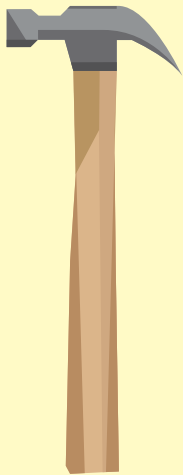
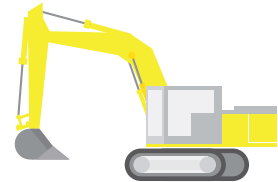
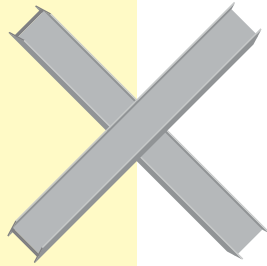
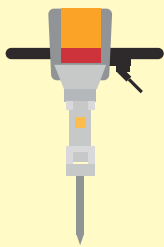


Your Guide to OSHA's Construction Safety Regulations



Your Guide to OSHA's Construction Safety Regulations

The construction industry tops the list when it comes to workplace injuries and fatalities, even with tightened safety regulations over the years. In 2013, one in five worker deaths in the United States (or 20.3 percent) happened in construction, according to the [Occupational Health and Safety Administration \(OSHA\)](#). That amounts to almost 800 avoidable deaths.

More than half of the deaths resulted from what OSHA calls the “Fatal Four.” Broken down, the numbers from 2013 are chilling:

Falls - 294

36.9 %

Struck by object - 82

10.3 %

Electrocutions - 71

8.9 %

Caught-in/between - 21

2.6 %

Eliminating construction industry deaths from the “Fatal Four” could save more than [468 U.S. workers' lives](#) every year, given that the death toll stems largely from non-compliance with safety regulations. Accordingly, OSHA has committed itself to minimizing these fatalities, partly by ramping up its penalty fees.



The fine for a violation that causes an injury but not a death (what OSHA defines as an “other than serious” violation) is \$7,000, as John DeMerceau explains in [this article](#). Willful violations — those that risk employee health or safety — can incur a penalty of \$5,000 and fines up to \$70,000. In the tragic event that an employee’s life is lost, violations become criminal offenses and can carry fines of up to half a million dollars.

From electricians to pipefitters, construction workers of every stripe need to know their helmet from their high-impact boots. Most are aware of the risks and appreciate an employer who puts worker safety at the top of the priority list. It’s good for morale and productivity, and it’s the only way to shore up your profit line. “Businesses spend \$170 billion a year on costs associated with occupational injuries and illnesses — expenditures that come straight out of company profits,” OSHA says.

The bottom line? A safe workplace saves lives and saves money.



This ebook walks you through the most common (and costly) hazards in the construction industry. It provides budget-friendly tips and strategies so you can manage and stay ahead of the requirements.



What You’ll Learn

- Information about frequently cited violations
- How to prevent the most common hazards
- Methods and tools to help you comply in efficient, budget-friendly ways





PRIORTIZE THE MOST COMMON CONSTRUCTION HAZARDS

Construction sites are full of hazards, from improperly used nail guns to dangerous materials like silica and asbestos lurking in old structures. While you can't dismiss a single safety aspect on your site, you need to use your time wisely — and prioritize the hazards that cause the most harm.

Read on for tips to help you stay on top of the Fatal Four.

Falls

Over the past few years, fall prevention has been a top focus area of OSHA. It's not surprising, given that **falls cause more fatal and non-fatal injuries than any other safety hazard**. Of 796 construction fatalities in 2013, 294 were from falls, OSHA says.

As a result, OSHA has launched major initiatives to raise awareness about injuries and deaths by falls — most of which are almost entirely preventable.

One initiative is the [National Safety Stand-Down](#), a voluntary event that started in 2014 and is on its way to becoming an annual event. The first Safety Stand-Down reached more than 1 million construction workers, who set aside time during the work day to learn about fall hazards and preventions.

How does it work?

“Companies can conduct a Safety Stand-Down by taking a break to have a toolbox talk or another safety activity, such as conducting safety equipment inspections, developing rescue plans, or discussing job specific hazards,” OSHA explains on its website. Employers who participate then provide feedback to an OSHA forum and earn a Certificate of Participation signed by Secretary of Labor Thomas E. Perez.

Taking part in a Stand-Down will not only help you improve your safety measures but also send the message to your workers that you care about their health and well-being. This message is crucial, and can go a long way in helping your workers take extra precautions to follow safety protocols.

