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## **CONFINED SPACES IN CONSTRUCTION**

On August 3, the Occupational Safety and Health Administration (OSHA) releases its final ruling (to date) regarding confined spaces safety in the construction industry.

The last time OSHA issued rules regarding work in confined spaces was in 1993. Those provisions affected only the general industry, leaving the construction industry in the cold where training and safety guidance were concerned. A proposed rule was offered in November of 2007, however; it only carried the minimum regulatory information from the general industry including hazard training, precautions, and personal protective equipment training. These regulatory updates provide a much larger degree of guidance for construction workers involved in confined spaces work. Its implementation is expected to reduce the average number of confined spaces fatalities and injuries specific to the construction industry by an enormous 96 percent.

Specific areas in the construction industry affected include building, highway, tunnel, bridge, and utility line work, in addition to general contractors and specialty-trade construction contractors and employers. Provisions will include identifying confined spaces and the hazards they may contain, allowing employers to organize the work to avoid entry into a potentially hazardous space, removing hazards prior to entry to avoid employee exposure, restricting entry through a permit system where employers cannot remove the hazard, providing appropriate testing and equipment when entry is required, and arranging for rescue services to remove entrance from a confined space when necessary.



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OSHA expects that, by estimating the average cost of a confined spaces injury at \$62,000 and \$8.7 million per fatality, the injury prevention associated with full compliance of this final rule will result in approximately \$93.6 million in benefits each year.

Safety Services Company can help you customize your confined spaces program to reflect these changes. Visit safetyservicescompany.com to find out how.

## COMPLIANCE CORNER August 2015

Incident Investigations	pg 2
Deadly Dehydration	pg 2
Overhead Power Lines	pg 3
Tiptoeing Around Footwear	pg 3
National Immunization Awareness Month	pg 4

"The average cost of a confined spaces injury (is) at \$62,000 and \$8.7 million per fatality..."

OSHA

https://www.osha.gov/confinedspaces/index.html



#### INCIDENT INVESTIGATIONS

Training and prevention are two of the most vital elements of a safe and healthy workplace, and few things contribute as profoundly as learning from one's mistakes. At work, this is where incident investigations come into play. The primary goal of an incident investigation is to determine the cause so it does not occur again.

After an incident, employers should work with employees involved to determine the root cause. While the investigation should be conducted by a supervisor, involving management and employees will encourage workers to buy-in to the company safety program and offer individual knowledge and perspective to the investigation. This also ensures the focus is on causes, rather than blame.

The investigation should dig into every aspect of the incident. If an incident occurred because a rule or procedure wasn't being followed, find out why it wasn't being followed. If a piece of machinery malfunctioned, perhaps it wasn't due to user error, but rather a lack of required maintenance. The only way to successfully utilize an incident investigation is to identify the root causes.

Consider the investigation ineffective if the same incident occurs in the future, so be thorough the first time around.

#### **DEADLY DEHYDRATION**

There are many heat-related issues that put workers at risk. In the most recent Compliance Corner issues, we've discussed a number of them. Why? Heat stress illnesses are a serious concern that lead to thousands of hospitalizations and hundreds of fatalities each year, according to the Center for Disease Control (CDC). Safety Services Company feels so strongly about educating employers and employees on this issue, we will continue to focus on the details and share them with our customers, to help instill best practices for healthier and more productive workplaces throughout the summer season. This month, we address the importance of proper hydration.

Dehydration occurs when our bodies do not have the fluids necessary to function properly. Because our bodies are made of 60 percent water, losing fluids means giving up the fuel internal organs need to operate optimally. When we're dehydrated, our bodies find water reserves wherever they can to compensate for the shortfall, shrinking cells and reducing organ function. The only way to combat dehydration is to take in more fluids than we actually use.

