



# GSBE's News to Use

## 10 Neglected Construction Safety Concerns

With so many risks on the job, it is no surprise that construction workers are more prone to serious injuries and in some cases, fatalities, than other industries. As a result, employers must continually strive for workplace safety compliance and most importantly, their employees' health and vitality.

### 1 Scaffolding

Workers assigned to scaffolding jobs should be properly trained and continually aware of their environment as falling debris, electrocution from power lines, and falls related to unstable platforms can result in serious injuries. Supported and suspended scaffolds should be properly outfitted with guardrails to prevent workers from falling from an open side, and workers should be secured in appropriate fall protection. According to the National Institute for Occupational Safety and Health (NIOSH), scaffolds and scaffold components must be capable of supporting at least four times the maximum intended load.

### 2 Fall protection

All employees whose work conditions include the danger of falling should undergo fall protection training regularly. Company training courses should identify specific hazards and familiarize employees with all fall protection equipment used in the workplace. A review of the written prevention and rescue plan will assure employees that help is never far away.

Fall protection equipment should be inspected each time it is used and by a qualified person once every year, and that inspection should be documented. The equipment should be inspected according to manufacturer's recommendation and OSHA requirements. A thorough visual inspection for signs of stress and wear should be performed every time a harness is used.

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### 3 Ladder safety

The misuse of portable ladders can lead to injuries such as sprains and broken bones, but in extreme cases also head and neck trauma, or even death. Ladders should be secured and safely positioned at appropriate angles and prior to use be visually inspected for damaged components including hinges, rungs/steps, side rails and feet. Side rails should extend at least 3 feet above the landing and be secured at the top to a sturdy support. Portable ladders should be used in compliance with the weight standard they are designed to hold and should also comply with OSHA standards as specified in 29 CFR 1926.1053(a)(1).

### 4 Respiratory safety

OSHA has established a respiratory protection standard covering detailed procedures for reducing and eliminating respiratory hazards. The specifications of these standards can be found in OSHA regulations 29 CFR 1910.134. All measures for respiratory protection are required to adhere to these standards, so it is important that employers understand them before determining the best course of action for upgrading workplace respiratory safety.

As a starting point for compliance, employers should have an exposure assessment performed to determine exposure levels and fume components (including from welding) and exposure levels. A certified industrial hygienist or other qualified occupational health specialist conducts this assessment. Employers can also contact their insurance companies to get recommendations on how the assessment should be completed.

### 5 PPE

Personal protective equipment (PPE) is worn to reduce employees' exposures to occupational hazards and is required to be available on-site by OSHA. In fact, new OSHA regulations dictate that where PPE is required, employers are now responsible for providing it. Otherwise, employers are ultimately responsible for determining the level of PPE their employees use for optimum protection. Hard hats, eye, ear and hand protection, earplugs and other protective equipment provide protection from falling objects, head injuries, sparks, dust/fragments and burns.

Unfortunately, many workers choose to forgo this level of protection due to discomfort or disinterest. In response to this issue, many safety distributors now offer a range of comfortable and more fashionable gear to choose from, including eyewear that resists fog and prescription-strength safety glasses.

### 6 First aid and fire safety

It is common sense that first aid and fire safety are key programs on any given job site. However, many sites lack enough first aid stations, kits and materials such as gauze, bandages, ice packs, burn ointment and eyewash stations. Similarly, fire extinguishers should be kept in ample supply, regularly inspected and used for the type of fire they are effective on. Workers should be adequately trained about fire hazards on the construction site and what to do in an emergency. Fire emergency plans should outline the assignments of key personnel, provide evacuation routes and be reviewed regularly.

### 7 Confined spaces

Working in confined spaces can be an inconspicuous risk, as fatalities most often occur due to invisible circumstances such as oxygen-deficient, toxic or combustible atmospheres. Also known as permit-required confined spaces, they should be tested prior to entry and continuously monitored using a properly configured and calibrated monitor. The monitors, once connected to a docking station, also help maintain a proper calibration record for these confined spaces.

Workers must also use lockout/tagout (LOTO) to safeguard themselves from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities in confined spaces such as vessels. Approximately 3 million workers service equipment and face the greatest risk of injury if every worker in the confined space does not properly "lock out" the hazard and then "tag out" of the space once their work is completed. Compliance with the OSHA lockout/tagout standard 29 CFR 1910.147 prevents an estimated 120 fatalities and 50,000 injuries each year.

