CONTENTS

Administrator’s message 3
A sobering reality — death on the job

Forklift dangers 4
Warehouse focuses on positive safety behavior

Training and educating forklift operators 7
Is practical experience safe enough?

Safety tips for forklift operators and pedestrians 9
An interactive illustration

Safety Notes 10
A worker is struck by a forklift that rolled backwards

News Briefs 12
Oregon OSHA announces 2013 workplace death totals

Ask Technical 16
How often do you need to inspect forklifts?

Going the Distance 17
The safety manager and training officer at Sandy Fire District shares his philosophy

Conference Update 21
Mark your calendar for upcoming OSHA events

On the cover: Sysco Portland, a food service warehouse, operates 24 forklifts during peak times.

RESOURCE

Oregon Health and Safety Resource
is published every other month by the Oregon Occupational Safety and Health Division of the Department of Consumer and Business Services.

Reprinting, excerpting, or plagiarizing any part of this publication is fine with us. Please send us a copy of your publication or inform the Resource editor as a courtesy.

If you have questions about the information in Resource, please call 503-378-3272.

For general information, technical answers, or information about Oregon OSHA services, please call 503-378-3272 or toll-free within Oregon, 800-922-2689.

If you want to continue to receive the Resource newsletter, sign up for future issues at www.orosha.org.
A sobering reality –
death on the job

By Michael Wood

Several weeks ago, we here at the Oregon Department of Consumer and Business Services released the fatality numbers for 2013. Later this month, I will be speaking in memory of all those Oregon workers.

From the bird’s eye view, the news is good. The overall trend in compensable fatalities in Oregon continues to be down, and we certainly show no signs of losing the ground we have fought to gain over the past two or three decades. From the Oregon OSHA perspective, it is worth noting that several of last year’s fatalities actually happened outside the state (and even the country), but were covered by Oregon workers’ compensation and, therefore, are included in the totals.

So, from the bird’s eye view, the picture is encouraging, but I can never be satisfied with that encouraging picture.

The reality is that each of those deaths is a tragedy. An individual lost to family and friends. A person whose dreams and hopes for the future have been cut short. And that tragedy is no less real for those involved if the death is one of 100 or one of 30 or one of 10. Statistics and declining fatality rates are cold comfort when your loved one left for work one day and never returned. That’s the reality – and it is a reality that far too many people still face.

When I look at the fatality reports that cross my desk, and particularly when I look at the fatality investigations, I get frustrated. I get angry. And when I look at the inspections where no one was killed but only because of blind luck, I get even angrier. We collectively accept risks that we need not accept. And that is why workers die.

When no one dies at a particular place and time, we too often want to take credit, even if there is no credit to be had. And when a workplace tragedy strikes, we too often want to shrug it off as an unfortunate series of events. We may even see it called a “freak accident” in the news media. But the deaths in Oregon’s workplaces are not freak accidents. They are not unpredictable and they are not unpreventable.

What is missing when it comes to achieving the next real reduction in the death rates? I fear, in part, it is a lack of will. It is a belief that we are “pretty good” at dealing with workplace risks and it is a belief that “pretty good” is good enough. As we approach Worker Memorial Day again this year, I ask you to join me in declaring that we can do better.

We can celebrate our successes, but we must never rest upon them as though we have done all that we can do. We have not done what we can or what we should. While we fool ourselves, our friends, our neighbors, and our family members – someone will die. And we will shake our heads. We will wonder what can be done.

The rallying cry for Worker Memorial Day each year is to mourn the dead and fight for the living. Perhaps we need to mourn a bit less – but fight a good bit harder.
In the Sysco Portland warehouse, 24 forklifts travel down aisles and around corners, carrying pallets of everything from restaurant take-out boxes to locally sourced pears, canned goods, and organic meat. At peak times, some 35 truck drivers, off loaders, receivers, and supervisors may be working to move product in the 400,000 square-foot warehouse. The company has had only two forklift incidents in the past 13 years.

