

Health and Safety

RESOURCE

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RESOURCE

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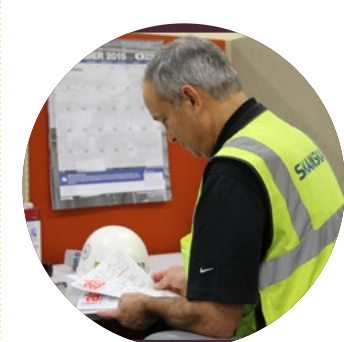


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Oregon OSHA expects 2016 to be an ambitious year

By Michael Wood

As 2015 draws to a close (which included my 10-year anniversary as administrator of Oregon OSHA), I find myself looking ahead to 2016 with considerable anticipation. For a variety of reasons, we here in Oregon will be tackling several challenges in the year ahead – and I am sure that we will prove ourselves up to each of them.

I have written before about the challenge of the outdated permissible exposure limits (PELs). Oregon OSHA will be tackling that problem using two distinct, but inter-related, approaches.

First, we will be identifying ways that we can better encourage employers to consider more up-to-date and protective reference levels – using our consultation and educational resources, but also reinforcing the important role of education even as part of our enforcement visits. It is clear that federal OSHA will never be able to keep the regulatory levels sufficiently up to date, at least until a completely new approach is developed and adopted. But that does not mean that Oregon workers need to go unprotected. The levels published by the National Institute for Occupational Safety and Health and the American Conference of Government and Industrial Hygienists are based on much more current exposure and health information, and even where they cannot be



Oregon OSHA Administrator

as they make decisions about the protective measures they can put in place.

The second approach will be to tackle four to six of the most significant and outdated PELs on a state level. While we cannot address them all, that should not prevent us from dealing with at least some of the problems. To do so, we will be bringing together a group of toxicologists, industrial hygienists, and others to advise us about which chemicals represent the most significant unregulated – or under-regulated – risks, as well as to identify any existing state-initiated PELs that are unnecessarily restrictive. It won't be easy, but the work is important.

In addition to the PELs, of course, we still plan to complete rulemaking that addresses the issue of employer knowledge and the role of reasonable diligence in determining whether an employer has “constructive knowledge” of a violation in the worksite. We will begin those conversations again early in the year.

Of course, we will also be finalizing rules to resolve federal OSHA's concerns regarding our standards addressing fall protection in construction. Those rules have been

used for enforcement purposes, employers can be encouraged to consider them seriously

formally proposed, and we will be holding a series of hearings next month.

All of this activity will occur amid the “normal” business of the agency – and that business is perhaps our most important activity. We will continue to tackle workplace hazards – particularly those that create a meaningful risk of death – as we find them. Our consultation, education, and enforcement activities will continue to build upon our past successes. At the same time, we will continue to seek new approaches and new strategies, both to tackle new challenges and to address unresolved issues of the past.

In short, we have a busy year. But the work matters, because the workers we protect matter.



We will continue to seek new approaches and new strategies, both to tackle new challenges and to address unresolved issues of the past.

Don't miss out



Mid-Oregon Construction Safety Summit

Bend
Jan. 25 & 26, 2016

Join us for training designed for residential, commercial, and industrial construction workers, and agriculture.



For more information, visit www.orosha.org/conferences
 Registration opens in December:
www.regonline.com/construction_summit16

Cascade Occupational Safety & Health Conference

Eugene
March 8 & 9, 2016



Save the date!

Join us at the Valley River Inn, for the 17th biennial conference, which will cover a wide variety of topics from "Emergency Preparedness" to "Marijuana and the Workplace."

Keynote speaker –

Erike Young, Global Safety Manager at Google, will present **"Risk Managers are from Mars, Safety Professionals are from Venus: Creating a Perfect Marriage."**



Registration available in January 2016. If you want to receive registration materials, exhibitor information, or sponsorship information for the 2016 event, contact the Conference Section:
oregon.conferences@oregon.gov
503-378-3272
www.orosha.org or cascade.asse.org

Education:

Upcoming December workshops:

Accident Investigation	Medford	12/17/15
Excavation Safety	Medford	12/17/15
Hazard Identification and Control	Salem	12/15/15
Worker Protection Standard	Medford	12/09/15
	Salem	12/15/15



For more information: www.orosha.org/educate/pdf/schedule4.pdf

To access the public education schedule for January-March 2016:
www.orosha.org/educate/pdf/schedule1.pdf

Did you know?



Oregon OSHA to propose changes to construction fall-protection requirements

Oregon OSHA is proposing to change the construction industry's 10-foot fall-protection requirement to six feet and to revoke the use of slide guards as a primary fall-protection system. The proposal aims to address federal OSHA's concern that the current requirements are not as effective as its requirements.

The proposal would only affect the requirements in Subdivisions 3/M (Fall Protection) and 3/E (Personal Protective and Life Saving Equipment) and would take effect Jan. 1, 2017, when Oregon OSHA would adopt the six-foot requirement and Oct. 1, 2017, when Oregon OSHA would prohibit the use of slide guards.

Public hearings on the proposed rulemaking are scheduled for:

- Jan. 7, 2016 1:30 p.m. Seaside
- Jan. 12, 2016 10 a.m. Tigard
- Jan. 13, 2016 10 a.m. Eugene
- Jan. 14, 2016 10 a.m. Medford
- Jan. 20, 2016 10 a.m. Bend

For more information, see Oregon OSHA's [Proposed Rules webpage](#).



Data points

- In 2014, there were 77 years separating the oldest and youngest workers who received workers' compensation for their injuries. The youngest was a 15-year-old groundskeeper who sprained her back while lifting a log. The oldest was a 92-year-old librarian who fractured her pelvis when she fell to the floor.

Source: Workers' Compensation Claim Characteristics brochure (Calendar year 2014)

- **The top 10 preventive health and wellness benefits offered by employers in 2015**
 1. Wellness resources and information
 2. General wellness programs
 3. On-site seasonal flu vaccinations
 4. Wellness publications
 5. 24-hour nurse line
 6. CPR and first aid training
 7. Health and lifestyle coaching
 8. Smoking cessation program
 9. Health screening programs
 10. Health fairs

Source: Society for Human Resource Management

Total Worker Health

Wellness programs that keep workers safe

by Aaron Corvin and Ellis Brasch

Imagine you are the head of a company whose productivity hinges on keeping employees safe and healthy. Your company already furnishes the proper safety equipment. And it just launched a monthly newsletter informing workers of their responsibility to lead healthier lives.