### 8 Recordkeeping

Maintaining up-to-date records of equipment inspections and injury logs is not only required by OSHA, but is also the best way to protect employers

from legal ramifications in the event of injury and death.

### 9 Welding safety

Welding injuries, from minor flash burns to eye injuries, can be painful and cause disfigurement or career-ending disabilities. Wearing the proper PPE is an easy way welders can protect themselves against these risks and preserve their livelihood.

Unfortunately, overconfidence leads welders to think they are immune to such injury, or they may choose not to use PPE because it is too expensive or the job is too small. Some welders under-protect themselves because they feel the PPE is too warm or restrictive to wear. Fortunately, workers now can find new PPE garments made of lightweight materials that wick away sweat to stay comfortable. Welders now have many options in materials, flame-retardant traits, fabric weight and accessories to suit up for the job.

Welding helmets should be equipped with the proper filter lens in either a passive or an autodarkening style to shield against the arc's bright light. Remember that

ANSI Z87.1 lists welding helmets as secondary eye protection that must be used with the primary protection provided by safety glasses or goggles.

Airborne hazards should also be assessed and the necessary engineering controls implemented to maintain acceptable exposure levels using ventilation, fans or fume extractors.

### 10 Training

The key to preventing many workplace accidents and injuries is frequent and effective employee training programs. These programs exist for virtually all construction safety components including fall protection, fire safety and welding safety among others.

Although many employers provide on-the-job training through their on-staff safety specialists, there are voluntary educational programs available for additional certification such as OSHA's Outreach Training Program.

Source: By Tom Eatchel and Todd Woulf, [www.ishn.com](http://www.ishn.com)

## Common Sense is Not So Common

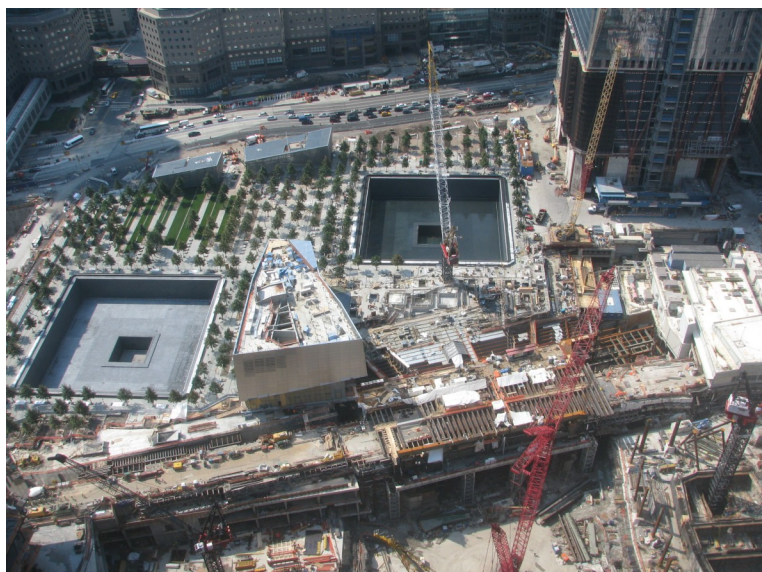
A little common sense can go a long way when it comes to safety issues that are common to many work sites. Thinking ahead and preparation can help to reduce safety hazards. Keep the following recommendations in mind when you take a look at your worksite.

**Always practice good housekeeping** - Stack materials properly. Keep tools, cords, and equipment out of walkways and stored properly when not in use. Put into effect a clean-up program to remove trash, scraps, parts, and materials from platforms and walkways. Having a clean workplace helps to prevent personal injuries and fire hazards.

**Inspect and provide appropriate fire extinguishers** - Fire extinguishers must be appropriate for the work site (know the correct extinguisher for each class of fire). They should be mounted properly, and easily

accessible. They must be regularly inspected and tagged to show when and who performed tests.

**Make available proper personal protective equipment (PPE)** - Make sure that workers are wearing the right personal protective equipment for the hazards on the job. Analyze all the operations of your work place to determine what type(s) of PPE is needed.