“When I took over the safety program, we started reinforcing positive behavior,” said John Fraser, Sysco Portland’s director of human resources and safety. “It’s so easy to say, “You aren’t doing this or doing that.” But by reinforcing the proper safety behaviors, we created a culture where people behave safely all the time.”
Fraser said after a thorough analysis of safety-related incidents and accidents, company managers developed 10 core safety behaviors they use to reinforce safety in the warehouse. Some of the items include keeping all body parts within the confines of the forklift, sounding the horn before making turns, and looking in the direction of travel. Workers must sign off on the protocols with their commitment to use them “100 percent of the time.”

Fraser says Sysco also uses a reward system to keep safety at the forefront of its daily operations. At least once each quarter, supervisors evaluate forklift drivers on their behavior.

“Our supervisors will watch the operator unannounced,” said Fraser. “When they are observed carrying out those 10 core behaviors, they are rewarded with T-shirts, gift certificates, a lunch box, or other items.”

Fraser said the program is making a big difference on the company’s bottom line.

“I spend $15,000 a year on safety T-shirts and giveaways, but we’re saving hundreds of thousands a year by reducing injuries and the medical and time loss costs of injuries,” he said.
Sysco employees often aren’t shy about offering ideas for safety improvements either. About six weeks ago, an employee suggested adding new striping on the warehouse floor to create a three-foot buffer zone between dock activity and forklift traffic.

“Even though the employee thought the previous set-up was safe, the extra space would ensure even more protection during busy warehouse hours,” said Fraser, who implemented the changes.

Sysco also takes progressive discipline against employees who engage in unsafe actions. In fact, Fraser said anyone who fails to report incidents or accidents is terminated.

“It is a mortal sin in our company,” he said. In 2009, the company started using new software for tracking forklift operator certifications and the quarterly behavioral observations. The changes have made Sysco Portland a standout nationwide. In 2011, the local warehouse had the best safety performance out of Sysco’s 172 locations.

“Reinforcing positive behavior has been key in helping us achieve results,” said Fraser.
Training and educating forklift operators

By Craig Hamelund, Oregon OSHA training specialist

Many forklift operators have learned their jobs exclusively through practical experience. Is practical experience safe enough?

Forklift operators must have classroom instruction, hands-on training, and an evaluation to determine their competency. The evaluation must take place in the workplace so the trainer can observe the operator performing typical tasks in the operator’s environment. Someone other than the employer can do the training and the evaluation; however, training out of the workplace must be supplemented with on-site training that covers site-specific hazards and tasks the operator will be performing.

The employer must certify that each operator has been trained and evaluated. The certification must include the operator’s name, the trainer’s name, and the training and evaluation dates.

Train with education in mind

How do you train to educate?
Here are two examples.

If a forklift operator is caught speeding where speed is restricted, he may be disciplined and required to watch a video on forklift safety – perhaps one that he has seen before. Find out why the operator was driving too fast – were there production pressures, was it a lack of enforcement, or no training? Ask him what he thinks a safe speed should be – and why. Show him that a safe, controlled speed is the best practice because the risk of an injury or a crash is reduced. Ask him to help revise or develop new forklift policies when they are necessary.

Consider a forklift operator driving with a load raised too high, causing the forklift to become unstable. Some employers might simply warn her and tell her to keep the load low “because OSHA requires it.” Instead, ask her if she knew that overturns are a major cause of death and serious injury involving forklift operators.

Forklift operators must be re-evaluated at least once every three years and have refresher training when they are not operating their forklifts safely, after a near-miss, when they use another type of forklift, or where there is a change in the workplace that could affect the safe operation of the forklift. (Agricultural employees must have refresher training at least annually.)

Continued on page 8
Why do forklifts overturn?
Forklift stability consists of four things: the fulcrum point, the center of gravity, the stability triangle, and load center. As a child, you probably played on a teeter-totter, which is basically a plank balanced on a fulcrum. On a forklift, the fulcrum point is the front axle and the load is balanced by the weight of the forklift’s counterweight and battery (if electric).

A forklift’s center of gravity is the point at which all of the weight of the forklift is concentrated and a new center of gravity is created with every load. Imagine you’re riding a tricycle – think of it as a triangle on wheels. If you pedal around a corner and shift your center of gravity forward over the front wheel, you’ll tip over. If you shift your center of gravity over the rear wheels, you are less likely to tip over.

