

# Workplace Safety Advisor

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- NIOSH Current Intelligence Bulletin 67: Promoting Health and Preventing Disease and Injury Through Workplace Tobacco Policies - 4/2/15
- Communication tower safety; OSHA request for information (RFI) - 4/15/15

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## OSHC tosses machine guarding violation, says "possible" exposure not enough

The Occupational Safety and Health Review Commission (OSHC) recently vacated a citation issued to a company for failure to guard exposed shafting that was seven feet or less from the floor.

In the case, the company did not ensure that exposed rotating shafts were guarded on two pieces of machinery in a refinery—an air fan and a cooling tower pump motor.

The company contends that, although the shafting was unguarded, there was no actual or potential exposure to the hazard—an element that is required for OSHA to issue a violation.

See *Exposure*, page 2

## What's New?



## FY14 OSHA enforcement at-a-glance

- # inspections conducted – 36,165
- # programmed inspections – 19,198
- # complaint inspections – 9,568
- # total violations – 67,234
- # serious violations – 48,951
- # repeat violations – 2,922
- # willful violations – 425
- The total penalty dollar amount for all violations:
  - Issued = \$200,735,400
  - Current = \$139,636,940
- The total current penalty dollar amount for serious violations – \$94,644,473

*Exposure, from page 1*

OSHA argued that the “exposure” element of the case was met by showing that it was reasonably predictable employees would be in the zone of danger created by the fan and motor—basically, by saying that employees had access to the violative condition.

OSHC sided with the company, saying that for there to be potential exposure it must be reasonably predictable either by operational necessity or otherwise (including inadvertence) for employees to be in the zone of danger.

To meet this burden, OSHA must do more than show that it may be physically possible

for an employee to come into contact with the unguarded machinery in question.

Rather, OSHA must establish that employees are exposed to a hazard as a result of the manner in which the machine functions and the way it is operated.

As the company contended, OSHRC said the record failed to establish its employees were exposed to the unguarded rotating shafts. There was no evidence that any employees were stationed at or near either piece of machinery. In fact, OSHRC noted, one employee testified that no one worked at the fan or pump motor and no one had any duties near these machines.

Additionally, the only other testimony regarding employee exposure to the zone of danger created by the unguarded fan and pump motor was mere speculation related to how an employee “could” get close to it.

OSHRC said that although OSHA showed that it was “physically possible for an employee to come into contact with” the cited machinery, this is insufficient to establish employee exposure.

**Note:** As of press time, it was unclear whether OSHA would appeal the decision.

For more information, see [www.oshrc.gov/decisions/pdf\\_2015/08-1386.pdf](http://www.oshrc.gov/decisions/pdf_2015/08-1386.pdf). ♦

## Nursing home National Emphasis Program expired

OSHA alerted regional offices to the expiration of the OSHA Instruction CPL 03-00-016, National Emphasis Program (NEP) on Nursing and Residential Care Facilities, effective April 5, 2015.

This NEP instructs OSHA field inspectors to complete all programmed inspections on their existing lists. Additionally, if an area office initiates an unprogrammed inspection, such as in response to a complaint or

referral, and the NEP criteria are met, then the office shall continue following the inspection procedures and coding instructions in the NEP.



As outlined in the NEP, the OSHA Data Initiative (ODI), a nationwide collection of establishment-specific injury and illness data from approximately 80,000 establishments, served as the source of the specific establishments that were selected for inspection under the Nursing Home NEP. Because the agency has suspended the ODI, there are no additional targeting lists available for this NEP. However,

data from the Bureau of Labor Statistics suggests that the healthcare industry continues to report injury and illness rates that exceed the national average. In an effort to reduce

the high injury rates in the healthcare industry, OSHA will continue to use both enforcement and collaborative efforts to address hazards such as musculoskeletal disorders from lifting patients or residents, exposures to tuberculosis, bloodborne pathogens, workplace violence, and slips, trips, and falls.

OSHA states it intends to issue updated guidance that instructs OSHA offices to allocate enforcement and other resources to additional inpatient healthcare facilities, such as nursing homes and hospitals that have occupational illness and injury rates above the industry average.

The procedures outlined in the expired NEP will remain in effect until replaced by updated guidance or removed by the agency. ♦



## Cal/OSHA amends heat safety regulations

The California Department of Industrial Relations, in conjunction with Cal/OSHA, announced amendments to the state's current heat illness prevention regulation. The Occupational Safety and Health Standards Board's proposed amendments to the California Code of Regulations, Title 8 §3395, were approved by the Office of Administrative Law on April 3. The changes became effective May 1, 2015.

A guidance document for employers and employees on these new requirements, as well as an updated Heat Illness Prevention Enforcement Q&A section are now available on Cal/OSHA's website.