Want to hold your own Safety Stand-Down event? Prepare with these three sources from OSHA:

- [Suggestions to Prepare for a Successful Stand-Down](#)
- [Stand-Down Frequently Asked Questions](#)
- [2014 National Safety Stand-Down Highlights](#)



Other ways to prevent falls

Of course, participating in a Stand-Down isn't the only way to prevent falls. It's critical to evaluate your entire workplace. When you do, pay special attention to the most common causes of fall-related injuries:

- Unprotected sides, wall openings, and floor holes
- Improper scaffold construction
- An unguarded protruding steel rebar
- Misuse of portable ladders

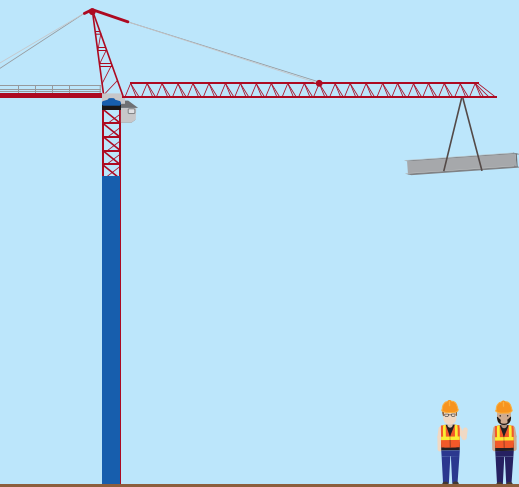
Create a fall-protection policy and train employees to set up and always use the proper fall-arrest and fall-protection systems. For more in-depth resources on fall prevention, OSHA has many [educational and training resources](#) to help you learn more.

Struck-By Hazards

“Struck-by hazards” situations aren't always obvious. Many are hidden, making them easy to overlook. While working high on scaffolds, for instance, the risks are more obvious than while walking across the work site after a shift — a prime time for “struck-by” accidents to occur.

“Struck-by accidents are the number one cause of injuries at construction sites and the number two leading cause of death,” explains construction safety expert Dan Clark in a [Safety Brief podcast](#).

Three-fourths of all fatalities in this category involve heavy equipment like trucks or cranes. Other [common causes of struck-by injuries](#) are associated with vehicles, falling or flying objects, and the construction of masonry walls.

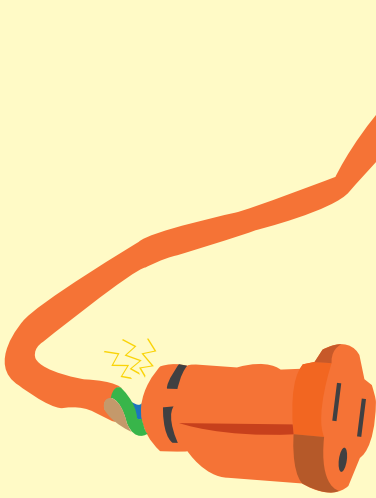


When are workers at risk? Workers are at risk anytime work is being performed overhead, whether on a scaffold or crane; anytime they’re around power tools or other equipment that can omit a flying, falling, swinging, or rolling object, such as a nail gun or chipper; and anytime they’re in the line of vehicles or traffic.

To prevent struck-by hazard injuries, adhere to what OSHA considers [basic safety measures](#) in this area:

- Wear hardhats
- Stack materials and secure tools to prevent them from sliding, falling, or collapsing
- Use protective measures such as toeboards and debris nets
- Wear safety goggles, glasses, or face shields
- Inspect your tools and all components of your equipment regularly
- Ensure that all workers have proper tool training
- Avoid working beneath loads being moved by a crane
- Post warning signs and set up barricades around all hazard areas
- Do not exceed lifting capacity on cranes

Also familiarize yourself with [real-life struck-by hazard stories](#). As hard as these are to read, share them with your crew, for they can help you spot some of the “hidden” struck-by hazards in your workplace you might not otherwise consider.



Electrical Hazards

Working with electricity is complicated, and [stories abound](#) about electricity-related accidents on construction sites — and the enormous penalty fees and damaging lawsuits that follow.

Each year, an estimated 350 people die from an electrical-related injury. Electrical hazards on construction sites can cause shock, explosions, traumatic injuries like burns, and electrocution. Often, electrical work takes place in elevated environments (e.g., cranes, scissor lifts, cherry pickers), so it comes with the added risk of falls.