**Develop a thorough lockout/blockout program** - All workers should be trained in and understand the importance of locking and blocking machinery and equipment, even for those “quick and easy” jobs or repairs. Machines can be inadvertently turned on while being maintained, repaired, or adjusted causing electrocution, crushing injuries and loss of limbs.

**Guard power tools and moving machine parts** - Keep all power tools properly shielded or guarded. They should never be operated with the guards off.

**Ground electric power tools and equipment** - Safeguard workers from shock or electrocution by using tools with three-prong plugs, double insulation or ground-

fault systems. Check electrical equipment for frayed wires or damaged plugs often.

**The importance of safety meetings** - The company can convey their commitment to safety and impress upon workers the need to take every precaution to keep the work place safe. If workers are trained to understand the correct and safest way to perform their job, they’ll be able to do it safely and with common sense. Safety meetings are one of the most important factors contributing to a safe work environment and are required every ten working days.

Source: [State Compensation Insurance Fund](#)

## The Importance of a First Aid Program

If an accident were to occur today in your workplace, would you know what to do? Would the employees injured be given the best possible care?

Creating a first aid program that meets the requirements of the law and is customized to the type and size of the workplace can make the difference between life and death or between recovery and permanent disability when an accident occurs.

Employers should make sure that all employees are familiar with the locations of their worksite emergency information and where it is posted. The notice should display the phone numbers of the closest ambulance service, fire and rescue unit, police station, and hospitals. The amount of time it can take to look up this information can make a big difference to a seriously injured person. The location of first aid equipment and rescue equipment should also be posted prominently.

Every work site should have a person with medical or first aid training readily available in case of an emergency. First aid equipment and supplies, including a variety of dressings and instruments, as well as an up-to-date first aid manual, should be stored where they can be accessed quickly and easily in the event of an accident. Supplies should be inspected regularly, making sure they are kept in sanitary and usable condition, and re-stocked

after use. Based on the size of the workplace, more than one fully equipped first aid kit may be required.

At remote work sites, emergency supplies and an action plan are particularly important. At least one person trained in emergency first aid should always be on-site. First aid must be given correctly otherwise it can cause harm instead of helping an injured person. All workers should be familiar with who on-site is trained to give first aid, where the emergency first aid equipment is located, and what medical professional or medical facility should be contacted should a medical emergency occur.

Periodically review your company policy on first aid response with your workers so that all will understand and respond appropriately to injuries or illnesses that may occur on the jobsite.

Source: [State Compensation Insurance Fund](#)



## Keep Good Records Now to Reduce Tax-Time Stress

You may not be thinking about your tax return right now, but summer is a great time to start planning for next year. Organized records not only make preparing your return easier, but may also remind you of relevant transactions, help you prepare a response if you receive an IRS notice, or substantiate items on your return if you are selected for an audit.

Here are a few things the IRS wants you to know about recordkeeping.



1. In most cases, the IRS does not require you to keep records in any special manner. Generally, you should keep any and all documents that may have an impact on your federal tax return. It's a good idea to have a designated place for tax documents and receipts.

2. Individual taxpayers should usually keep the following records supporting items on their tax returns for at least three years:

- Bills
- Credit card and other receipts
- Invoices
- Mileage logs
- Canceled, imaged or substitute checks or any other proof of payment
- Any other records to support deductions or credits you claim on your return

You should normally keep records relating to property until at least three years after you sell or otherwise dispose of the property. Examples include:

- A home purchase or improvement
- Stocks and other investments
- Individual Retirement Arrangement transactions
- Rental property records

3. If you are a small business owner, you must keep all your employment tax records for at least four years after the tax becomes due or is paid, whichever is later. Examples of important documents business owners should keep include:

- Gross receipts: Cash register tapes, bank deposit slips, receipt books, invoices, credit card charge slips and Forms 1099-MISC
- Proof of purchases: Canceled checks, cash register tape receipts, credit card sales slips and invoices
- Expense documents: Canceled checks, cash register tapes, account statements, credit card sales slips, invoices and petty cash slips for small cash payments
- Documents to verify your assets: Purchase and sales invoices, real estate closing statements and canceled checks

For more information about recordkeeping, check out IRS Publication 552, Recordkeeping for Individuals, Publication 583, Starting a Business and Keeping Records, and Publication 463, Travel, Entertainment, Gift, and Car Expenses. These publications are available at [www.irs.gov](http://www.irs.gov) or by calling 800-TAX-FORM (800-829-3676).