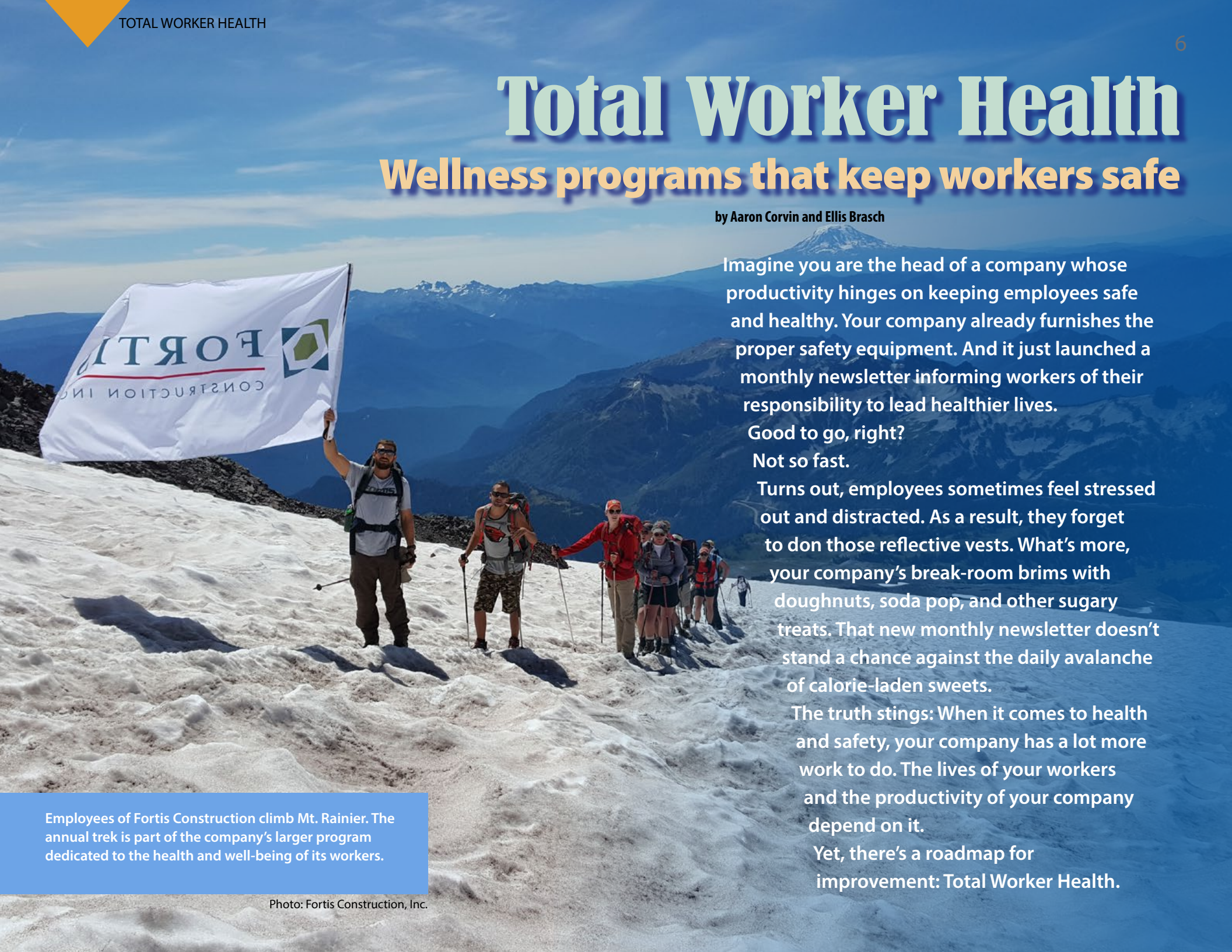
Good to go, right?

Not so fast.

Turns out, employees sometimes feel stressed out and distracted. As a result, they forget to don those reflective vests. What's more, your company's break-room brims with doughnuts, soda pop, and other sugary treats. That new monthly newsletter doesn't stand a chance against the daily avalanche of calorie-laden sweets.

The truth stings: When it comes to health and safety, your company has a lot more work to do. The lives of your workers and the productivity of your company depend on it.

Yet, there's a roadmap for improvement: Total Worker Health.



Employees of Fortis Construction climb Mt. Rainier. The annual trek is part of the company's larger program dedicated to the health and well-being of its workers.

Photo: Fortis Construction, Inc.

Backed by a growing body of scientific research and supported by key government and industry leaders, the concept calls for a more comprehensive and coordinated approach to increasing workplace health and safety.

It's a 24/7 approach that blends occupational safety and health protection with health promotion to prevent illness and injury among workers. Under a Total Worker Health system, employers show their commitment to their workers' well-being in a variety of ways. Those include offering fresh, healthy foods and water in the break-room, creating opportunities for workers to move or exercise during the workday, and giving them time to gather their thoughts before they head out on a job.

Total Worker Health is not just another wellness program. And the concept goes beyond healthy food and exercise. It also involves employers and supervisors re-thinking how tasks are structured. That re-evaluation process includes ensuring that employees are working shifts that allow them to get enough sleep and assessing employees' workloads to reduce stress.

The larger idea is to "go the extra mile and create cultures that don't just prevent stress but that actually help employees thrive," said Deborah Fell-Carlson, policyholder safety and wellness adviser for SAIF Corporation, Oregon's not-for-profit, state-chartered workers' compensation insurance company.

Going the extra mile by using Total Worker Health initiatives is no mere blue-sky idea. Oregon is a leader in putting the concept into practice. And multiple companies in the state have already implemented Total Worker Health strategies, with more projects in the offing.

Those strategies include everything from offering bike racks and showers in the office to building sustained fitness programs that come with incentives

for employees. Such strategies are interwoven into a larger health and safety program that calls for robust compliance with workplace health and safety rules.

For Fortis Construction Inc., a Portland-based general contractor, Total Worker Health is a regular part of doing business.

The company has numerous programs in place, including an app that walks and talks workers through a morning warm-up routine, an annual summer-long fitness challenge, and company retreats that always involve physical activities.

Company leaders walk the talk: They climb a mountain every year.

You can't "put a dollar value on pride, quality of life, and a happy workplace, but it's there," said Demetra Star, safety director at Fortis. "It has positive effects on productivity, camaraderie, and retention."

"You can't put a dollar value on pride, quality of life, and a happy workplace, but it's there. It has positive effects on productivity, camaraderie, and retention."