As new technologies emerge and change how we use electricity, the job of electricians is growing more challenging. Electricians have to read and interpret mechanical drawings and electrical specifications; form and test circuits; pull wires through conduits; install fiber optic systems; and more. **The complexity of the work makes ongoing electrical training and assessment a core part of any safety program.**

[OSHA makes it clear](#) that workers can't be anywhere near an electrical circuit unless properly protected. Failure to follow the regulation puts your employees at unnecessary risk. Pay attention, particularly, to the [most common causes](#) of electrical injury. These include:

- Contact with power lines
- Lack of ground-fault protection
- Missing or discontinuous path to ground
- Improper equipment usage
- Improper extension cord use

Make sure all of your workers, even those who do electrical work, understand the basics of [how electricity works](#).

For a quick overview of how to prevent the most common causes of electrical injury, OSHA's [e-learning tool for construction](#) breaks down dense information in clear ways, without simplifying how to keep workers safe. Also bookmark and become a regular reader of [EC&M](#) (Electrical Construction and Maintenance), a publication that provides up-to-the-minute, electricity-related news, safety guides, tips — and some fun quizzes (like this one on [metal conduit grounding](#)) to keep your skills sharp.

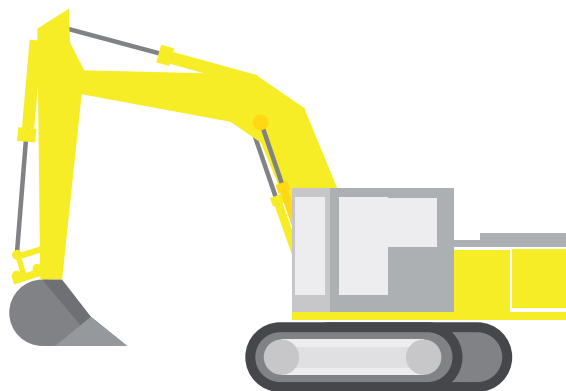
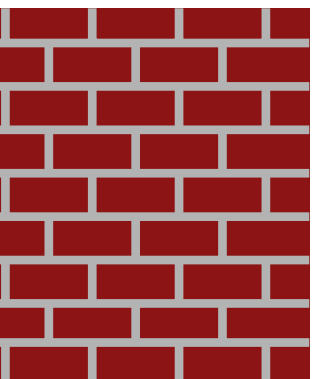


Caught-in/between Hazards

Caught-in/between hazards make us cringe. They involve being pinned between heavy equipment, machinery, materials — essentially any kind of moveable and immovable object that causes employees to get pinched, squeezed, suffocated, or crushed.

You want to do everything you can to prevent caught-in/between accidents, which are among the most gruesome of construction site tragedies. They involve horrific things like trapping a body part in a machine rotator; being smothered under soil as a result of a cave-in; getting crushed between a semi-trailer and a dock wall; or drowning in sewage that wasn't properly diverted or controlled.

Common causes are the use of improperly guarded heavy equipment, machines, or power tools. Situations where a piece of heavy equipment has rolled over and put an operator at risk fall into this classification, as well. Any vehicle using a [rollover protective structure \(ROPS\)](#), such as earth-movers, pickup trucks, and dump trucks, is typically subject to regulations specific to these kinds of hazards.





Excavation sites and trenches, where soil tends to be unsteady, pose high risks for caught-in/between accidents. Excessive rain, heavy wind, or even vibration from trucks and equipment at the construction site can increase the risk at these sites by making the ground prone to shifting.

You can prevent a caught-in/between tragedy at your construction site with these tips [from Equipment World](#):

- Identify the hazards on your site that present risks.
- Provide workers with the proper personal protective equipment (PPE).
- Inspect and maintain all of your equipment regularly.
- Never use equipment without ensuring that all safety guards are in place.
- Avoid loose clothing, which can get caught in equipment.
- Maintain a safe distance from machinery that you're not operating, and stay outside of the swing radius of equipment.
- Make sure the operator can see you at all times.
- Use barricades and warning signs.
- Keep a safe distance when materials are being moved overhead.

Of course, preventing caught-in-between accidents varies by worksite. It's up to you as an employer to put a solid prevention plan in place.



STAY ON TOP OF REGULATIONS

There's plenty to pay attention to with the top four safety hazards alone. This [complete list](#) of the most commonly violated OSHA standards includes additional areas you will need to assess and stay on top of, from machine guarding and respiratory protection to [hazardous chemicals](#).

Knowing and abiding by every risk relevant to your work presents a serious challenge, but the high safety stakes and legal ramifications make compliance mandatory. These tips can help you stay on top of the regulations:

1. Utilize the Federal Register

It takes time and patience, but you can keep up with OSHA regulations by checking the [Federal Register](#), which publishes standards as they are adopted, along with any corrections, insertions, deletions, and amendments. Sign up for an annual subscription through the [U.S. Government Printing Office](#).