### Links:

Publications 552, Recordkeeping for Individuals ([www.irs.gov/pub/irs-pdf/p552.pdf](http://www.irs.gov/pub/irs-pdf/p552.pdf))

Publications 583, Starting a Business and Keeping Records ([www.irs.gov/pub/irs-pdf/p583.pdf](http://www.irs.gov/pub/irs-pdf/p583.pdf))

Publication 463, Travel, Entertainment, Gift, and Car Expenses ([www.irs.gov/pub/irs-pdf/p463.pdf](http://www.irs.gov/pub/irs-pdf/p463.pdf))

Source: [www.irs.gov](http://www.irs.gov)

## What Do I Do About Lost Paychecks?

**Question:** I have an employee who seems to lose his paycheck at least 4 times a year. If an employee loses a payroll check, or tells me they never received their paycheck, can I charge the employee a processing fee for cutting a new check and stopping payment on the initial check?

**Answer:** The obligation to pay an employee's wages for work performed rests with the employer. Therefore, the law prohibits a deduction of anything from an employee's wages not required by law without a voluntarily executed written authorization from the employee.

When employees report a lost or stolen check to an employer, there may be a question as to the truth of the report and/or the question of the cost of replacing the lost check and stopping payment on the previously issued check. In either case, these costs cannot be passed on to the employee, as the law considers them a part of the natural cost of doing business.

Section 224 of the Labor Code does allow for deductions when authorized in writing by the employee, but only for: insurance premiums; hospital or medical dues; other deductions not amounting to a rebate or deduction from the wage paid to the employee. Section 224 may not be relied upon to allow an employer to deduct from an employee's pay an amount that is for the use or benefit of the employer.

Source: [www.employers.org](http://www.employers.org)

## Safety On The Worksite

The site of a construction project is a busy place and has many things going on at the same time. Workers are performing various tasks and vehicles and equipment are constantly on the move. Machinery is a necessary part of the job; it can also be the cause of many accidents and injuries. Machine operators do their best to keep from running into or over workers, but with all the activity and noise at the site, an operator may not see a worker in the line of danger. It is also the workers' responsibility to be aware of what's happening around them to avoid personal injury on the job.

Stay alert and out of the way of moving equipment to avoid injuries from vehicle turns, slides and load shifts. Workers should not depend on hearing a horn or back up alarm, because a construction site is not only busy, it's also noisy. Workers should not take chances by darting from behind a moving vehicle, risking a slip and falling under the machinery. No one should ever ride on any part of a moving vehicle, like the running boards, drawbars, loader buckets or on top of a load, except areas intended for transport.

The workers operating the moving equipment should be trained and competent. They should be prepared for the day by getting enough rest and taking occasional breaks

during the day to reduce fatigue. If operators feel ill or take medication that may affect their level of alertness, machine operation should be avoided. Seat belts should be securely fastened before driving, including vehicles with roll over protection (ROPs). If there are no passenger seats, there should be no riders. Operators should check to see that everyone is at a safe distance from the vehicle or equipment before moving. Only workers with a driver's license should take equipment on public roads.

Everyone at the job site should be cautioned not to approach or get on any equipment that is under power. When backing a vehicle, operators should ask another worker to direct the backing from a safe and visible distance. When equipment is stopped, brakes should be set securely, using park/lock and keys removed to keep unauthorized persons from restarting the machinery. Operators should disengage the power take off, while keeping shields and guards in place, and turn off the engine and remove the key before unclogging, refueling or working on a power-driven machine. Workers need to keep in mind to stay safe, they should not get behind, or alongside of, moving vehicles and equipment. Staying alert is key in injury prevention

Source: [State Compensation Insurance Fund](http://State Compensation Insurance Fund)

## Does Operating Out of Name Style Make Contractor Unlicensed?

By Sam K. Abdulaziz  
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As you may be aware, it is very important for a licensed contractor to conduct business under the proper name – as it is shown on the CSLB records. Failure to do so is a cause for discipline by the CSLB and may prevent a contractor from collecting compensation if they are deemed to be unlicensed because of the incorrect name being used.