— Demetra Star, safety director, Fortis



Photos: Fortis Construction, Inc.



Fortis Construction maintains robust health, fitness, and wellness programs. The company participates in charity races, conducts an annual mountain climb, and offers activities during retreats, such as paddle-boarding.

In adopting Total Worker Health initiatives, R&H Construction, a Portland-based commercial construction company, provides its employees with everything from biometric screenings and healthy breakfasts at job sites to advice from financial planners.

The company sees the financial stability of its workers as a component of their well-being.

“It’s more than just safety, it’s more than just wellness. It’s the well-being of each employee.”

— Karen Swanzy, payroll and benefits administrator, R&H Construction, Portland



“It’s more than just safety, it’s more than just wellness,” said Karen Swanzy, the company’s payroll and benefits administrator. “It’s the well-being of each employee.”

Achieving results

The personal and financial costs of failing to improve health and safety practices pile up like cordwood.

The economic burden of occupational disease, injury, and death in the United States is \$250 billion in direct and indirect costs, or 1.8 percent of the country’s gross domestic product, according to The Milbank Quarterly, a health policy journal.

In the transportation industry alone, the numbers are staggering.

A 2010 study by the National Institute for Occupational Safety and Health (NIOSH) found that more than two-

thirds of long-haul truck drivers were obese. By contrast, one-third of U.S. working adults were reported to be obese. Obesity increases the chance for type 2 diabetes, sleep apnea, heart disease, cancer, joint and back pain, and stroke.

And such health conditions can disqualify drivers from receiving or keeping their commercial driver’s license. That creates personal and financial hardships for employees. For companies, the results are fewer workers retained and higher losses in time, money and productivity.

In Oregon, as of Nov. 17, there have been 55 initial reports of workplace deaths. Of those, 23 were caused by falls, motor vehicle accidents, machinery accidents, and similar events. One worker committed suicide, and one worker died from a drug overdose. However, 30 workers died from so-called “natural causes” – heart attack, stroke, and other medical conditions. That means 60 percent of those 55 deaths happened at work, though they were not necessarily work-related.

Still, the question looms: Could a Total Worker Health program have prevented some of those deaths?

At Tradewinds Transportation, such programs are achieving success. In the past few years, the Albany-based freight hauler has made several changes. Those include dropping “Doughnut Fridays” in favor of “Fit Fridays,” with grab-and-go boiled eggs, fruit, yogurt, and other fresh, nutritious snacks available to employees.

Workers are losing weight. They’re able to concentrate better on the road. And the company’s turnover rate is well below the industry average.

“We really retain our employees,” said Heather Hayes, operations manager for the company.

Multiple studies confirm that Total Worker Health programs achieve positive results.

The return on investment in such programs ranges from \$2.05 to \$4.61 per dollar invested, according to studies in the American Journal of Public Health and Occupational Medicine, an international journal. Other studies show decreased tobacco use by employees, sustained weight loss in workers, and reduced worker blood pressure.



Photos: Tradewinds Transportation

Tradewinds Transportation has embraced Total Worker Health, including dropping “Doughnut Fridays” in favor of “Fit Fridays,” with fruit, yogurt, and other fresh snacks available to employees.



Heather Hayes, operations manager at Tradewinds Transportation, Albany



Photo: R&H Construction

Partnerships are key

Total Worker Health isn't new.

It grew out of actions taken in the early 2000s by the federal government. Those actions intensified in 2004, when NIOSH crafted an initiative called "Steps to a Healthier U.S. Workforce," including a three-day "Steps" symposium. At the time, John Howard, director of NIOSH, said the initiative would "bring a new, more coordinated approach to achieving the goal of healthier, safer American workers."

Today, that more coordinated approach is known as Total Worker Health – a NIOSH brand name and registered trademark of the U.S. Department of Health and Human Services.

Among a handful of other states and regions in the nation, Oregon represents a leading laboratory of sorts when it comes to Total Worker Health. For example, NIOSH has designated SAIF Corporation as a Total Worker Health affiliate. Meanwhile, the Oregon HealthyWorkforce Center – a NIOSH Center of Excellence in Total Worker Health – is a collaboration of many partners. They are: Oregon Health & Science University's Oregon Institute of Occupational Health

Sciences; Portland State University's Occupational Health Psychology program; the Center for Health Research – Kaiser Permanente; and the University of Oregon's Labor Education Research Center.

Dede Montgomery is a senior research associate with the Oregon Institute of Occupational Health Sciences. She supports the institute's outreach and education programs, and provides the institute with expertise in industrial hygiene.

"What helps in Oregon is that we have good networks of collaboration that help us when we're trying to make some (Total Worker Health) adoptions," Montgomery said.

To be sure, the Total Worker Health movement remains a work in progress. But Montgomery and other leaders are busy conducting research and spreading the word in hopes of getting more employers and workers on board.

And programs can be tailored to fit big, medium, and small companies, and different workplace situations.

"There's no one size that fits all," Montgomery said. ■



Photo: Tradewinds Transportation



There's no one size that fits all"
– Dede Montgomery



Live long and prosper: The new case for productive aging

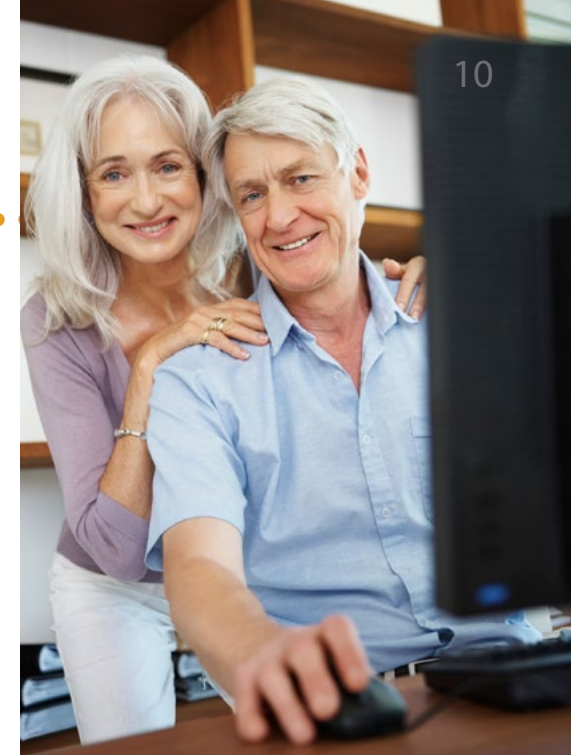
by Ellis Brasch

"[Retirement] is no longer an automatic shift in gears from work to non-work at a set age. It is, rather, a voluntary withdrawal from the workforce at the age that best suits an individual's abilities, interests, and career plans."

