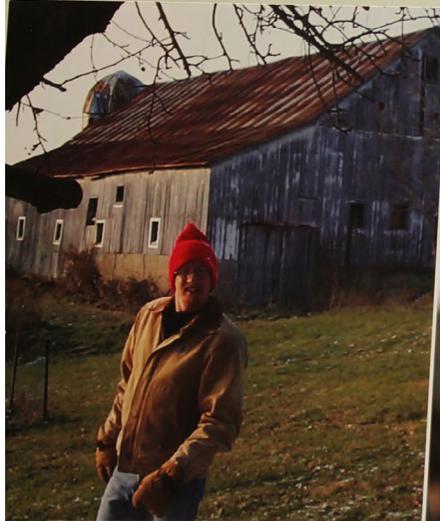
"His internal organs were burned. His eyesight was gone. He had no hope," Miser said.

She felt as if no one understood her pain and also experienced feelings of injustice and anger. That's when she started United Support and Memorial for Workplace Fatalities (USMWF), a nationwide support group made up of families who have also lost loved ones in a workplace accident.

"I couldn't relate to anyone else ... it's so different from any other thing you experience," she said.

Miser said the group isn't a counseling or legal service, but rather a place for support, guidance, and resources for families. The organization grew into an official nonprofit after Miser's website, www.usmwf.org, started gaining a following in 2008.

"The No. 1 thing I hear from family members I deal with is that they don't want this to happen to another family," she said.



Tammy Miser testified before a U.S. House of Representatives subcommittee in 2011 with a photo of her brother, Shawn Boone, by her side.

Miser also uses the USMWF website to honor those lost in workplace accidents. "The Faces Campaign" invites families of victims to add a photo of their loved one as a tribute.

"The No. 1 thing I hear from family members I deal with is that they don't want this to happen to another family."

— Tammy Miser

NEWS BRIEFS



Lifesaving awards are presented at the Medford conference.

Photo credit: Trena VanDeHey

Southern Oregon Conference honors 'Lifesaving' acts



Corinna Morrison

Attracting more than 300 attendees, the Southern Oregon Safety and Health Conference was held on Oct. 17-18, 2012, in Medford.

State Sen. Alan Bates and the American Society of Safety Engineers (ASSE) – Southern Chapter, the conference sponsor, honored three groups with Lifesaving awards:

Corinna Morrison, a hostess at the Outback Steakhouse, saved a high school wrestler's life by using the Heimlich maneuver to dislodge a piece of steak caught in his throat. ASSE awarded Morrison a \$500 scholarship to pursue future studies in emergency medicine.

Three employees of the Eagle Point High School were recognized for using an automated external defibrillator (AED) to restore the heartbeat of a 16-year-old student who collapsed in the gym. ASSE provided the school with a second AED for quicker access.

Roger Adams and Bruce Fauble saved the life of a fellow golfer by administering CPR while at the Eagle Point Golf Course. The victim was sent by ambulance to a local hospital, where he had triple bypass surgery. ASSE also provided Eagle Point Golf Course with its first AED.

Conference keynote speaker Fred Drennan presented an interactive session on developing leadership, building on his research that supervisors play a critical role in preventing an accident-free culture.



Roger Adams and Bruce Fauble

2013 Oregon GOSH Conference programming announced



With more than 150 workshops and sessions, the Oregon Governor's Occupational Safety and Health (GOSH) Conference will be held March 4-7, 2013, at the Oregon Convention Center in Portland. The event is the largest of its kind in the Northwest.

Keynote speaker Jeff "Odie" Espenship will present "Getting Back to Basics is Vital to Superior Performance — It's the Little Things that Matter" on March 5. An author, renowned speaker, and former U.S. Air Force fighter pilot, Espenship will motivate audience members to rethink and refocus their work behavior.

"By setting high expectations, by speaking up, by listening to what is not being said, by overcoming complacency (the silent killer), by never assuming, and by communicating to understanding helps us achieve new heights in life and leadership," said Espenship.

Other general topics covered at conference include:

- Safety committee training and communication
- What to expect from an OSHA inspection
- Workplace wellness
- Regulatory updates

Conference specialties such as ergonomics, construction, emergency preparedness and response, industrial hygiene, and utility work are some of the other session tracks.

Registration for the event is slated to open in late December and organizations can reserve exhibit space now. Back by popular demand is the Columbia Forklift Challenge, where teams and individuals will compete for cash prizes based on skill, time, and safety.