The revisions in the heat illness prevention regulation include the following:

- Water must be pure, suitably cool, and provided free to workers. It must be located as close as practicable to where employees are working so they can hydrate frequently during their shift.
- When temperatures exceed 80 degrees Fahrenheit, shade is required for all workers on break, and for all those who take their meal periods onsite. For climates cooler than 80 degrees, shade must still be made available upon request.
- Workers who take cool-down rest breaks must be monitored and asked if they are experiencing heat illness symptoms.



- High-heat procedures have been modified for the agriculture industry to mandate one 10-minute preventative cool-down rest break every two hours when temperatures equal or exceed 95 degrees Fahrenheit.
- Employers must ensure that supervisors and workers are adequately trained to recognize and react to heat illness signs or symptoms and how to contact emergency medical services (EMS).
- Any workers who display or report any signs or symptoms of heat illness, must not be left alone or sent home without being offered on-site first aid or emergency medical services.
- All workers must be closely observed during a heat wave.
- Any worker newly assigned to a high-heat area must be observed by a supervisor or designee during the first 14 days of employment.
- Training must be provided for all outdoor workers before starting any work involving heat illness risk. The training must be presented in a language that employees understand, and must be documented.

With unusually high temperatures predicted for summer 2015, Cal/OSHA urged employers with outdoor workers to prepare for high heat now. Preparation is essential to prevent heat illness which can include headaches, fatigue, excessive sweating, and muscle cramps in the early stages, and can rapidly progress to mental confusion, vomiting, fainting, seizures, and death. ♦

## Confined spaces in construction: Final rule published

While general industry has had an OSHA Permit-Required Confined Spaces Standard for over 20 years at 29 CFR 1910.146, construction work has not had the same protections. However, on May 4, 2015, OSHA's Confined Spaces in Construction final rule was published in the *Federal Register*.

The final rule is similar to the current General Industry rule, though there are some key differences, including more detailed provisions on multi-employer worksites. The rule also requires a competent

person to evaluate the work site and identify confined spaces.

In addition, the rule requires continuous atmospheric monitoring whenever possible, and continuous monitoring of engulfment hazards.

The rule also clarifies General Industry requirements.

For more information, visit [www.osha.gov/confinedspaces/index.html](http://www.osha.gov/confinedspaces/index.html) ♦



## High prevalence of carpal tunnel syndrome among poultry workers

In 2014, the National Institute for Occupational Safety and Health (NIOSH) was asked to perform a Health Hazard Evaluation at a poultry processing plant in Maryland.

NIOSH evaluated all employees working in receiving, picking, and evisceration at the

plant and randomly selected a sample of employees from the debone direct and thigh line departments to participate in the assessment. Researchers found that 59% of the jobs evaluated, including all jobs in evisceration, involved levels of hand repetition and force over the American Conference

of Governmental Industrial Hygienists' (ACGIH) action limit. These conditions put workers at increased risk for carpal tunnel syndrome and other MSDs. Jobs involving repetition and force at or above the action limit should be redesigned or use automation or other engineering (and/or administrative) controls to prevent MSDs.

NIOSH researchers found that 76% of tested employees had abnormal results from a nerve conduction test while 34% had evidence of carpal tunnel syndrome. To meet the case definition of carpal tunnel syndrome, employees had to meet all of the following criteria: 1) pain, numbness, burning, tingling in the hands or wrists, occurring more than three times or





lasting 7 days or longer in the past 12 months, 2) marked or shaded the location of their symptoms in the median nerve distribution area on a hand symptom diagram, and 3) had abnormal median nerve conduction in the affected hand or wrist. The high prevalence of carpal tunnel syndrome at this plant is not surprising given the literature on the topic as well as past NIOSH HHEs in poultry processing showing a link between carpal tunnel syndrome and levels of exposure to hand repetition and force above recommended limits.

Additionally, NIOSH reviewed the OSHA logs for 2010-2013. The plant's rate of OSHA recordable work-related injuries and illnesses was above the Bureau of Labor Statistics' poultry processing industry average for 2010 and 2011. Sprain, strain, pain, soreness, inflammation, or repetitive motion entries were the most common OSHA recordable injury at the plant in 2010, 2011, and 2013.

NIOSH recommended that the poultry processing company act to reduce the risk of carpal tunnel syndrome and other MSDs. Key recommendations for employers and employees follow.

### What the employer can do

- Implement the 2013 OSHA Guidelines for Poultry Processing and recommendations from poultry industry groups.
- Design job tasks so that levels of hand activity and force are below the action limit of the ACGIH.
- Reduce cone line speeds and use additional cone lines so job tasks are below the action limit of the ACGIH.
- Implement a rotation schedule to reduce stress to specific sets of muscles and tendons.
- Ensure that the knife change-out schedule is strictly followed.
- Provide more breaks during the work shift.
- Implement a standard process to evaluate employee symptoms. Provide appropriate treatment, work restrictions, and medical referrals.