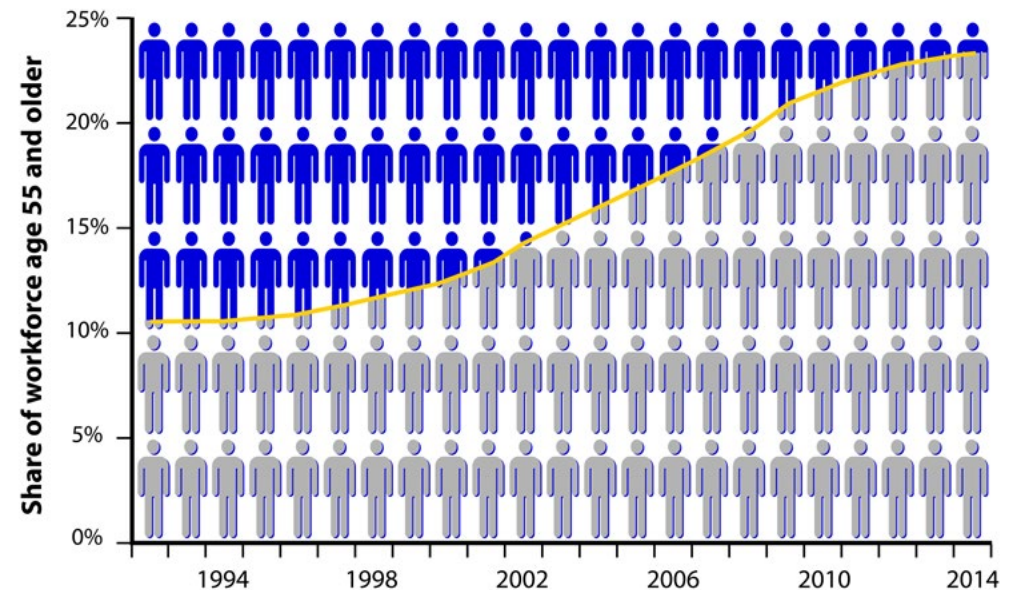
The End of Mandatory Retirement: Implications for Management,
James W. Walker, Harriet L. Lazer (1978)

We're all getting older – really. And, for those of us known as baby boomers, the consequence of this seemingly mundane reality will have a major effect on families and health care providers – and employers. Consider that the number of jobs held by Oregonians who are 55 and older has tripled since 1992. And the 55-and-over crowd is the only age group whose labor force participation is projected by the Oregon Employment Department to increase through 2020.

So, while those of us tagged with the baby boom moniker are losing our "prime working age" status, many of us are still working and will continue to work into the next decade. There are two reasons why we are continuing to work into our so-called retirement years. We enjoy the work that we are doing and see no reason why we should stop. Or, our lives have been complicated by the need to work longer than we had originally planned. Regardless of the reason, employers and workplaces will need to be prepared for the change.



Nearly one in four workers in Oregon is 55 or older



Can we do our jobs as well as we did them when we were younger? Yes – most research shows no consistent relationship between aging and work performance.

But our bodies change as we age and those changes affect how we work and how we adapt to our environment. We reach full physical maturity at about age 25 and we start to notice changes in our 40s and 50s. Our maximum muscular strength decreases. Our joints are less flexible. Our hearts and lungs carry less oxygen. It becomes harder to maintain good posture and balance. Our sleep cycles are less robust. We are more sensitive to changes in environmental temperatures. Changes in our vision affect our ability

to read at certain distances, our peripheral visual field, our visual acuity, our depth perception, and our resistance to glare. Higher frequencies are more difficult to hear. And cognitively, we find it harder to multi-task, our short-term memory is less nimble, and distractions tend to be more... distracting.

What effect do these changes have on our risk of injury at work? Older workers have fewer non-fatal injuries than their younger counterparts but their injuries tend to be more severe and it takes longer for them to recover. And, as we age, our risk of dying in a workplace accident increases. The fatality rate for workers 65 and older is dramatic – historically, three times as high as the fatality rate

for workers aged 45 through 54. However, older and younger workers do have one thing in common: transportation accidents, which claim more workers' lives than any other work-related event.

Still, work is good for many of us as we age. Work keeps us engaged in things that we enjoy doing. And work keeps us connected with other people and technological changes affecting the workplace.

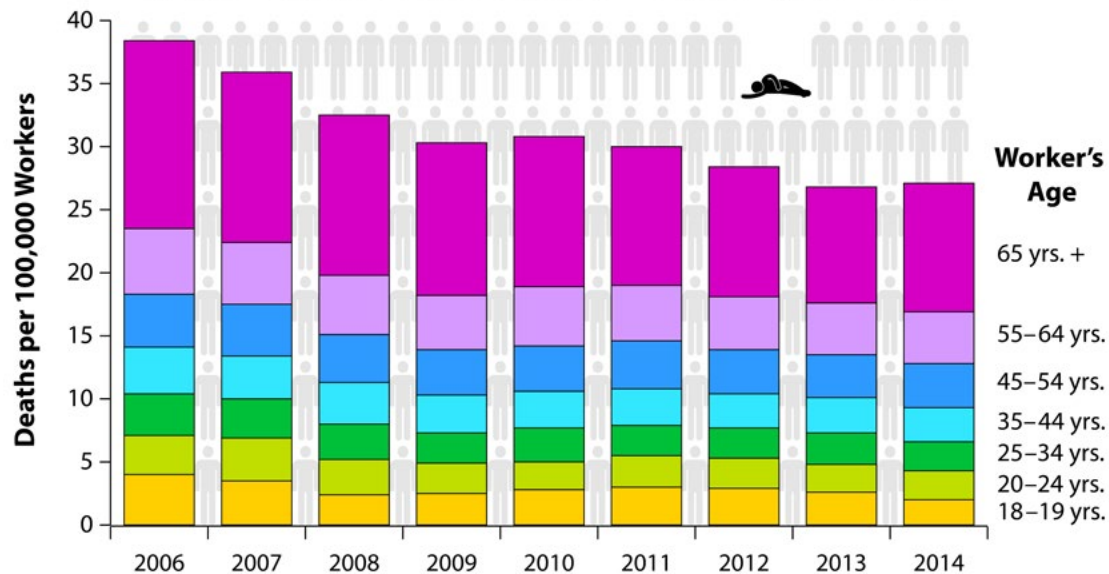
While there has been a dramatic shift in the age of our nation's population as baby boomers have aged, there are still few practical guidelines that employers can use to accommodate those who choose not to retire. However, help may be on the way. In October, the National Institute for Occupational Safety and Health (NIOSH) opened the [National Center for Productive Aging and Work](#) which, in the words of NIOSH Director John Howard, will focus on "advancing the best ways to both address the needs and challenges of aging workers, and recognize the benefits of an aging workforce." The center is hosted by the NIOSH Office for [Total Worker Health](#).