A forklift’s front axle serves as a fulcrum, balancing the forklift and the load.

Visualize a triangle with its base at the fulcrum point (the front axle) and its apex at the center of the rear axle (the pivot point of a rear-steering axle or the steer wheel on a three-wheel forklift). The combined center of gravity (imagine a single moving object) must stay within this triangle for the lift truck to be stable.

The most stable area for handling a load is close to the front axle, or fulcrum point. If the combined center of gravity moves forward of the fulcrum point, the truck becomes unstable and tips forward.

Factors that cause a forklift to tip forward are:
• Sloping surfaces
• Overloading
• Inappropriate use of attachments
• Traveling down ramps with the load forward
• Heavy braking
• Moving with an elevated mast
• Forward-tilting elevated mast
• Shifting or off-center loads

If the combined center of gravity moves outside of the stability triangle, the forklift tends to tip sideways.

Factors that cause a forklift to tip sideways are:
• Excessive speed while turning
• Turning with an elevated mast
• Sloping surfaces
• Slick surfaces
• Uneven terrain
• Tight turns
• Shifting or off-center loads
• Turning sideways on ramps

Remember that seatbelts keep the operator in the cab during a tip over. Operators must use them when they are exposed to a tip over hazard or are traveling where they could be thrown from their seat.

Don’t overlook rated capacity
All forklifts have a rated capacity – most are rated at a 24-inch load center, which is the center of standard 48-inch-long forks. The rated capacity drops as you move a load out from load center. As a rule of thumb, for every inch you move a load forward from load center, the capacity of the forklift will drop a few hundred pounds.

Front-end attachments, including fork extensions, can also reduce the capacity of a forklift. If you are using front-end attachments, know the de-rated capacity of the forklift with the attachment and mark the forklift accordingly. Remember that the manufacturer must approve in writing any modifications or additions that affect capacity or safe operation of a forklift.
Safety tips for forklift operators and pedestrians
After unloading a pallet of covers from a customer’s van, the worker drove his forklift up a ramp back into the warehouse. He parked the forklift on level ground but the rear wheels were still on the ramp – and he may not have completely engaged the emergency brake when he parked it. He got out of the forklift and walked down the ramp toward the receiving bay door to close it when the forklift struck him from behind. He fell and the forklift dragged him down the ramp, pinning his legs under the left rear wheel.

A co-worker who heard his screams told workers to call 911. Another worker drove the forklift off his legs and comforted him until EMTs arrived and took him to a hospital.

Continued on page 11
SAFETY NOTES – Continued

These photos were taken at the scene during a re-enactment of the incident. The worker had not been trained to operate that particular forklift, which had a history of a faulty emergency brake. Photos show the ramp where the accident happened, the forklift, and the left rear wheel that trapped the worker’s leg.

Applicable standards

1910.178(1)(2(ii), Training program implementation – Training did not consist of formal instruction, practical training, and an evaluation of the operator’s performance in the workplace.

1910.178(q)(7), Maintenance of industrial trucks – Forklifts were not examined before they were put in service.
Oregon announces 2013 workplace deaths

Twenty-nine people covered by the Oregon workers’ compensation system died on the job during 2013. It’s a slight decrease from 2012’s figure of 30 deaths and continues a downward trend seen in recent years.

The year 2010 marked the state’s all-time low of 17 deaths. That figure was likely tied, in part, to the economic downturn. In 2011, there were 28 deaths and, in 2009, 31 people died on the job.

Construction saw the largest concentration of deaths in 2013, with seven workers killed in that industry. Logging resulted in six deaths. The construction industry also accounted for a significant number of deaths in 2012 (five total), illustrating the high hazard nature of the work.

"Each workplace death illustrates the need to continue our commitment to preventing these tragedies," said Patrick Allen, director of the Department of Consumer and Business Services (DCBS). “Although workplace safety in Oregon has improved significantly in recent decades, there is still much we can do to ensure all of our workers can come home to their families at the end of the day.”

On-the-job injuries have been on the decline in recent decades. In the 1990s, there was an average of 55 workplace deaths per year. In the 1980s, the average was 81 deaths. The statewide rate of reported workplace injuries and illnesses has also decreased more than 50 percent since the late 1980s. Oregon started tracking workplace deaths in 1943.