Mild symptoms of dehydration include headache, dizziness, muscle weakness, lethargy, and dry mouth. As symptoms progress to severe, they will include an inability to sweat, increased heartbeat, dry skin, fever, sunken eyes, delirium, confusion, and unconsciousness. Once severe symptoms appear, the dehydrated worker needs immediate medical care, as simple water intake will no longer suffice.

Workers should avoid drinking beverages that contain caffeine. Caffeine acts as a diuretic increasing the frequency of urination, resulting in fluid loss. Drinking coffee, soda, and tea may give the sensation of quenching thirst, but in fact induces more harm than good. In addition, beverages containing sugar should be avoided because sugar requires a large amount of the body's energy to process. Choose water instead.

Urine is often a good indicator of hydration. A properly-hydrated person will urinate every three to five hours, and it should be clear or light-colored. Urinating less frequently, and urine that is dark yellow or amber in color are signs of dehydration.

Water loss happens in a number of ways: When we breathe (in the form of water vapor), when we urinate, and when we sweat. Sweating is the body's natural self-cooling system. Water is excreted through the pores and upon evaporation, heat is then moved away from the body. In order to stay cool and avoid the many other heat-related illnesses, we need to sweat. But sweating means a loss in fluids that needs to be replaced by drinking plenty of water.

Many people have a low tolerance to thirst triggers in which the body lets them know they're thirsty. Once they do feel thirsty, their body is already two to three percent dehydrated, and catching up may be difficult. Workers should consume water frequently throughout the work day before symptoms appear. While eight to ten glasses of water per day is an appropriate rule of thumb, it's important to take body size and shape, state of overall health, and degree of physical exertion into consideration. While working, every employee should drink one cup of cool water every 15 to 20 minutes as prevention is by far the most effective method of controlling dehydration. C



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Companies should educate their workforce on the importance of proper hydration. In turn, workers should understand how to recognize the symptoms of dehydration both in themselves and in others, and understand the serious health risks involved. It is also important to create a work environment that promotes hydration by providing cool, potable drinking water that is easily accessible.

Dehydration prevention should be a core element in any heat stress program. For information on how we can provide custom training solutions for workers exposed to heat stress hazards, visit safetyservicescompany.com.

## **OVERHEAD POWER LINES**

On June 6, two workers in Santa Maria, CA were electrocuted when a crane came into contact with an overhead electrical power line, resulting in one fatality and one serious hospitalization for major electrical injuries to the hands and feet. The men were performing work on an underground pump which led to an underground well.

This incident speaks to a much larger issue regarding the importance of safe work procedures while working near overhead power lines. The Electrical Safety Foundation International (ESFI) co-presented with the Institute of Electrical and Electronics Engineers (IEEE) a paper which explores occupations at the highest risk of overhead power line-related fatalities in its 2015 electrical safety workshop. High-risk industries include power line construction, electrical work, roofing, electrical services, ornamental shrub and tree services, asbestos and lead paint removal services, painting, and concrete work.

Occupations most at risk are:

- electrical power installers & repairers
- construction laborers
- supervisors of electricians
- power transmission installers
- painters
- carpenters
- roofers
- electricians
- truck drivers

In the construction industry alone electrocution is responsible for approximately 20 percent of all work-related fatalities. Electrical injuries happen quickly; there is no time to respond once a worker or equipment has come into contact with a power line. The injuries that result are often severe or deadly, as electricity will enter the body and rapidly exit through an extremity, causing internal burns along its route.

It is vital workers receive thorough training on electrical hazards before performing work. Training should include recognizing overhead power lines in the area, the nature of electrical injury, and how to work safely in order to avoid it. As heavy equipment such as boom lifts and cranes are often responsible for contact with overhead power lines, workers must also receive training on how to properly operate them. Employers should perform worksite hazard evaluations upon arrival, identifying overhead power lines and stationing work appropriately.

All power lines should be considered energized until a local electrical utility company determines otherwise, and work should never be performed within 10 feet of a live line. Remember that electrical power is not limited to power lines alone – cable and telephone lines carry electrical currents and should be treated with the same care.