The California Courts of Appeal recently heard the case of *David E. Ball v. Steadfast-BLK* which sheds new light on this operating out of name style issue. David E. Ball (“Ball”) was, is, and has been a duly licensed contractor with the CSLB as a sole proprietor. According to the CSLB, Ball has a fictitious name of “Clark Heating and Air Conditioning.” Therefore, the correct name style would be “David E. Ball dba Clark Heating and Air Conditioning” or even “Clark Heating and Air Conditioning.”

Given that nobody is perfect, and mistakes happen, Ball entered into a contract under the name style “Clark Air Conditioning & Heating.” At first glance, it appears to be the same name; at least it contains all of the same words. The name is actually transposed and Ball therefore was operating out of name style. The question at hand is whether this made Ball an unlicensed contractor.

The trial court saw Ball as an unlicensed contractor because of his operating out of name style. They further determined that since he was an unlicensed contractor he could not bring any actions to seek compensation for his work, according to *Business and Professions Code* § 7031(a). Because of this, the trial court ultimately dismissed Ball’s foreclosure on the mechanic’s lien cause of action.

Upon appeal, it was determined that any fictitious business name that Ball was operating his business under would still be “licensed” since Ball was the sole proprietor licensee not the fictitious name or dba, since the company is not a legal entity. Note that the CSLB licenses

individuals (such as Ball), partnerships, corporations and soon, limited liability companies.

It was further found that even if Ball did break the law as laid out in the *Contractors’ State License Law* that it was not sufficient to disallow him from seeking recovery for work performed. The violations could constitute a technical violation with the CSLB.

Although this decision gives the individual sole owner breathing room with respect to their name style when it comes to recovery, there are various technical violations that still pose a threat. These violations can cause an in depth investigation by CSLB Enforcement Representatives and bring disciplinary actions such as fines, license suspension, and even revocation of the license. The violation could also become public record for all further customers to see and possibly cause them not to enter into a contract.

As simple as it is, it’s always a good idea for any type of contractor to make sure that everything they are doing is under the proper name style. It’s a good foundation for the business.

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## Staying Alert About Fatigue

Earlier this year, an airline pilot was making the familiar approach to Washington's National Airport. As always, the approach controller handed him off to the airport's tower controller. While the plane continued to descend, the pilot radioed his position to the tower, and waited for a reply. He didn't receive one, so he tried again. And again.

Realizing that something was wrong, and seeing that the approach and runway were clear of traffic, he landed and taxied to the gate. A short time later, a second flight experienced exactly the same situation, and that pilot also opted to land.

The reason for the silence? The tower controller had simply fallen asleep. After working four overnight shifts in a row -- fighting to stay awake during the tedious hours when airline traffic was minimal -- fatigue overcame him. Because he was working alone, nobody noticed that he had dozed off as two pilots safely brought 165 passengers and crew members to their destination.

The workers on your jobsite may not be responsible for the lives of hundreds or thousands of passengers during their daily shifts, but they are equally susceptible to fatigue and the potential for danger.

Before you brush sleepy workers aside as a minor problem, consider that fatigue has been a contributing factor in nearly every headline-grabbing industrial accident from the Chernobyl nuclear plant to the Exxon Valdez oil spill. It's considered to be a major contributor to as many as two of every five commercial vehicle accidents. Whether a worker is landing a 767 or handling a potentially destructive power tool, simple fatigue can have devastating results.

### How big a problem?

Because it's difficult to quantify and measure the degrees of fatigue and their specific impacts on a worker's ability to perform tasks, it's tough to find clear statistics about dangers associated with sleepy workers.

It's been estimated that worker fatigue in the U.S. carried a \$135 billion price tag in 2009. Only about 16

percent of that cost was in the form of actual damage. The rest represented lower worker productivity. While it is difficult to assign dollar figures to productivity, it's widely accepted that workers who are sleepy cannot perform as effectively as their well-rested counterparts. Worker fatigue is also a contributor to increases in absenteeism and medical costs.

Fatigue takes a toll in many ways. For starters, it reduces a worker's normal decision-making skills and the ability to plan for complex tasks. A tired worker's attention span will shrink, causing him or her to be less vigilant about potentially dangerous situations. Even worse, reaction times will lengthen, so it will take longer for the worker to recognize the need for corrective action. At the same time, tired workers will be more likely to take on risks.