Interestingly, NIOSH has been involved with research on aging and the older worker for the past 15 years, and the concept of *productive aging* – emphasizing the positive aspects of growing older – has an even older history. Robert N. Butler (author of the 1975 Pulitzer Prize-winning book *Why Survive?*) coined the term in 1983 to counter the stereotype of older people as frail and unproductive.

The Oregon Institute of Occupational Health Sciences also offers useful information on aging workers; check out its "[Aging Workforce](#)" webpage. ■

Workplace fatality rates: U.S. workers by age group

The fatality rate represents the number of fatal occupational injuries per 100,000 full-time equivalent workers based on total hours worked by all employees during the calendar year.



Short takes

IH recruitment – five job openings with Oregon OSHA

Spotting an opportunity to bolster her skills and serve the public, **Brandi Davis** left the private sector in 2002 to join Oregon OSHA as a health compliance officer.

At the time, Davis figured the new job would be a relatively short stint, maybe five years. She would broaden her skills and then hop back to the private side.

Fast-forward to today. It would be an understatement to say Davis is looking forward to staying put with Oregon OSHA. The senior health compliance officer now has 13 years with an agency dedicated to improving workplace safety and health for all workers in Oregon. And she continues to grow her skill set.

“When you are in a private industry, you become a master at one trade,” Davis said. “When you work for Oregon OSHA, you become a master at several trades.”

Davis is one of up to 28 health compliance officers for Oregon OSHA, a division of the state’s largest business regulatory and consumer protection agency: the Department of Consumer and Business

Services. The division conducts about 900 health inspections annually and about 3,300 safety inspections per year involving employers in the private and public sectors.

The division’s health compliance officers are devoted to carrying out the art and science of industrial hygiene. Combining elements of engineering, chemistry, physics, and other disciplines, it’s a multi-faceted world in which they evaluate, prevent, and control workplace stresses and hazards to help workers and their families lead healthy lives.

With five job openings on its health compliance staff, Oregon OSHA is looking for applicants who are committed to protecting the health and safety of people in the workplace and the community. Job responsibilities include handling health evaluations and investigations; taking enforcement action in a broad range of workplaces; overseeing technical training; and assisting employers and employees in reducing environmental threats and pressures in the workplace.

Opportunities for continuous learning are many. Likewise, the chance to conduct a variety of positive work to boost worker health and well-being are



“I really enjoy the variety. When you’re working for one specific company, you only learn a couple industry processes”

– Brian Hauck, compliance officer

abundant. Just ask **Chris Ottoson**, statewide manager for health enforcement and emergency preparedness for Oregon OSHA. He has more than 30 years of experience in industrial hygiene.

“We get to practice our profession in the broadest terms with the greatest impact,” he said.

Brian Hauck will tell you about it. The health compliance officer has been with Oregon OSHA for 18 years. Working for the agency, he said, gives him latitude to tackle problems, access to a state-of-the-art chemistry lab and room to learn as much as possible.

“I really enjoy the variety,” he said, noting that complacency is not an option at the agency.

By contrast, Hauck said, the private sector comes with limitations.

– continued on Page 13

IH recruitment – continued

“When you’re working for one specific company, you only learn a couple industry processes,” he said.

And protecting people is no abstract notion, as evidenced by one recent problem Hauck fixed. During a visit to a small foundry, Hauck discovered that employees weren’t wearing respirators as they sharpened and welded raw material into bronze statues.

He convinced the employer to do the right thing. The employees now wear respirators.

“Had we not gone in there, they would have been exposed – day after day, year after year – all of this metal in their lungs,” Hauck said.

For Davis, the job is rewarding on multiple levels. The diversity of the work takes her everywhere from a food manufacturer’s facility one day to a

company’s sawmill the next and to a dental office the day after that. She works flexible hours. Mentors and experts in a range of fields and industries are just down the hall where she works.

“You’re working in an environment where you have such a depth of experts that are all around you,” Davis said.

Ultimately, though, it all comes down to focusing on the short- and long-term health and livelihoods of people and communities.

“We get to have an impact with employers to protect employees every day,” Davis said.

“You’re working in an environment where you have such a depth of experts that are all around you. We get to have an impact with employers to protect employees every day”

– Brandi Davis, compliance officer



For more information about the five job openings on Oregon OSHA’s health-compliance staff, please visit www.dcbjobs.org.

For more information about Oregon OSHA, go to www.orosha.org.

Here are direct links to the job announcements, *open until December 18, 2015*:

[Industrial Hygienist 2 – Eugene](#)

[Industrial Hygienist 2 – Tigard](#)

[Industrial Hygienist 3 – Bend](#)



Violation penalty increases likely for state OSHA plans

On Nov. 2, President Barack Obama signed into law a budget bill (H.R. 1314) requiring OSHA to increase its maximum penalties by Aug. 1, 2016.

A one-time “catch-up” increase could see OSHA’s maximum fines increase about 82 percent, which is the rise of the Consumer Price Index since the year OSHA penalties were last boosted in 1990. Starting in 2017, maximum penalties would keep pace with inflation.

State workplace safety and health agencies will likely be expected to follow the lead of federal OSHA and increase maximum penalties for violations.

“I suspect OSHA will take the position that states’ penalty authority be at least equal to [federal OSHA’s],” Michael Wood, chairman of the Occupational Safety and Health State Plan Association and administrator for Oregon OSHA, told Bloomberg BNA Nov. 6.

The expectation that the federal requirement for state plan rules be at least as effective as the rules of federal OSHA may result in the agency telling states to follow its lead.

So far, Wood said, federal OSHA hasn’t offered guidance to state plans on what the agency’s expectations are for the 28 jurisdictions.

The new law doesn’t mention state-administered occupational safety and health agencies. However, the expectation that the federal requirement for state plan rules be at least as effective as the rules of federal OSHA may result in the agency telling states to follow its lead.