### What employees can do

- Report symptoms and injuries promptly to supervisors and onsite medical staff.



- Use only sharp knives for cutting. Keep knives sharp by using mousetraps frequently and changing knives on a regular basis.
- Adjust the standing platforms to the correct height for the task.

The NIOSH results underscore the need for ergonomic interventions and improvement of work processes and medical evaluation. Early recognition of, reporting of, and intervention in MSDs can limit injury severity, improve the effectiveness of treatment, minimize the likelihood of a disability or permanent damage, and reduce the rate of workers' compensation claims.



## Oregon OSHA adopts modified version of Fed OSHA injury reporting change

Oregon OSHA recently adopted Federal OSHA's changes to the injury/illness reporting requirements.

While the rule is essentially the same as Federal OSHA's,

Oregon did clear up confusion about when to report amputations versus avulsions. In Oregon OSHA's version of the rule, employers are required to report amputations *and*

avulsions that include bone or cartilage loss. (Federal OSHA does not require reporting of avulsions.) ♦

## OSHA published three new whistleblower fact sheets

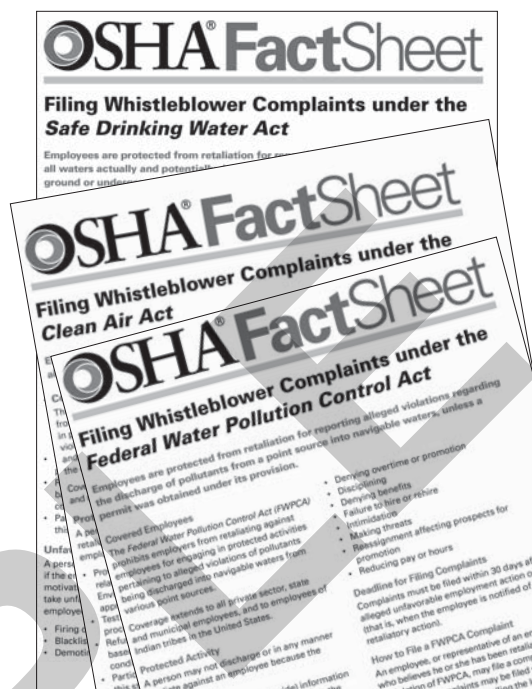
OSHA has released three new fact sheets for filing whistleblower complaints. The fact sheets describe workers' rights regarding the whistleblower process and the steps one must take to file a complaint. The new fact sheets cover filing whistleblower complaints under the:

- Clean Air Act
- Federal Water Pollution Act
- Safe Drinking Water Act

To view the fact sheets visit [www.whistleblowers.gov/fact-sheets\\_page.html](http://www.whistleblowers.gov/fact-sheets_page.html).

Section 11(c) of the OSH Act prohibits employers from discriminating against their

employees for exercising their rights under the OSH Act. These rights include filing an OSHA complaint, participating in an inspection or talking to an inspector, seeking access to employer exposure and injury records, reporting an injury, and raising a safety or health complaint with the employer. If workers have been retaliated or discriminated against for exercising their rights, they must file a complaint with OSHA within 30 days of the alleged adverse action. ♦



## Legislation would give companies time to comply, before giving penalties

Congresswoman Vicky Hartzler (R-MO) introduced legislation to protect small businesses by giving them time to comply with OSHA regulations rather than facing an immediate arbitrary fine for non-serious violations.

“Some of the OSHA fines that small businesses have been

slapped with recently are bizarre. Facing an immediate fine – sometimes up to \$7,000 – because a yellow line was not painted 10 feet from the edge of a flat roof, or because the emergency eye wash water was too cold is silly,” Hartzler said. “This seems to be a case of the federal government

using minor, trivial rules to make it harder for manufacturers to produce American-made products.”

This legislation, H.R.1932, would require OSHA to allow a business to come into compliance with code in a reasonable amount of time, should an infraction be found.

Hartzler notes that worker safety is a high priority, so this legislation does not apply to repeat or willful violations or those that are serious in nature. This legislation is designed to promote an environment where businesses constantly improve worker safety while being able to use their resources to continue boost the economy and create jobs. ♦





## OSHA announces availability of Susan Harwood training grants

OSHA recently accepted applications for 2015 targeted-topic training grants and capacity-building training grants under the Susan Harwood Training Grant Program. A total of \$3.5 million is available for nonprofit organizations, including community and faith-based organizations, employer associations, labor unions, joint labor/management associations, tribal organizations, and colleges and universities.