The incident at Washington's airport comes as no surprise. A study several years ago by the Civil Aerospace Medical Institute of the Federal Aviation Administration identified extensive fatigue among the agency's controllers. Between 60 and 80 percent admitted that they had caught themselves starting to doze off when working early morning or midnight shifts -- and a full third admitted to falling asleep while driving to or from work when they were on the midnight shift!

### What exactly is fatigue?

We tend to think of a fatigue as simply being tired, but from a medical standpoint, it's more than that. In the workplace, fatigue occurs when a worker's ability to react or respond is temporarily reduced because of physical or emotional conditions. It has any number of causes beyond just not getting enough sleep. It can be the result of too much mental or physical work, facing high amounts of anxiety or stress, or the mind-numbing effects of boring tasks, especially when those tasks are repetitive (or intermittent, such as overnight shifts in a control tower).

In addition to being sleepy, symptoms of fatigue include both irritability and giddiness, depression, headaches, muscle pain, and appetite loss. Fatigue may be strong enough to trigger "micro-sleeps," in which a worker briefly dozes off without realizing it until full consciousness returns.

Some fatigue is short-term, or what doctors call acute. Acute fatigue is usually the result of getting less sleep one night or working especially hard, and the symptoms normally go away after a good night's sleep or simple relaxation. Chronic fatigue involves many of the same symptoms, but isn't remedied by sleep. It may be caused by an underlying medical condition (including one known as chronic fatigue syndrome), and may increase an individual's susceptibility to other illnesses such as heart disease, high blood pressure, and stroke.

### The role of rhythm

Our bodies are geared to follow 24-hour cycles. Many of our physical functions are managed by these cycles, which are known as circadian rhythms. Everything from digestion to our body temperatures operate on these cycles, which ensure that we're ready to handle the challenges of our active lives during the daytime, while conserving and renewing our energy as we sleep. As an example, our body temperature tends to be higher during the day and at its lowest while we're asleep. While these rhythms were initially triggered by sunlight, our bodies now receive cues from the time of day, meals, and interactions with others to guide our cycles.

Although our bodies know what's best for us, the realities of life and the workplace mean that we frequently have to ignore these natural reminders. That may mean staying up when our bodies are telling us to sleep, or waking up to the alarm clock much earlier than we want to, and feeling that we didn't have enough sleep. At other times, it may involve delaying meals beyond the time at which we are hungry.

In the short term, ignoring these rhythms may make us a little drowsy or a wee bit irritable. But if we continue to ignore the rhythms, our bodies will protest with feelings that can range from strong fatigue to disorientation. If you've ever experienced "jet lag," you've had a sense of how that feels.

If we stay on that different time schedule consistently, our bodies will eventually adjust to the new schedule, and it will become our normal pattern. But if those schedules change frequently, as they do for workers on a swing shift, the normal rhythms will have a difficult time keeping up with changes, leading to

fatigue. In addition, the changes may interfere with normal sleep and other activities, compounding the problem.

Medical science has not agreed upon exactly how much sleep the average person needs, but most studies conclude that somewhere between seven and eight hours a day is optimal.

### Causes and cures

Fatigue can be caused by many factors in the workplace. For example, dim lighting, long shifts, jobs that require many hours of physical activity, high levels of stress and mental activity, excessive noise, and not having enough break time are all factors that can contribute to fatigue.

Some workers may suffer from sleep disorders that cause fatigue during the workday. That can include everything from simple insomnia to a breathing disorder that's called obstructive sleep apnea. Drinking alcohol or caffeine, or using nicotine, can also negatively impact a person's quality of sleep.

Just as there are many causes for fatigue, there are no simple answers for addressing it in the workplace. Employers need to use strategies that are based on the specific situations being encountered by their workers.

Employers can reduce fatigue by improving work environments with adequate lighting, comfortable temperatures, and measures to reduce excessive noise. Changing the nature of tasks to avoid repetition may also be beneficial. Shift work schedules should consider normal rhythms, and supervisors should learn to recognize signs of fatigue.

In addition, workplace wellness programs can make workers aware of the benefits of a good night sleep and strategies for obtaining that sleep. They can also call attention to potential problems such as sleep apnea, helping to head off more serious problems.

Most important, employers need to take fatigue seriously, because it's an actual physical problem and not a lack of character or work ethic, and because it has a significant impact on worker safety and the bottom line. It's something worthy of serious consideration, whether you're watching the day shift arrive, or sitting in seat 12B on final approach to Washington National.