If OSHA increased maximum penalties by 82 percent, the top fine for a repeat or willful violation would rise to \$127,438, up from \$70,000, while the limit for serious fines would grow from the current \$7,000 to \$12,744.

Wood said he hopes OSHA will treat the state plans as partners and work with them on how the fine increases will be implemented instead of issuing directives without input from the programs.

OSHA is expected to publish an interim final rule by July 1, 2016, to meet the mandated Aug. 1 effective date.

Source: BNA Occupational Safety & Health Daily (Nov. 12, 2015)

OSHA proposes updates to its Safety and Health Program Management Guidelines

Federal OSHA is proposing changes to its Safety and Health Program Management Guidelines – first published 26 years ago – and is asking you to comment on them.

OSHA's proposed changes to the guidelines build on lessons the agency learned from its Voluntary Protection Programs (VPP) and the Safety and Health Achievement Recognition Program (SHARP). The guidelines are also consistent with many national and international consensus standards.

The revised guidelines should be particularly helpful to owners of small- and medium-sized businesses. The document recognizes that finding and fixing hazards before they harm a worker is far more effective than fixing them after the worker is injured.

And for the first time, the guidelines address ways that employers at multi-employer sites can coordinate efforts to ensure that workers are protected.

The guidelines are advisory only and do not create any new legal obligations or alter existing obligations under OSHA standards or regulations.

The proposed changes to the guidelines include:

- A “proactive approach” to finding and abating hazards
- Recommendations suitable for all workplaces
- Help specifically for small- and medium-sized business owners
- Information addressing temporary workers
- A greater focus on employee participation
- Improved communication and coordination on multi-employer worksites

OSHA has made available a draft of the revised guidelines on its website, at www.osha.gov/shpmguidelines. The page also has a direct link to post comments, which will be accepted until Feb. 15.



Eliminating limited access in a confined space

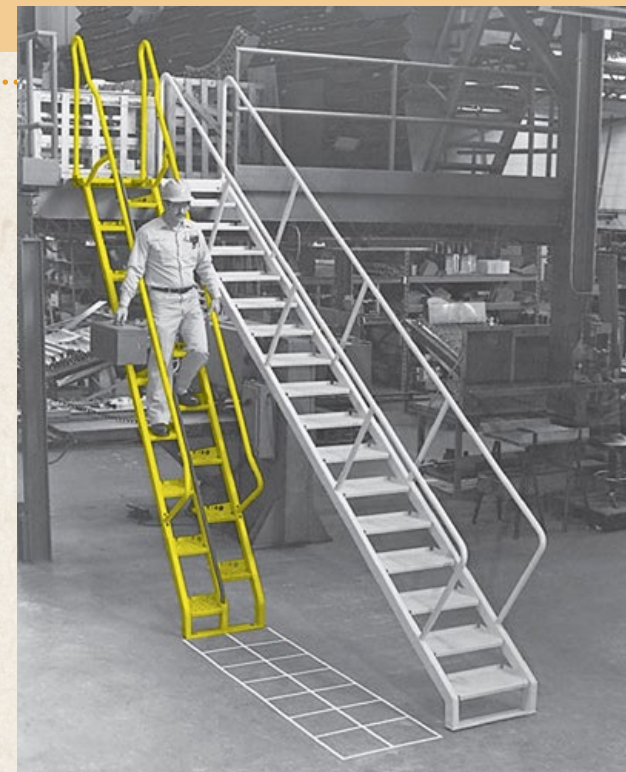
Confined spaces are not uncommon in workplaces and Oregon OSHA's consultants get many requests from employers to determine how they might be reconfigured. A confined space, by the way, is any space that is large enough to enter and perform work, not designed for continuous occupancy, and is difficult to enter and exit. Reconfiguring a confined space can make it safer for employees to enter; especially if the space has hazards that can be controlled.

Earlier this year, Senior Occupational Health Consultant Jeff Jackson received one such request from a steel foundry. The company wanted him to evaluate the entry to its confined space shake-out pit (a shake-out pit contains all the mechanical equipment necessary to remove the metal castings from the molds).

The shake-out pit met all of the criteria for a confined space, but the equipment was well guarded and could be locked out for maintenance work and there were no atmospheric hazards. It was a fixed ladder that made access to the space difficult.

Replacing the fixed ladder with a stairway would eliminate the confined space classification because the space would no longer be difficult to enter, but installing stairs required extensive concrete cutting and would be expensive. Then Jackson thought of another idea: "Why not put in ship's stairs? They're cheaper and easier to install," he told the employer. He did some research and discovered that OSHA does not regard ship's stairs as standard ladders, and there were no rules that prohibited their use in this case. Just to be sure, Jackson double-checked with Oregon OSHA Technical Specialist Dave McLaughlin who said that as long as the ship's stairs were not steeper than 70-degrees they could be used as a stairway, and the shake-out pit would not have to be classified as a confined space. However, it would still have to be considered a hazardous work location, and entry must be restricted only to employees who serviced the equipment.

Jackson also recommended laminating and posting specific energy control procedures at the entrance to the pit for locking out the equipment and for periodic audits of the energy control procedures.



Ship's stairs compared to standard stairs

Company officials later told Jackson that installing a ship's ladder was 75 percent cheaper than the cost of installing a standard stairway, and it eliminated the "limited access" problem to the shake-out pit.

Safety Notes

Sanitation worker loses four fingers removing potatoes from a cutting machine

How the accident happened

A sanitation worker's palm and four fingers on her right hand were amputated when she reached into the small, unguarded opening of a cutting machine to remove clogged potatoes.

The company's No. 2 processing line had been shut down for cleaning and Gabriela (not her real name), a sanitation worker, was spraying the equipment with a hose and cleaning it with a chemical rinse. The company mechanic had locked out the line's cutting machine and removed the machine's guard and knife blade. Gabriela had also locked out the machine's intake and the outtake augers. When she helped the mechanic lift up the lid on the intake auger, they discovered that it was clogged with potatoes.