The grants fund the creation of in-person, hands-on training and educational programs and the development of materials for workers and employers in small businesses; industries with high injury, illness, and fatality rates; and vulnerable workers who are underserved, have limited English proficiency, or are temporary workers. The grants will fund training and education for workers and employers to help them identify and prevent workplace safety and health hazards.

"These grants provide such a valuable service to American workers because they're providing essential training to the vulnerable workers in small businesses and high-risk industries that need it most," said U.S. Secretary of Labor Thomas E. Perez. "Susan Harwood program grants fund great programs with a truly noble goal, which is to make sure that every worker gets home safe and healthy at the end of the day."



### Targeted topic

The targeted topic training grants support quality training programs and educational materials that focus on identifying and preventing workplace hazards. Applicants must address the occupational safety and health hazards designated by OSHA in the grant announcement. Grants may be eligible for one additional follow-on grant, based on satisfactory performance. This announcement also makes available funds for targeted-topic training and educational materials that focus on developing quality training materials.

### Capacity-building

Two types of capacity-building grants are available: capacity-building pilot and capacity-building developmental grants. Capacity-building pilot grants are intended to assist

organizations in assessing their needs and formulating a capacity-building plan before launching a full-scale safety and health education program.

Capacity-building developmental grants focus on improving and expanding an organization's capacity to provide safety and health training, education, and related assistance to target audiences. Capacity-building developmental grant recipients may be eligible for up to three additional 12-month follow-on grants, based on satisfactory performance.

### More information

OSHA accepted applications for the grants through June 2, 2015. Details about the grants were announced in the April 15, 2015, *Federal Register*. The grantees will be announced later this year. ♦

## Sorting out OSHA's "de minimus" violation policy

It is not uncommon for employers to want to protect employees from a hazard via a means that differs from that which OSHA requires.

Is this allowed?

OSHA does often allow employers to go beyond what a standard requires, or to deviate as long as there is no loss of safety. This is often done via OSHA's policy for "de minimus" violations. This means that, though there is a violation, there is no impact on safety and there will be no citation issued. The criteria for de minimis conditions is laid out in OSHA's Field Operations Manual. The conditions are those where an employer has implemented a measure different than one specified in a standard, that has no direct or immediate relationship to safety or health. Whenever de minimis conditions are found during an inspection, they will be documented in the same manner as violations.

The criteria for finding a de minimis condition are as follows:

1. An employer complies with the intent of the standard, yet deviates from its particular requirements in a manner that has no direct or immediate impact on employee safety or health. These deviations may involve, for example, distance specifications, construction material requirements, use of incorrect color, minor variations from recordkeeping,

testing, or inspection regulations.

2. An employer complies with a proposed OSHA standard or amendment or a consensus standard rather than with the standard in effect at the time of the inspection and the employer's action clearly provides equal or greater employee protection.
3. An employer complies with a written interpretation issued by the OSHA National Office or an OSHA Regional Office.
4. An employer's workplace protections are "state of the art" and technically more enhanced than the requirements of the applicable standard and provides equivalent or more effective employee safety or health protection.

Employers can also request variances from OSHA standards. Variances are regulatory actions that permit employers to deviate from a standard or regulation.

## ENFORCEMENT Insight

Employers can request a variance for many reasons, including not being able to fully comply on time with a new safety or health standard because of a shortage of personnel, materials, or equipment. Employers may prefer to use methods, equipment, or facilities that they believe protect workers as well as, or better than, OSHA standards.

There are several types of variances:

- Permanent
- Temporary
- Experimental
- National Defense
- Interim
- Recordkeeping

### For more information

For more information on the variance process visit [www.osha.gov/dts/otpc/variances/index.html](http://www.osha.gov/dts/otpc/variances/index.html). ♦





## When OSHA expands the scope of an inspection

Most employers know that they have a right to require OSHA to obtain a warrant before allowing them to conduct an inspection. This is called a “refusal to permit entry” and OSHA has a protocol to follow. (They may or may not attempt to seek a warrant; they may or may not be granted one.)

What many employers don't realize is that just because you allow OSHA entry initially, that does not mean you are consenting for OSHA to look at your entire facility. For example, if OSHA shows

up to conduct an inspection under an emphasis program on hazardous machinery, you may decide to allow them to conduct that inspection. However, if for some reason during the inspection, OSHA decides they'd like to look at other areas of your facility or other issues, you have the right to refuse that and require them to obtain a warrant first.