Source: [www.safetymanagementgroup.com](http://www.safetymanagementgroup.com)

## The Hot Facts About Welding and Cutting Safety

It would stand to reason that a device that produces an intense flame or concentrated electric arc would be inherently dangerous. But welding and cutting equipment has become so familiar on many of today's worksites that it's easy to lose sight of the potential hazards.

Safety professionals know that few things are more dangerous than complacency. When workers stop thinking actively about safety and safe operations, they become more likely to cut corners or make simple mistakes. That's why it's so important to reinforce the facts and procedures associated with the safe operation of welding equipment, cutting torches, and related tools.

### Multiple hazards

Welders and those who use torches face a variety of work-related hazards, particularly injuries caused by flying particles, burns from hot metal, and exposure to vapors, fumes, chemicals, and ultraviolet radiation.

While the dangers of flying particles and burns are fairly self-explanatory, the other hazards aren't as widely understood. Depending upon the type of welding and cutting, and upon the properties of the materials that are being worked upon (and any finishes or treatments used on those materials), welders and those using torches may be exposed to a variety of vapors, fumes, and chemicals that may range from merely irritating to deadly. Those workers need to be familiar with potential hazards, and should refer to Material Safety Data Sheets (MSDS) for information and guidance.

In addition, ultraviolet radiation can be extremely harmful to the eyes. Even a few seconds of exposure to a very bright light source, such as a welder's arc, can cause the painful condition known as photokeratitis. Longer-term exposures have been said to cause cataracts.

The first step of welding and cutting safety is to try to use engineering to minimize the hazards. For example, if it's possible to move the welding or cutting task to another location where other workers won't be impacted or where equipment won't complicate the process, moving it will be the safest choice.

If the task can't be moved, steps must be taken to ensure that other workers who are in or enter the area where work is being performed will not be placed at risk.

Typically, screens, shields, or curtains can be used to keep the light, sparks, and particles away from other workers, while fume hoods will vent any dangerous gases. Signs should also be used to alert other workers and worksite visitors to the presence of the hazards.

### Personal protective equipment

Given the potential for injury and limited opportunities to engineer hazards out of the actual tasks to be performed, it's extremely important that workers become familiar with and use the appropriate personal protective equipment (PPE).

Helmets, skullcaps, safety glasses with side shields, goggles, and face shields can provide protection, but each must be matched to the hazards associated with the specific task and materials being used. For example, if the work is being performed in close proximity to live electrical lines, the worker should use PPE constructed from nonconductive materials. Helmet lenses need to be dark enough to provide adequate protection for the brightness associated with the particular type of weld, while allowing the welder sufficient vision to work.

Comfort and maintenance of PPE are important, too. Safety glasses or goggles that aren't comfortable and secure may not provide the right amount of protection, and may distract the worker's attention from the task. Lenses that are pitted or cracked may break at an inopportune time, so they should be replaced immediately.

Workers should also be familiar with basic first aid procedures, especially those for eye injuries. Following the right treatment minimizes the chances that the injury will have more serious complications. Workers should know when to perform first aid themselves, and recognize when emergency care should be performed only by medical professionals.

### Fire prevention steps

The presence of flames and high temperatures makes fire an obvious hazard associated with welding and torch cutting. That's why fire extinguishers and other fire protection equipment should always be close at hand.

Because these tasks rarely take place in ideal circumstances, additional precautions should be made based upon the specifics of the situation. If highly flammable materials are nearby, it's a good idea to station one or more employees to watch for the possibility that those materials might ignite. A welder

who is concentrating on his work may not notice that a stray spark or hot piece of debris has started a small fire. If the workers is welding something on or cutting into one side of a wall or other enclosure, another worker should be stationed on the other side as a preventive measure.

Once again, the worker needs to be aware of the hazards associated with the materials being handled, and of any coating on those materials. Some coatings or other treatments may be highly flammable (or toxic), and should be properly removed from workpieces before welding or cutting begins.

Finally, workers should avoid keeping the supply of flammable gases in the same enclosed spaces where they are cutting or welding. Keeping the supply and shutoff valve outside the enclosed space will reduce the possibility that the source might ignite or worsen an accidental fire in the space.