“While this report tends to confirm an overall downward trend in Oregon worker deaths, it also confirms what we know all too well,” said Michael Wood, administrator of Oregon OSHA, a division of DCBS. “Too many workers die on the job in Oregon and those deaths can be prevented.”

DCBS compiles fatality statistics from records of death claim benefits paid by Oregon workers’ compensation insurers during the calendar year. The data reported may exclude workplace fatalities involving self-employed individuals, city of Portland police and fire employees, federal employees, and incidents occurring in Oregon to individuals with out-of-state employers. These workers are either not subject to Oregon workers’ compensation coverage requirements or are covered by other compensation systems.

Deaths that occur during a prior calendar year may appear in the compensable fatality count for a later year because of the time required to process a claim.

The link to the full DCBS fatality report can be found here: http://www.cbs.state.or.us/imd/rasums/ra_pdf/wc/fatal/annual_rpt_13.pdf
Oregon OSHA fines WildCat Haven for safety violations following worker’s death

Oregon OSHA has fined WildCat Haven $5,600 for safety and health violations after an animal keeper was attacked and killed at the Sherwood sanctuary. The sanctuary violated its two-person safety procedure and cage latches did not fully secure dangerous cougars, Oregon OSHA found.

“Sadly, as is so often the case, this workplace tragedy may have been prevented if the employer had followed and enforced its own guidelines when employees entered the cougar enclosures,” said Michael Wood, Oregon OSHA administrator.

Renee Radziwon Chapman was attempting to clean one of the cages at the sanctuary when one or more cougars attacked her on Nov. 9, 2013. The victim was working alone at the facility.

Oregon OSHA cited WildCat Haven for two serious violations, each with a penalty of $2,800. The investigation found the sanctuary violated its two-person safety procedure by allowing keepers to work alone on a frequent basis.

The second violation identified an inadequate latch design on the cougar cages. If the locks were not fully closed, they could inadvertently pop open. In order to fully secure the latch, keepers were required to enter the cage and attach a carabiner onto the latch’s lock fitting. The enclosure itself was also poorly designed with no separate entry door. As a result, cougars in two separate chambers needed to be secured in order to safely enter.

Blue Star award nominations being accepted

Nominations are being accepted for the Oregon SHARP Alliance Blue Star award, which recognizes individuals for their outstanding dedication and leadership to workplace safety and health in Oregon. The award is presented in June at the Blue Mountain Safety and Health Conference and the recipient does not have to be a member of the Oregon SHARP Alliance.

Nominations for the award must be submitted by April 30, 2014, and applications are available at www.sharpalliance.org.

Nominations are being accepted for the Oregon SHARP Alliance Blue Star award, which recognizes individuals for their outstanding dedication and leadership to workplace safety and health in Oregon. The award is presented in June at the Blue Mountain Safety and Health Conference and the recipient does not have to be a member of the Oregon SHARP Alliance.

Nominations for the award must be submitted by April 30, 2014, and applications are available at www.sharpalliance.org.
Finalists named in young worker safety video contest

Stories told through rap, humor, and other creative moviemaking are among the top videos in the Oregon Young Employee Safety Coalition (O[yes]) video contest. The top seven finalists are now posted on YouTube (click on 2014 video submissions): www.youtube.com/user/OregonSafetyHealth

The finalists are:

- “Flashbacks” – St. Helens High School
- “The Work Safe Rap” – South Salem High School
- “Wisdom” – South Salem High School
- “The Inspector” – Salem Academy
- “Safe or Not Safe” – Oregon School for the Deaf, Salem
- “Safety is the Last Thing on my Mind” – Southridge High School, Beaverton
- “Work Safe” – North Bend High School

The top three entries will take home cash prizes ranging from $300 to $500 and will earn a matching amount for their school. O[yes] hosts this annual contest, which is sponsored by Oregon OSHA, SAIF Corporation, local Oregon chapters of the American Society of Safety Engineers, the Oregon Institute of Occupational Health Sciences at Oregon Health & Science University, the SHARP Alliance, Liberty Mutual, the Central Oregon Safety and Health Association, the SafeBuild Alliance, Oregon Health Authority, Hoffman Construction, and the Portland Daily Journal of Commerce.