Now, in either scenario (the initial entry, or an expanded scope), the employer must balance the benefits and the risks (the risks being, of course, that OSHA may get a warrant and conduct a more thorough inspection than they otherwise would have). Often, however, OSHA inspectors want to close their inspection. So, they are more likely to keep the inspection to a limited scope that you consent to, rather than obtain a warrant to expand it. ♦

## Violation or no ... you make the call!

Mark was fairly confident in his lockout/tagout program—it was a program he had spent the past year updating.

So, when the OSHA inspector started asking questions about a particular piece of machinery, Mark wasn't too nervous.

“I see the maintenance guy working on that machine,” the inspector said. “But, it doesn't seem to be locked out.”

Mark was quick to reply. “We don't need to lock that one out because the disconnect switch is the single source of power—and it can be turned off, and fuses removed, and kept under the control of the maintenance worker.”

The inspector seemed confused. “Well, that may be the case, but the standard doesn't allow for that.”

“Sure it does,” Mark said. “It's just like unplugging a

machine's power cord—as long as it can be kept under the exclusive control of the maintenance worker and we verify it's off, then that is considered locked out. In order for another employee to reach the disconnect switch, they would need to walk past the employee performing maintenance on the machine.”

The inspector quickly replied, “I think you're mixing up two different concepts.”

### What do you think? Will Mark's employer be cited?

If you said “yes” you are correct.

OSHA's standard at Section 1910.147 includes provisions to protect employees performing servicing or maintenance of equipment from unexpected energization or start up. Section 1910.147(a)(2) Application, states that the standard does not apply to the following:

- “Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.”

The exception applies **only** to equipment that is de-energized through a cord and plug connection, and **not to other** forms of energy isolation devices, such as a disconnect switch.

Therefore, the disconnect switch described in the scenario would need to be locked out and tagged out in accordance with Section 1910.147(c) through (f), as well as Section 1910.333(b)(2). ♦

## Office ergonomics—Time to recheck the setup

Millions of people work with computers every day. Yet, many do not give much thought to how their computer station, desk, and associated work, are arranged.

While there is no single “correct” posture or arrangement of components that will fit everyone, there are basic design goals to consider when setting up a computer workstation or performing computer-related tasks.

Consider employees’ workstation as you read through each section and see if you can identify areas for improvement in posture, component placement, or work environment. This article, based on OSHA’s computer workstations ergonomics eTool, provides suggestions to minimize or eliminate identified problems, and allows you to create your own “custom-fit” computer workstation.

### Good working positions

To understand the best way to set up a computer workstation, it is helpful to understand the concept of neutral

body positioning. This is a comfortable working posture in which your joints are naturally aligned. Working with the body in a neutral position reduces stress and strain on the muscles, tendons, and skeletal system and reduces your risk of developing a musculoskeletal disorder (MSD). The following are important considerations when attempting to maintain neutral body postures while working at the computer workstation:

- Hands, wrists, and forearms are straight, in-line and roughly parallel to the floor.
- Head is level, or bent slightly forward, forward facing, and balanced. Generally it is in-line with the torso.
- Shoulders are relaxed and upper arms hang normally at the side of the body.
- Elbows stay in close to the body and are bent between 90 and 120 degrees.
- Feet are fully supported by the floor or a footrest may be used if the desk height is not adjustable.

## Safety Spotlight

- Back is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.
- Thighs and hips are supported by a well-padded seat and generally parallel to the floor.
- Knees are about the same height as the hips with the feet slightly forward.

Regardless of how good your working posture is, working in the same posture or sitting still for prolonged periods is not healthy. You should change your working position frequently throughout the day in the following ways:

- Make small adjustments to your chair or backrest.
- Stretch your fingers, hands, arms, and torso.
- Stand up and walk around for a few minutes periodically.



### Workstation components

Appropriate placement of the components and accessories for the desktop computer workstation will allow you to work in neutral body positions, help you perform more efficiently, and work more comfortably and safe.

Note: A laptop workstation creates special challenges due to its computer design, size, and the variety of areas in which it is used. While many aspects of this article





will be applicable to laptops, special considerations may be necessary when working with laptop units.

### **Chairs**

A chair that is well-designed and appropriately adjusted is an essential element of a safe and productive computer workstation. A good chair provides necessary support to the back, legs, buttocks, and arms, while reducing exposures to awkward postures, contact stress, and forceful exertions.

### **Desks**

A well-designed and appropriately-adjusted desk will provide adequate clearance for your legs, allow proper placement of computer components and accessories, and minimize awkward postures and exertions.

### **Document holders**

Document holders keep printed materials needed during computer tasks close to the user and the monitor. Appropriate placement of the holder may reduce or eliminate risk factors such as awkward head and neck postures, fatigue, headaches, and eye strain.

### **Keyboards**

Proper selection and arrangement of the computer keyboard helps reduce exposure to awkward postures, repetition, and contact stress.