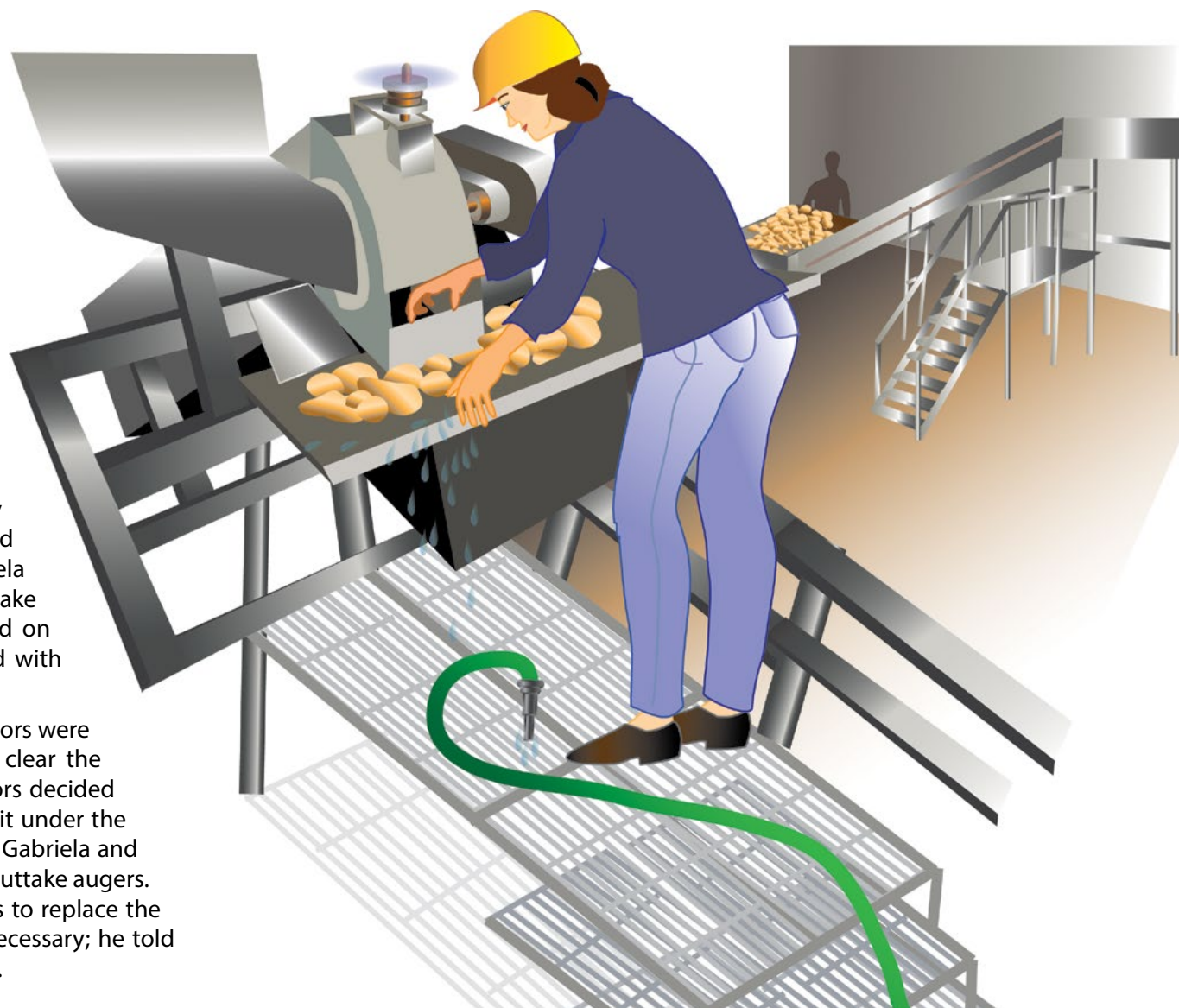
Another sanitation worker and two senior drum operators were working nearby. To help Gabriela and the mechanic clear the potatoes clogging the intake auger, the drum operators decided to remove a small lid on the outtake auger and place it under the cutter discharge chute, then restart the line. They told Gabriela and the mechanic to remove their locks on the intake and outtake augers. The other sanitation worker asked the drum operators to replace the cutter guard and lid, but one of them said it wasn't necessary; he told everyone to stay out of the area and he started the line.

Accident Report

Incident: Amputation

Industry: Food processing

Employee: Sanitation worker



As the clogged potatoes spilled out of the cutter onto the auger lid, one of the drum operators used a hose to wash them away. While they were waiting for the line to clear, Gabriela asked him if she could take over hosing the potatoes off the lid, and he gave her the hose.

Gabriela continued washing potatoes off the lid and, after about 10 minutes, she noticed that some were stuck inside a six-inch by three-inch opening that housed four three-inch by five-inch paddles spinning at 1,750 rpm. When she reached into the opening with her right hand to clear the potatoes, she touched the spinning paddles, which cut off four fingers and part of her palm.

Staff rushed to help when they heard her screaming and provided first aid until the emergency responders arrived.



The unguarded opening to the cutting machine.



Findings

- The company had a lockout/tagout policy for controlling hazardous energy; however, some employees involved in the incident said they did not follow all of the required steps to lock out and test the equipment. The company also did not have a procedure for controlling hazardous energy on the intake and outtake augers and the cutting machine.
- The workers involved in the accident had received training in controlling hazardous energy.
- Because the machines on the No. 2 line were interconnected, a single isolation point did not shut off the power to each one.
- Gabriela's injuries happened under conditions that changed a routine task to a nonroutine task. The senior drum operators told the mechanic and Gabriela to remove their locks and place the lid from the outtake auger over the chute below the cutter, and they restarted the line to remove the potatoes from the intake auger. The other workers said, "We never do it that way."

Violations

There were three serious violations involving the control of hazardous energy:

- 1910.147(c)(4)(ii), Energy control procedure: There were no machine-specific procedures for cleaning the intake and outtake augers and the cutter, which have their own independent isolation points.
- 1910.147(d)(6), Application of control: The mechanic said that he had not verified that the cutter was off after applying his lock. Gabriela and the other sanitation worker said they do not verify that the augers and the cutter are off after they apply their locks.
- 1910.147(e)(2)(i), Release from lockout or tagout: The work area was not checked to ensure that all employees were removed or safely positioned.



The cutting machine with the guard in place.

Ask Technical

In questions concerning healthful workplaces, the devil is often lurking in the details.

Q: Is an employer required to provide a chair for somebody who works at a desk? I know it sounds strange, but a friend of mine recently had her chair removed from her desk and is now required to stand while she is doing deskwork.

A: Oregon OSHA does not require employers to provide chairs for employees who work at desks. Employees have a right to a safe, healthful workplace – and neither standing nor sitting for long periods of time are healthful – but we do not know why the chair was removed. Has the company recently started a wellness program and temporarily removed desk chairs? For example, if this was part of a companywide effort to get employees to move about more during the workday that might be beneficial. Also, her desk would have to be adjusted properly for standing to ensure that she was able to work comfortably.