The contest, open to all high school students in Oregon, is designed to increase awareness about safety on the job for young people with the theme “Speak up. Work safe.” and the tagline “Work shouldn’t cost you your future.” Students were tasked with creating a 90-second video based on the concept of speaking up about hazards at work. The videos were judged on creativity, originality, youth appeal, production quality, and message.

Contest winners will be unveiled at a Saturday, April 26, 2014, screening event at Northern Lights Theatre in Salem starting at noon.

For contest information, go to http://youngemployeesafety.org/contest.
Oregon OSHA, other agency leaders honored as part of SAIF Corporation’s ‘100 Faces of Change’ exhibit

Oregon OSHA will be among the honorees of SAIF Corporation’s “100 Faces of Change” exhibit, open now at the Oregon Historical Society in Portland. The interactive exhibit includes 100 stories of those who have influenced or benefitted from Oregon’s workers’ compensation system.

Oregon OSHA Administrator Michael Wood, Jennifer Flood, the Ombudsman for Injured Workers; and Austin Coburn, the 2013 winner of the statewide young worker safety video contest; will also be featured.

The State Industrial Accident Commission (SIAC), the precursor of SAIF Corporation, opened its doors in 1914. That event made official the Workmen’s Compensation Act, proposed by Gov. Oswald West and passed by Oregon voters in 1913. The exhibit not only showcases individual stories and photos, but also includes photos and artifacts from Oregon industries that played a part in making workplaces safer.

Q:
Our company continuously operates forklifts over four shifts each day. How many times do we need to examine them for safety issues?

A:
If a forklift is used every shift, it needs to be examined by an operator or a designated inspector four times each day. OSHA’s forklift standard (1910.178) requires forklifts used “round-the-clock” to be examined after each shift; the forklift operator on the incoming shift can do the exam. This helps the operator because he can identify any unreported mechanical issues or damage that might have happened during the previous shift.

At a minimum, the operator or inspector should do a vehicle walkaround and visually examine tires and wheels, hoist chains, data plate, and the general overall condition of the forklift and any lifting attachment. After starting the forklift, the operator should check the steering, service brake, park brake, horn, and hydraulic controls to ensure they are working properly.

It’s not necessary to keep a record of the examination.
Company: Sandy Fire District
Safety manager/Training officer: Jason McKinnon
Workforce: 9 career, 4 office staff, 60+ volunteers
Common Hazards: Sprains and strains, back injuries from lifting in difficult positions and places, bloodborne pathogens, falls, driving hazards

What is your background and safety philosophy?
I am the captain and training officer at the Sandy Fire District. I have been in the fire service for 21 years (seven as volunteer and 14 as career). My current responsibilities include assisting the deputy chief in daily operations/assignments, safety and emergency/fire suppression activities of the fire district. I am also charged with safety training, supervising staff, and other non-emergency work.

I started my background in safety when I took my first incident safety officer class titled “Firefighter Safety and Survival.” I then took two more classes related to safety and the role of the incident manager. My training priority is to promote public safety through the development of professional standards and the delivery of quality training.

Continued on page 18
Everything seems to tie into safety somehow. In my experience, when something goes wrong or something needs to change, safety has the most common approach for accomplishing the task. I find this challenging and intriguing. I was told at an early point in my career that safety and anything involved with safety was the wave of the future.

What are some of the unique safety challenges your crews face?

If the first arriving officer taking command of a scene does not designate someone as the safety officer, then that individual retains that position during the entire incident. Safety is always our No. 1 priority. It is always my safety and my crew’s safety first. We have to remember that we were called to help and we need to be part of the solution and not add to the problem.

We always face unique challenges on incidents, though extrication seems to be one of the most challenging to deal with from a safety perspective. Extrication requires a constant evaluation of hazards from the accident, a re-evaluation of the efforts of cutting a vehicle and removing people from it.

Structure fires would be the next most challenging because, in most cases, homes were not designed to have fires in them. It is required of all members to understand fire prevention methods, building construction, fire behavior, and how all of these factors affect safety.