### **Monitors**

Choosing a suitable monitor and placing it in an appropriate position helps reduce exposure to forceful exertions, awkward postures, and overhead glare. This helps prevent possible health effects such as excessive fatigue, eye strain,

and neck and back pain.

### **Pointer/Mouse**

In addition to the conventional mouse, there are trackballs, touch pads, finger tip joysticks, and pucks, to name a few. Selection and placement of a pointer/mouse is an important factor in creating a safe computer workstation.

### **Telephones**

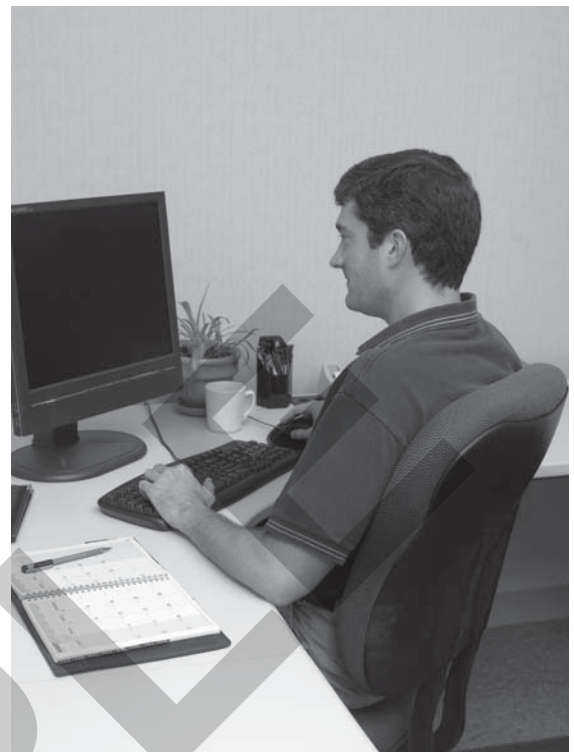
Telephones add to the convenience of a workstation; however, telephones have cords that can get tangled up, and can cause the user to assume awkward postures.

### **Wrist/Palm Supports**

Wrist or palm rests can also increase your comfort. Although opinions vary regarding the use of wrist/palm supports, proper use has been shown to reduce muscle activity and to facilitate neutral wrist angles.

### **Work process and recognition**

Even when the design of the workstations is correct and environmental factors are at their best, users can face risks from task organization which can intensify the impact of other risk factors, such as repetition. Additionally, failing to recognize early warning signs could allow small problems to develop into serious injuries. Addressing task organization factors and medical awareness can help minimize the risk of developing musculoskeletal



disorders (MSDs) and stop the progression to injury.

### **Workstation environment**

Appropriately placing lighting and selecting the right level of illumination can enhance your ability to see monitor images. For example, if lighting is excessive or causes glare on the monitor screen, you may develop eyestrain or headaches, and may have to work in awkward postures to view the screen. Ventilation and humidity levels in office work environments may affect user comfort and productivity.

Arrange your office to minimize glare from overhead lights, desk lamps, and windows.

- Maintain appropriate air circulation.
- Avoid sitting directly under air conditioning vents that “dump” air right on top of you. ♦

## NFPA 505: Fire Safety Standard for Powered Industrial Trucks

If you've ever reviewed OSHA's Powered Industrial Truck (PIT) standard, 1910.178, you may have noticed several paragraphs and charts related to operating trucks in hazardous atmospheres, along with truck designations, such as "E" and "ES."

The OSHA regulation was sourced from the National Fire Protection Association (NFPA) 505 *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*.

The NFPA 505 standard, among other things, lays out a system for identifying types of PITs for operation in

hazardous areas. In the most current edition (2013), there are 19 designations:

1. CHG - compressed hydrogen
2. CN - compressed natural gas
3. CNS - compressed natural gas
4. D - diesel
5. DS - diesel
6. DX - diesel
7. DY - diesel
8. E - electric
9. EE - electric
10. ES - electric
11. EX - electric
12. G - gas

## INSIDE Industry Standards

13. G/CN - gas or compressed natural gas
14. G/LP - gas or liquefied petroleum gas
15. GS - gas
16. GS/CNS - gas or compressed natural gas
17. GS/LPS - gas or liquefied petroleum gas
18. LP - liquefied petroleum
19. LPS - liquefied petroleum

**Note:** The OSHA PIT standard only addresses designations for diesel, gas, LP gas, and electric.

### Charging/Fueling

The standard also contains safe practices for fueling and recharging PITs, including liquid fuels, LP gas, compressed natural gas, dual fuel, and electric.

While OSHA's 1910.178 standard provides some information on battery charging/charging, not much is given on how to safely change LP gas cylinders. The NFPA 505 standard provides quite a bit of safety information for safe cylinder change-out.