#### **Handle gases correctly, too**

In addition to operating welding and cutting equipment safely, it's just as important to be familiar with proper steps for handling and using cylinders of compressed gas. When moving or storing gas cylinders, regulators should be removed and valve protection caps should be securely fitted in place (and should never be used as handles for lifting or moving the cylinders).

Individual cylinders should be moved by tilting them and rolling them on their edges. When transported in a vehicle of any kind, they need to remain vertical. Storage locations should be dry, with plenty of ventilation. Oxygen cylinders need to be kept away from combustible materials and cylinders containing fuel gases.

Finally, while cylinders are being used, a safety device such as a chain or cylinder device should ensure that they cannot fall over.

#### **Additional safety for torches**

Before a worker ignites a torch, it's important to inspect the hoses and all connections to ensure that there aren't any leaks or loose fittings. Once those checks have been made, open the oxygen valve, ensure that all of the air has been discharged, and then close the valve. Only after those steps have been completed should the worker open the fuel valve, allow any excess air to be discharged, and then light the fuel with a friction lighter. After the fuel has been ignited, the oxygen valve can be opened and adjusted. The flame itself should be adjusted at the torch valve instead of the regulator.

Most torches have arrestors to prevent the flame from burning back into the torch or tip, which is known as a "flashback." Should that occur, the workers should immediately close the oxygen valve, and then shut off the fuel valve. After the torch cools off, it can be examined and repaired. Finally, never set a torch down -- even for a few moments -- unless the oxygen and gases have been shut off.

#### **Arc welding and cutting safety**

The nature of arc welding cutting creates additional safety hazards, primarily due to the intensity of the electric current used to perform the work. Workers should use only electrode holders that are rated for the maximum current of the electrodes, and that have been designed for the task to be performed. Any holder parts that might carry current must be fully insulated.

Cables must be insulated and flexible, and in addition to handling the maximum current, must be durable enough to withstand the duty cycle. If there are any flaws in the cable, it should be replaced or repaired and tested before being used. Generally speaking, cables should not have any repairs or splices within 10 feet of the electrode holder, unless the splices have been performed with the correct insulation.

Ground returns must also have enough capacity to support the maximum current, especially if a single ground return is being used by more than one worker. Electrical conduits and pipes that carry gases or other flammable materials should never be used as ground returns.

#### **Most of all: never stop learning**

Training should be a constant process for welders and those who work with cutting torches. An ongoing safety program reduces the chances of workers becoming complacent, and ensures that those workers always have the most up-to-date information as new techniques and technologies are developed.

Just as important, a regular safety training program is an equalizer. One worksite may have many welders, each of whom learned his or her trade in a different setting, and each of whom may have a different degree of competence. A training program will ensure that everyone on a site develops the same level of knowledge and applies the same safety and operating procedures consistently.

Source: [www.safetymanagementgroup.com](http://www.safetymanagementgroup.com)

## Heads Up - Another Poster Coming Soon!

A new notice is being issued by the National Labor Relations Board (NLRB) and will become effective on November 14, 2011. The notice will be titled “*Employee Rights Under the National Labor Relations Act*” and most private sector employers will be required to post it near the other labor law posters in your workplace.

The new notice will provide information about the rights of employees to act together to improve wages and working conditions, to form, join and assist a union, to bargain collectively with their employer, and to refrain from any of these activities. It will also provide examples of unlawful employer and union conduct and instruct employees how to contact the NLRB with questions or complaints.

Excluded from coverage under the NLRA are public sector employees, agricultural and domestic workers, independent contractors, workers employed by a parent or spouse, employees of air and rail carriers covered by the Railway Labor Act, and supervisors.

Even if you don’t have a union at your workplace you will be required to post the new notice on November 14, 2011.

The NLRB will prescribe the exact format, type size, and style of the posting, which will be at least 11 x17 in size. While we haven’t seen this yet, it will most likely be a supplement that we recommend you post next to your 2011 Labor Law Poster.

Source: [www.employers.org](http://www.employers.org)



One World Trade Center, formerly known as the Freedom Tower, is the lead building of the new World Trade Center complex in Lower Manhattan in New York City. Construction began in April 2006. Upon completion in 2013, it will be the tallest building in the United States.

Photo Credit: [www.rebuildgroundzero.org](http://www.rebuildgroundzero.org)