For more information, go to www.oregongosh.com.

Public education section offers updated, new classes

Oregon OSHA is now offering updated classes on Confined Spaces and Hazard Communication, along with the new course titled "Identifying and Controlling Hazards." The two updated classes reflect rule changes now in effect. Jason Jantzi, public education manager, said the new course will help focus on how hazards are being created.



"Too often employers focus on simply finding and fixing hazards that are present," said Jantzi. "This class melds root cause analysis, which is normally associated with accident investigation, with the hazard identification process that is done every day."

Jantzi said this type of process offers a more thorough understanding of why that hazard exists so a company can eliminate it for good.

"By taking steps now to identify and control hazards, you can substantially reduce the risk of a workers' compensation claim," Jantzi said.

Find more information about these classes and the public education schedule at www.orosha.org/education.html.



Congratulations to the new SHARP companies:

- Reese Electric, North Bend
- Cintas Corporation No. 3 – First Aid and Safety, Beaverton

Annual safety video contest opens to Oregon students

High school students across Oregon are invited to enter the annual “Speak up. Work Safe.” video contest. Teens have used special effects, humorous story lines, and creative characters to promote young worker safety and health in past videos. The top three entries will take home cash prizes ranging from \$300 to \$500 and students will earn a matching amount for their school.

“We just love making videos that make each other laugh,” said Drew Corrigan, a 2012 first-place winner from Sisters, who created the superhero character “Safety Man” to draw attention to workplace dangers.

The contest is designed to increase awareness about safety on the job for young people. Students must create a 90-second or less video with the overall theme of “Speak up. Work Safe.” Specific video guidelines are outlined in the contest rules. Participants are encouraged to

use humor, creativity, and share the message “Speak up. Work shouldn’t cost you your future” while emphasizing ways to protect themselves at work.

Submissions will be judged on the following:

- A teen worker health and safety message based on the concept of “Speak up. *Work shouldn’t cost you your future*” as the main focus of the video (See rules for more specific details.)
- Creativity and originality
- Overall production value (video and audio quality)
- Youth appeal

The deadline for submissions is Feb. 1, 2013.

Contest winners will be unveiled at a screening event to be announced in the spring of 2013 and students are encouraged to use social media to spread the word about their contest entries with the tag O[yes] video.

For detailed contest information, including contest tips, rules, and entry forms, go to www.youngemployeesafety.org.

The Oregon Young Employee Safety Coalition (O[yes]), Oregon OSHA, SAIF Corporation, American Society of Safety Engineers, Liberty Northwest, the Greater Portland Construction Partnership, the Center for Research on Occupational and Environmental Toxicology (CROET), the Central Oregon Safety and Health Association, SHARP Alliance, and Hoffman Construction are sponsoring the contest.



Scenes from last year's video award presentation at Northern Lights Theater in Salem.

Q:

I teach a workplace safety course at a community college. Increasingly, the issue comes up in class about what a young person can do to advocate safer working conditions. It's not uncommon for my students to be asked or required to work under unsafe conditions with the threat of being intimidated, scapegoated, bullied, or fired if they do not get the job done.

A:

Can you suggest an effective way for young workers to advocate safer conditions for themselves and others at work?

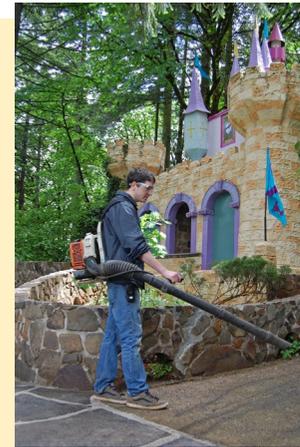
The most effective way for young workers to advocate safer working conditions is to know and exercise their rights under the law. Young workers are protected by the same laws that protect older workers — laws that cover minimum wage, overtime hours, payday, and workplace safety.

Advice for every young worker who begins a new job:

- If you feel that you're in danger when you're working, you probably are. If you're worried about a hazard or getting hurt on the job, tell your supervisor. If you're worried about being intimidated or fired, contact the nearest Oregon OSHA office to report the hazard.
- Don't put up with threats and intimidation on the job: If you think that your employer or supervisor will punish you because you're concerned about working conditions, that's discrimination and it's against the law. You can file a complaint with the Civil Rights Division of the Bureau of Labor and Industries (BOLI).