### For more information

NFPA makes the NFPA 505 standard available online for free viewing. You have to complete a registration with the NFPA website.

In addition, hard copies and electronic copies are available for purchase.

Visit [www.nfpa.org](http://www.nfpa.org) for more information. ♦





## Do fatalities from motor vehicle highway incidents have to be reported to OSHA?

According to an OSHA FAQ, if the motor vehicle accident occurred in a construction work zone, then you must report the fatality, in-patient hospitalization, amputation, or loss of an eye to OSHA. If the motor vehicle accident

occurred on a public street or highway, but **not** in a construction work zone, then you do not have to report the fatality, in-patient hospitalization, amputation, or loss of an eye to OSHA. However, you must record the event on



your OSHA injury and illness records, if you are required to keep OSHA injury and illness records. ♦

## Salesman killed when forklift falls off truck loading ramp

On June 4, 2007, a 37-year-old forklift salesman was crushed, and died 2 days later, after a forklift he was delivering for a customer fell off the dock plate between a flatbed truck and a loading dock. The truck had been backed up to the loading dock, the parking brake set, and the transmission placed in neutral. However, the truck wheels were not blocked against motion.

The salesman initially operated the forklift to release tension on the winch line as the truck driver removed the binding chains.

As the truck driver went to store the binding chains, the salesman backed the forklift off the bed of the truck. The truck bed was 9 inches below the loading dock, and the dock plate connecting the truck to the dock was set at an incline. The drive wheels were on the front of the forklift (to the rear in this instance), and as the salesman accelerated to go up the incline, the drive wheels on the bed of the truck pushed the truck away from the dock. The dock plate slipped off the truck bed and the forklift fell 4 feet to the ground. The victim



was crushed between the forklift and the loading dock.

### Findings/ recommendations

After completing the investigation, investigators recommend the following to prevent similar incidents:

- Before loading or unloading operations, completely block the truck and trailer against motion.
- Employers must train operators of powered industrial trucks in safe operating procedures and hazards associated with particular operations, such as loading and unloading from transport vehicles.
- Employees need to clearly communicate with co-workers when working together on or near moving machinery.

To read the full investigative report, visit [www.cdc.gov/niosh/face/pdfs/07OR011.pdf](http://www.cdc.gov/niosh/face/pdfs/07OR011.pdf). ♦



## NIOSH recommends tobacco-free workplaces

If you inform workers about your company wellness program you may be interested in a new NIOSH Current Intelligence Bulletin (CIB) that recommends all workplaces become tobacco-free and that employers make tobacco cessation programs available to workers. These latest recommendations also encompass the use of electronic nicotine delivery systems (ENDS)—or e-cigarettes.

### Tobacco use enhances occupational hazards

Many workers and their employers do not fully understand that tobacco use in their workplaces (most commonly smoking) can increase — sometimes profoundly — the likelihood and/or the severity of occupational disease and injury caused by other hazards present. This can occur in various ways:

- A toxic industrial chemical present in the workplace can also be present in tobacco products and/or tobacco smoke, so workers who smoke or are exposed to SHS are more highly exposed and placed at greater risk of the occupational disease associated with those chemicals.
- Heat generated by smoking tobacco in the workplace can transform some workplace chemicals into more toxic chemicals, placing workers who smoke at greater risk of toxicity.
- Tobacco products can readily become contaminated by toxic workplace chemicals,

through contact of the tobacco products with unwashed hands or contaminated surfaces and through deposition of airborne contaminants onto the tobacco products. Subsequent use of the contaminated tobacco products, whether at or away from the workplace, can facilitate entry of these toxic agents into the user's body.

- Often, a health effect can be independently caused by tobacco use and by workplace exposure to a toxic agent. For example, tobacco smoking can reduce a worker's lung function, leaving that worker more vulnerable to the effect of any similar impairment of lung function caused by occupational exposure to dusts, gases, or fumes.
- For some occupational hazards, the combined impact of tobacco use and exposure to a toxic occupational agent can be synergistic. An example is the combined synergistic effect of tobacco smoking and asbestos exposure on lung cancer, which results in a profoundly increased risk of lung cancer among asbestos-exposed workers who smoke.
- The risk of occupational injuries and traumatic fatalities can be greatly enhanced when tobacco use is combined with an occupational hazard. Obvious examples are explosions and fires when explosive or flammable materials in



the workplace are ignited by burning cigarettes or cigars. However, any form of tobacco use may result in traumatic injury if the worker operating a vehicle or industrial machinery is distracted by tobacco use (e.g., while opening, lighting, extinguishing, or disposing of a tobacco product).