2. Set up a safety steering committee

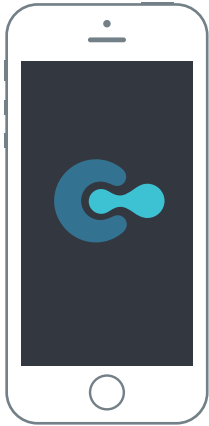
You want to involve and use your staff in your safety program as much as you can. One way is to create a “safety steering committee” made up of your employees. As [this article](#) in Construction Business Owner advises, consider excluding anyone in a supervisory or managerial role from joining the committee, and limit it to your hourly employees.



This gives your hourly employees a chance to voice safety related concerns and ask for clarification on safety matters. Have them meet regularly as a group to discuss safety and contribute ideas for improving your overall safety program.

3. Get organized

Keeping up with OSHA regulations and training your employees to follow suit involves many steps and is time-consuming. Given the broad range of areas to track and protocols to implement, it's not uncommon for something to fall through the cracks.



Treat your safety program like you treat your operations. If your construction company is small-to-mid-sized, print out a copy — and read from cover to cover — [OSHA's Small Business Handbook](#). It's full of practical, budget-friendly strategies that can help you comply without breaking your bank. It also includes handy templates and forms, such as self-inspection checklists and an action plan worksheet, to help you take a systematic, organized approach.

While the OSHA Small Business Handbook is useful in many ways, it lacks advice on what technologies and tools can streamline your approach to compliance. The forms provided in the handbook are all paper-based, and as the next part of this eBook explains, there are far more efficient and effective ways to track and manage safety.

EMBRACE TECHNOLOGY TO MAKE COMPLIANCE EASIER

Today, technological innovations have emerged to help construction professionals keep up with relevant OSHA regulations more efficiently. Tech-savvy employers and workers are using specialized mobile apps on their tablets and smartphones to address and meet safety protocols. The apps are essentially mobile versions of the old paper forms used to track compliance. But, they come with far greater uses.

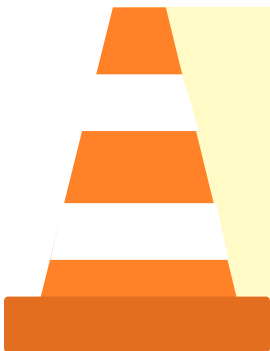
A supervisor might, for example, use a mobile [fall protection checklist](#) to review and answer questions about guardrails and confirm that they're in place, or to find out whether personal fall arrest systems need to be in use. Similar apps exist for [electrical safety considerations](#), [rollover protective structures](#), and everything from [cranes](#) and [conveyors](#) to [concrete](#).

Make a case for change

Whatever the construction job type, equipment, and work environment, there's a good chance you'll find a mobile app built to make OSHA compliance easier to manage. But your team may need some help making the switch. A [2014 survey](#) of more than 2,000 builders by JBKnowledge and Texas A&M shows the construction industry lagging behind other industries in using technology:

- Technology budgets are lower in construction than any other industry.
- Only 4.1 percent of construction professionals use cloud-based platforms during project phases like bidding and estimating.

Industry experts agree, however, that a tech revolution in construction is underway. [This article](#) from Computer Weekly explains:



In general, the construction industry has been reluctant to embrace the benefits of IT. However, builders are now beginning to be dragged into the 21st century by the need to collaborate more closely with their more IT-savvy colleagues, the architects and engineers responsible for the ideas behind their work.

The change is for good reason. When paired with cloud-based platforms, mobile apps make it remarkably simple to collect data, control transactions, and manage business practices. They're also [easier and less expensive to implement](#) than many people realize.

Another positive effect of moving your business information to mobile is [the serious reduction in paperwork](#). Consider, for example, the traditional way of managing OSHA compliance, which involves reviewing regulations, working up paper checklists, as well as making and circulating copies to the right people. **All it takes is for one person to forget his or her copy of a required form, and your compliance process could be delayed by days.**

Give everyone access to shared documents and checklists via their smartphones, and see how much faster and smoother the compliance process goes. Saving time means saving money — and that’s a plus in any economy.

Don’t let compliance slip

The reason for OSHA’s many compliance guidelines boils down to this: keeping your workers safe. No company wants to invite the injury or death of an employee, to incur fines and penalties, or be taken to court.

Don’t be intimidated by the need to keep up with regulations or the demands of creating an effective safety program. Use mobile apps to ease the burden and take your safety program to a new level.

Canvas offers [80+ mobile apps](#) created by and for construction workers and designed specifically with OSHA regulations in mind. Try some of our existing apps, convert your paper forms into apps, or send us your forms and let us create the apps for you. Do it all by signing up for a [30-day free trial](#).

TRY IT FREE