Continued on page 19
Being a more rural fire department, do you respond to wildland fires? If so, what are some differences in ensuring safety of your crew compared to structure fires?

We do respond to wildland/brush fires and safety concerns on these vary depending on locations, smoke, heat, and fatigue. Locations can range from hilly areas with steep terrain to heavy brush and wooded areas. This is a prime issue in dealing with sprains and strains from tripping over the terrain or walking up steep hills. Dealing with the smoke from these fires can cause respiratory and visibility issues for all responders and workers. Fatigue becomes a factor when we have long periods of operations due to a bigger incident such as a conflagration.

We address these unique hazards during morning or evening briefings by the command and general staff pointing out safety concerns and hazards that have been observed by crews out working. Safe and effective initial response to wildland fires requires basic training in wildland firefighting. Wildland firefighting skills training is managed by state and local agencies, which often use or adapt courses developed by the National Wildfire Coordinating Group (NWCG).

Continued on page 20
GOING THE DISTANCE  - Continued

Top Left: Firefighters train for different scenarios in full gear throughout the year.
Top Right: McKinnon says safety is a key part of their culture.
Below: Driving hazards and medical calls present safety challenges beyond a fire scene.

How do you keep your firefighters engaged in safety day to day?

During an incident, the incident commander has the ultimate responsibility and authority over operations, including the safety of crews responding. On larger, more complex incidents, the responsibility of safety can be so broad that it prevents the incident commander from managing and commanding the remaining operations effectively. When this occurs, the incident commander may delegate the safety officer responsibilities and authority to a mid-level officer or firefighter. Regardless of the incident, the role of the safety officer should be defined in a department’s standard operating procedures.

NFPA 1521, Standard for Fire Department Safety Officer, outlines the role of the incident safety officer and is a good reference to consider when preparing procedures for a department. We teach all firefighters the importance of safety at the beginning of every firefighter academy and continue with the safety message throughout all of our training and real life incidents. Safety is part of the culture.

In our everyday operations, we have a safety committee that reviews all safety concerns that happen in the station and on incidents. This committee reviews accidents and makes recommendations to improve safety issues that may arise.

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

Statistically, more firefighters are injured and killed while operating on the scene of emergency incidents than any other setting. Using an incident safety officer will significantly reduce the potential for injury and death. I believe if accidents and safety issues are predictable, then they are always preventable. Everyone is always a safety officer, even if they aren’t appointed to the safety officer position. I am also always responsible for my safety and the safety of my crews. I never forget that everyone goes home.
May 2014

Join us! This summit is designed for all industries and worksites, even if they are not in the Voluntary Protection Program (VPP). All safety managers/ coordinators and safety committee members will benefit from this world-class workplace safety training and networking.

Tuesday, May 13
Pre-conference workshops on continuous improvement, leadership, communication, wellness, and soft tissue injury prevention; including the VPP Application Workshop™.
– Plus, special off-site workshop on Aviation Safety.

Wednesday and Thursday, May 14 & 15
Tracks:
• Best practices in safety and health
• Emergency preparedness
• Safety leadership

• Technical
• Wellness
• VPP fundamentals
• Safety Trained Supervisor series

Register now! www.regonline.com/regionx_vpppa14

June 2014

8th Annual
Blue Mountain Occupational Safety & Health Conference
Tuesday, June 3, 2014
Pendleton Convention Center • Pendleton, Oregon

Keynote: Safety Beyond PPE by Kina Repp

Exhibits featuring the latest in safety and health products and services
Attend the SHARP Alliance quarterly training June 2nd
Learn more at www.sharpalliance.org

The 8th annual event focuses on helping organizations (no matter the company size or industry) strengthen their safety culture. Some of the topics featured include:
• Confined Space
• Accident/Incident Investigation
• Electrical Safety for the Non-Electrician
• Mobile Equipment and Pedestrian Safety
• Controlling Hazardous Energy
• Hazard Identification
• Unwind Your Organizational Stressors
• Leading the Way for Safety
• Coaching Safety Leaders

Registration is $60 per person (includes lunch)

Register now! www.regonline.com/blue_mountain14

This event is a joint effort of the Oregon SHARP Alliance, Oregon OSHA, and employers/employees from Northeast Oregon.