Important phone numbers:

- [Oregon OSHA](#): (503) 378-3272 or (800) 922-2689
- [Bureau of Labor and Industries \(BOLI\)](#): 971-673-0764.
- [Oregon Young Employee Safety Coalition \(O\[yes\]\)](#)



GOING THE DISTANCE – Meet a leading Oregon health and safety professional



Company: Oregon Department of Consumer and Business Services

Ombudsman for Injured Workers: Jennifer Flood

Number of workers assisted each year: 8,000 to 10,000 annually

Can you explain what your role is?

I provide assistance to injured workers and participate in statewide discussions that may impact workers' rights or benefits. My staff and I advocate for injured workers in their dealings with the workers' compensation system. We provide workers information about their rights, responsibilities, and benefits, as well as the rights and responsibilities of their employer or insurer. When assistance is needed beyond general information, we investigate and act to resolve the complaints or concerns.

What are some of the common issues you are able to assist with?

The workers' compensation process can be complex. Many of the inquiries that come to our office involve questions about what benefits are available and how to obtain those benefits. For instance, a worker calls our office and indicates he was injured three weeks ago and the doctor took him completely off of work, but he has not received any time-loss compensation. We will call the insurer to verify whether they are processing the claim and review other things such as whether a time-loss check was mailed, whether they have the accurate mailing address of the worker, etc. If there's a glitch, we assist in resolving the issue to ensure the worker receives benefits he or she is entitled to. Another example is when a worker is told her claim is being closed and her benefits are ending. In some cases, the doctor has indicated that the worker

Continued on page 16



Flood assists workers and the families of workers after an on-the-job accident.

is not able to return to the job and her rent and bills need to be paid. In most cases, the insurer is appropriately processing the claim and we explain what options are available within the workers' compensation system. We also provide possible resources for assistance that may be available in their community.

I strongly believe that knowing where you stand (good or bad) is essential to making decisions going forward in life. We strive to ensure workers have a clear understanding of their rights and responsibilities and we are a resource to help them through the workers' compensation process. If possible, we try to help them through steps to get the worker back into the workforce.

A workplace death or injury is traumatic for any family. How do you help when things become emotional?

We listen and then listen more. It's an extremely difficult time for a family. Everyone reacts differently with death, and an unexpected death can be unbearable. We respect that everyone is different and we take the conversations at whatever pace they need. We look for opportunity to provide assistance and empathize with what the family is going through. If needed, we facilitate communication between the funeral home and insurance company or any other party that may be involved.

Continued on page 17

GOING THE DISTANCE - Continued



Alicia Benavidez (left) reviews a worker's question with Flood about time loss.



Flood meets with staff regarding a workers' compensation issue.

What type of training do you offer for businesses?

We will do any type of training related to the workers' compensation claim process.

We can provide training to workers, unions, employers, insurers, special interest groups, etc. The topics can range from very general workers' compensation 101 to specific issues within the workers' compensation system. I like to find out what the needs of the group are and then custom design the training.

Do you have any advice for business owners who may be trying to cope with a fatality or accident?

When there's been a fatality or accident, it's important for the business to take care of both the employee and the business. Contacting their workers' compensation insurer will start the process of taking care of both. Knowing ahead of time what your rights and responsibilities are will help ensure everything is taken care of. If you have questions – you can always call your insurer or my office.

To contact Jennifer, call 800-927-1271 (toll-free) or 503-378-3351 or e-mail oiw.questions@state.or.us.



Flood helps educate insurers about the claims process at a Salem conference.

January 2013

12th Annual
Mid-Oregon Construction Safety Summit



Safety Takes Every Person

Bend, Oregon • January 29, 2013



GET IN STEP!

Join us for training designed for residential and commercial construction workers.

Topics include:

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- Sprains, Strains, and Shoulder Care
- Hazard Communication
- Rigging and Crane Awareness
- Electrical Safety NFPA 70E
- Improving Your Safety Program
- Confined Space Safety
- SHARP – The Experience
- Bridge Construction
- Excavation Safety
- Wellness at Work
- Pre-Task Planning

Registration fee

General Admission \$65 per person
After Jan. 23, 2013..... \$80 per person

Continuing education credits available.

Register NOW! www.regonline.com/construction_summit13

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Join us in Portland at the Oregon Convention Center

MARCH 4-7, 2013

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OCCUPATIONAL SAFETY
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The GOSH Conference is a joint effort of
ASSE, Columbia-Willamette Chapter, and Oregon OSHA.