Workstations should be adjusted properly whether workers are sitting or standing.



Q: My employer recently replaced our overhead lighting with lights that are twice as bright as the previous ones. Now I am having eyestrain, headaches, nervous problems, and anxiety. I sit at my desk with tears streaming down my face and have missed more than two days of work this month. What can I do?

A: Office work is visually demanding and requires appropriate lighting for maximum comfort and productivity. Appropriate lighting, without glare or shadows, can also reduce eye fatigue and headaches. Your employer should have done a lighting survey to determine the proper intensity of the light and the quality of the light in your work area. The survey should also have asked employees if they were having eye fatigue, eye strain, and headaches such as the problems you are experiencing.

Unfortunately, we do not know why your employer replaced the lights. Oregon OSHA does have a rule that sets requirements for the “adequacy and effectiveness” of light at a workplace (see [437-002-0144, Additional Oregon Rules for General Environmental Controls](#)). For more information about conducting a lighting survey, see [Oregon OSHA Program Directive A-66, Lighting](#); though it was last revised some time ago, the information is still useful.

Going the Distance

What is your background and safety philosophy?

I began working at the age of 17 as a laborer and carpenter for my dad's construction company. Soon I was managing projects and eventually opened my own construction company. I entered the Environmental Health and Safety career-track 18 years ago. My career in safety began when I was first introduced to the philosophy of an Injury Free Environment (IFE) culture, which promotes collaboration and safety as a value, where no one should ever be at risk of an injury. The opportunity to take safety to a deeper level was something I couldn't pass up. About three years ago my wife and children became very concerned about my health and stress levels.

Company: Skanska USA Inc.

Environmental Health and Safety (EHS) Manager: David Douglas

Workforce: About 280 people

Common Hazards: Falls, overhead work, sprains, lacerations, hazardous energies, working around heavy equipment.



Photo: Ron Conrad

This caused me to take actions to improve my own health. I realized that my health choices were just as important to them as they were to me, so I began to research all I could about health and wellness, and how I could help others. I now strive to incorporate health and wellness programs into our safety culture, also involving our trade partners, to help find ways we can all promote a healthier and safer workforce.

My philosophy is simple: Everyone deserves to make a living without the risk of injury, and deserves to make it home safe each day. Additionally, everyone deserves to retire in good health so they can enjoy it.

Below: Crews meet at a “tailgate” meeting for safety discussions.

Photo: David Douglas, Skanska



“My philosophy is simple: Everyone deserves to make a living without the risk of injury, and deserves to make it home safe each day. Additionally everyone deserves to retire in good health so they can enjoy it.”

— David Douglas

What is your company's approach to wellness?

Wellness is supported from the top down. Prevention is the best way to obtain good health and wellness. It's similar to how eliminating a hazard is the best way to prevent an injury. With wellness, we look at ways to improve cardiovascular and general health. We promote tobacco cessation, regular physical activity, stress management, early screening, nutrition education, and more. Skanska has provided resources for many work groups and programs that educate and promote health and wellness. Those resources include health fairs, safety week, and national and regional wellness councils. Focusing on the health and wellness of our people has proven to increase productivity, create better morale, eliminate huge waste in healthcare costs, and reduce injuries. Over the years we have come a long way in getting people home from the job site safe, but it is also important to focus on their health and help them to retire healthy.

What results have you seen from your company's wellness program?

The number of people rethinking unhealthy choices is growing daily. For Skanska, EHS and human resources have partnered to help provide education and resources for health and wellness programs. We have great participation from our staff and trade partners. For several years now we have been doing morning stretching and exercise, and have encouraged ergo breaks throughout



Photo: Ron Conrad

Above: Sherry Drexler monitors her blood pressure at one of the health and wellness stations.

the day. Skanska has several workgroups that set up activities and trainings to promote health and wellness. We also use training sessions called “Lunch and Learns,” which are open to anyone who wants to participate. We also offer incentives, including providing discounts at health clubs and offering health screenings and education through health fairs. As a result, several people are getting help for heart disease, diabetes, and weight loss. For our catered meetings, we offer healthier food choices and water instead of soft drinks. We have also partnered with health professionals to promote health awareness.

Below: Certified Health Coaches Greg and Polly Malby (right) bring their “Take Shape for Life” program to Skanska during the company’s safety week for health and wellness.



Photo: David Douglas, Skanska

What are some of the unique safety challenges you face on current projects?

Aside from the typical construction hazards, some of the unique challenges we face include difficult access to elevated work areas where we have to design scaffolding with unique fall-protection plans for multiple crews; moving material into spaces that require special equipment to keep the crews from strains and sprains; and working around live systems requiring intricate lockout/tagout plans. We also have to watch out for impacts to facilities while working around live systems that could create other hazards for the crews. We also focus on developing project schedules that allow for proper planning and prep work. Also important are establishing proper staging areas where we have implemented LEAN principles for logistics and communication, keeping people up to speed on changes in the environment, and mitigating possible hazards before a project begins. All of that requires EHS involvement early on during the planning process.

“ For several years now we have been doing morning stretching and exercise, and have encouraged ergo breaks throughout the day.”

— David Douglas



Photo: Ron Conrad

How do you keep your crews engaged in safety issues day to day?

One of the keys is communication – not simply telling but also listening. We encourage crews to give input, to be included in the planning and development of our programs. This has been extremely successful as crews have ownership in the programs. The planning process is a collaborative effort that includes the general contractor, engineers, designers, owners, trade managers, and craft. Every person needs to know that they are a vital part of the team and that they are empowered to stop the work if they feel their



Photo: David Douglas, Skanska

Above: Nutrition specialists are available to speak with crews about their health.

safety, or the safety of a co-worker, is at risk. Before a project begins, all of the trades review and walk the work area to identify hazards. The team then comes up with solutions for mitigating hazards. We require crews to participate in pre-task planning for each project. On-the-spot recognitions are also important to encourage the crews to watch out for each other. The crews participate in open-discussion venues to come up with innovative ideas for ergonomics, safety, and efficiencies. When we have new people on a project, they buddy up with experienced personnel until they are familiar with the culture.

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

I would recommend they always continue to learn. Research, educate, and improve yourself so you can teach, equip, and inspire others. I would also say to get involved and show you care. Build relationships and partner with your clients, managers, and coworkers to understand what their needs are. A great way to do that is to focus on their health and wellness in your overall safety plan. ■



Photo: Ron Conrad

“When we have new people on a project, they buddy up with experienced personnel until they are familiar with the culture.”

— David Douglas