### Go tobacco-free

NIOSH urges all employers to embrace a goal that all their workplaces will ultimately be made and maintained tobacco-free. Initially, at a minimum, employers should take these actions:

- Establish their workplaces as smoke-free (encompassing all indoor areas without exceptions, areas immediately outside building entrances and air intakes, and all work vehicles).
- Ensure compliance with OSHA and MSHA regulations that prohibit or otherwise restrict smoking, smoking materials, and/or use of other tobacco products in designated hazardous work areas.
- Provide cessation support for their employees who continue to use tobacco products.

Current Intelligence Bulletin 67: Promoting Health and Preventing Disease and Injury Through Workplace Tobacco Policies is available at: [www.JJKeller.com/wsc](http://www.JJKeller.com/wsc). ♦



## Eyewash equipment: Devil is in the details, or lack thereof

If you're familiar with OSHA's requirements for emergency eyewash and shower equipment, §1910.151(c), you know that the whole standard consists of one – yes, one – sentence. Granted, OSHA sentences can sometimes be quite lengthy, detailed, and complex, but in the case of the eyewash/shower standard, it's just one general and vague sentence.

OSHA says simply that “Where the eyes or body of any person may be exposed to

injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.”

That's it.

They don't define “injurious corrosive materials,” “suitable facilities,” or “immediate emergency use.”

So, what's a safety professional to do? How is he or she supposed to provide adequate

facilities that meet OSHA's expectations?

### ANSI Z358.1 to the rescue

Although OSHA has issued interpretations clarifying the intent of some eyewash/shower issues, in other situations, it is the employer's decision to make. But, for guidance with emergency eyewash and shower issues, OSHA directs employers to the ANSI Z358.1 standard.

#### Z358.1 highlights

This American National Standard covers installation and use specifications for various types of emergency eyewash and shower equipment. It provides guidelines for equipment locations, performance testing, and maintenance.

#### Location of equipment

The ANSI standard says that eyewash and shower units have to be installed in accessible locations that can be reached within 10 seconds from the hazard.

**Note:** For some situations, the ANSI standard calls for units to be placed immediately adjacent to the hazard and/or to consult an appropriate professional for advice on distances.

#### Volume/flow rate

The standard requires that equipment deliver at least

**Picture This**



See *Picture This*, page 16

**Picture This**, from page 15

15 minutes of flushing fluid at a specified flow rate.

**Testing**

The standard provides guidance for employers as to frequency of testing and inspection. For some equipment, weekly activation is called for; for others, a weekly visual inspection is required. In all cases, the standard

requires manufacturers to provide instructions with their equipment. These instructions must be available to those performing maintenance or inspection.

**OSHA and ANSI Z358.1**

Will OSHA cite an employer for not following the recommendations stated in ANSI Z358.1? According to OSHA, the answer is "no." ANSI

standards become mandatory OSHA standards only if they are adopted by OSHA. The ANSI Z358.1 consensus standard has not been adopted by OSHA; therefore, it does not have the force of a regulation. (Note: Some state OSHA plans DO specifically incorporate ANSI Z358.1 into their regulations.)

When compared with the minimal information in §1910.151(c), however, ANSI Z358.1 offers important details for emergency eyewash and shower equipment. Therefore, OSHA often refers employers to the ANSI standard as a guidance source.

**For more information**

This is just some of the information addressed in ANSI Z358.1. The standard contains not only guidance details, but also illustrations of the various types of equipment. To purchase this standard, visit the International Safety Equipment Association website at [www.safetyequipment.org](http://www.safetyequipment.org). ♦

**What are corrosives?**

Corrosives are contained in common household products such as batteries or drain openers. They are also required for some of the operations in your workplace.

Corrosives can be liquids, powders, pellets, or gases. Most have a strong, irritating odor. Reactions involving corrosives can display spattering and create heat and fumes.

Corrosives can be either acids or bases. It is always important to read the container's label to identify a substance. There is another way to detect the presence of a corrosive. You can use a specially treated paper called litmus paper. Litmus paper turns red in the presence of an acid. It turns blue in the presence of a base. The pH scale defines the strength of acids and bases, with a value of 7 being neutral.

- pH = 1 = strong acid (red litmus paper)
- pH = 7 = neutral
- pH = 14 = strong base (blue litmus paper)

**OSHA unveils new "It's The Law" poster**

OSHA recently unveiled a new version of its "Job Safety and Health - It's The Law!" poster. The poster informs workers of their rights, and employers of their responsibilities.

The poster is free and can be downloaded at [www.osha.gov/Publications/poster.html](http://www.osha.gov/Publications/poster.html).

Employers must display the poster in a conspicuous place

where workers can see it. (Previous versions of the poster do not need to be replaced.) ♦

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