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#### TIPTOEING AROUND FOOT WEAR

Physical comfort and personal protective equipment (PPE) don't always go together. After all, most people would consider foregoing a pair of safety boots if they think a more casual shoe will suffice. However, foot injuries on the job are widespread across all occupations and can be debilitating. How can they be prevented? With safe work procedures in place, followed, and the right PPE "on foot", the risk for such incidents can be minimized.

The first key to encouraging workers to use the right footwear is to understand the benefits to a proper fit. PPE footwear should have plenty of toe room, be spacious enough to accommodate socks, provide arch support where needed, and, ideally, extend and lace neatly above the ankle. Choose footwear appropriate for the task at hand. Most safety footwear is designed to protect the foot from impact, compression, electricity, and puncture. Also, ensure it is rated properly for the current working conditions. Footwear should be inspected before and after each use, as wear and deterioration can significantly reduce protective qualities.

Always wear protective footwear if there are hazards present. For employees who work in or around a warehouse, the use or movement of heavy equipment can present risk for injury. Even for office staff members, wearing open-toed shoes can create unnecessary vulnerabilities, regardless of the work location or season.







## Q: Why is refresher training important?

Workers who are equipped with the knowledge and skills to perform their jobs safely are far less likely to be injured, and businesses see fewer monetary losses as a result. Often, workers will receive initial job training upon hire or before starting a specific task, become proficient through handson experience, and then assume no further training is necessary. In order to meet changes in the workplace and keep training knowledge sharp, refresher training is a must.

Refresher training should be scheduled at least annually as a mandatory guideline. When there are workplace changes, such as the introduction of new equipment, a new work zone, or new procedures, workers must receive additional training.

When an employer introduces changes into the workplace, or observes an employee working in a manner which indicates they did not fully understand their training, it's time to schedule refresher training.

Conversely, when a worker realizes the need for more training in order to perform the job safely, a supervisor should be informed. Far too often, workers will remain silent about a lack of understanding out of fear for job security or being humiliated by coworkers. Training helps reinforce employee connectivity.

#### NATIONAL IMMUNIZATION AWARENESS MONTH

August is National Immunization Awareness Month (NIAM), dedicated to promoting the importance of receiving immunizations (also known as "vaccinations") to reduce the spread of preventable illnesses.

Vaccine-preventable illnesses are any transmittable diseases which can be prevented by immunization. While vaccination is typically associated with childhood, a staggering number of adults are affected each year by illnesses which could have otherwise been prevented. According to the Center for Disease Control and Prevention (CDC), an average of 36,000 deaths and 200,000 hospitalizations associated with influenza occur each year in the United States alone. Influenza creates workplace losses of \$6.2 billion annually, primarily due to the 17 million lost work days due to the illness.

The CDC also recommends that employers focus on their health care coverage. Cost barriers which prevent many employees from seeking personal medical attention can be lowered by providing health plan options that reduce the out-of-pocket costs for immunization. Vaccination coverage can increase overall health in the workplace.

A good practice to implement within the workplace is to send reminders to employees

about scheduling immunization renewals.

Immunization is a community effort which extends beyond the workplace. Workers who contract a vaccine-preventable illness at work will take that illness home where it may spread to family or other members of the household. Workers should stress the importance of immunization to those they live with, as the spread of illness in the home may lead back to the workplace.

There has been some controversy each year when influenza season begins. The instances of influenza can be reduced by taking the recommended vaccines.

To help maintain a healthy workplace, employers should encourage workers to stay home when they are ill, especially where highly-contagious and potentially deadly illnesses like influenza are concerned. If not, what would be one employee's absence can easily multiply to many.

Businesses can get involved in NIAM by providing knowledge training opportunities for their employees. Consider onsite vaccinations, seminars on immunization, inviting guest speakers from local health care facilities, courses on the nature of preventable diseases, providing information brochures, or encouraging employees to participate in discussions on social media.

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