

THE MOST EXPENSIVE ELECTRICAL CITATIONS

If your organization relies on heavy machinery or requires any sort of electrical work or electrical machinery, violating standards such as [NFPA 70E](#) could result in an expensive fine from the Occupational Safety and Health Administration (OSHA).

In fact, OSHA citations are more expensive today than ever before. In 2010, OSHA increased the cost of penalties for those companies charged with violating electrical safety rules. Under the Severe Violator Enforcement Program (SVEP), fines for some serious violations [increased from \\$1,000 to \\$3,000-\\$4,000](#).

WHICH ELECTRICAL HAZARDS COST YOUR OPERATION THE MOST?

While any electrical citation can cost thousands of dollars, some citations are more expensive than others — they can cost organizations hundreds of thousands of dollars or more. While you want to avoid any electrical citation, here are a few standards that when broken could cost you the most.

1. WIRING SAFETY STANDARDS.

OSHA reports that the eighth most frequent cited standard in 2014 involved standard number 1910.305 (Electrical, Wiring Methods). This standard requires, among other things, proper grounding of electrical equipment and safe use of nonconductive coating on contact points and other surfaces.

Between October 2013 and November 2014, [OSHA cited \\$126,286 in penalties](#) for wiring issues in the mining, quarrying, and oil and gas extraction industry. They cited \$2,550 in the same time period for utility companies. The construction industry was given penalties of \$529,520 for the same wiring issues and businesses in the manufacturing sector saw \$1,574,180 in penalties. Clearly, this citation is not only common, but also expensive.

The penalty can become even more financially challenging for organizations when OSHA sets firm deadlines for fixing safety issues and paying fines. If a company has wiring issues and OSHA sets a deadline of fifteen days from the date of the citation (which is quite common with the agency), an organization may have to scramble to find qualified electricians to fix the issue.

In addition, the agency usually only gives organizations a short time to pay a penalty — or contest it. This makes it difficult to budget for the penalty and prevent damage to your company's cash flow. If a company decides to appeal an OSHA citation, there are legal fees to consider and only a limited time to file an appeal.

2. GUARDING STANDARDS FOR MACHINERY.

Under standard number 1910.212, employers are expected to provide adequate guarding around machinery that could pose a hazard to employees and visitors.

Guarding machinery is often seen as a rule that affects factories, warehouses, and other workplaces. This standard is meant to prevent amputations or other dangers caused by moving parts or flying debris. However, in a workplace with electrical machinery, this rule is also intended to protect workers from flying sparks and arc blasts. To ensure high voltage safety, any piece of equipment with an arc flash or arc blast danger should be isolated from the workplace to ensure that only qualified workers are allowed near the equipment. This also applies to equipment with high voltage, or any equipment that could produce sparks.

OSHA takes this standard very seriously. In fact, it was the ninth most cited regulation for most of 2014. In early 2015, [Ashley Furniture faced \\$1,766,000 in proposed penalties](#) after OSHA inspectors found a number of workplace and electrical safety violations at the company's Wisconsin plant. Among those violations were multiple violations of standard number 1910.212, each carrying a hefty \$70,000 proposed fine.

A citation like this places companies at risk of being placed in the Severe Violator Enforcement Program (SVEP) – a designation that OSHA recommended Ashley Furniture join. When OSHA feels that a company is willfully and repeatedly violating electrical safety rules, it can also place companies on this list. As part of the SVEP, a company can expect more inspections and closer supervision. This typically leads to more effort and money spent to bring a company up to code.

3. GENERAL ELECTRICAL STANDARDS.

OSHA's tenth most cited standard for most of 2014 was standard number 1910.303 (Electrical, General Requirements). This standard requires employers to ensure that "Electric [equipment shall be free from recognized hazards](#) that are likely to cause death or serious physical harm to employees."

This safety standard is designed to ensure high voltage safety and overall workplace safety for employees working with electrical equipment. It covers dangers not otherwise specified in the rest of OSHA literature. Often, when an electric safety violation is cited, this rule will also be cited and penalties are compounded. For example, in 2014, OSHA suggested [fines of \\$102,000](#) against Saehaesung Alabama Inc., a car parts company. The fine was partially because the company allegedly had damaged and potentially unsafe electrical equipment at their facilities. Many companies with specific electrical safety violations will also be cited under this standard.

In many cases, OSHA will also cite penalties under the General Duty Clause of the OSHA Act as well as specific penalties under electrical standards. The General Duty Clause requires employers to provide a safe workplace for all their workers. When safety violations of any kind are uncovered, OSHA can cite penalties under this and other standards. The penalties and citations can quickly add up.

4. LOCKOUT/TAGOUT STANDARDS.

Lockout/tagout (standard number 1910.147) was OSHA's sixth most cited standard during most of 2014. These rules govern electrical equipment maintenance. When a machine requires any sort of maintenance, this rule states that the machinery or equipment must be de-energized first to reduce shock and electrical dangers. Workers must test to ensure there is no charge, if possible. They must then install or use devices that will track and alert workers about electrical charges.

Lockout/tagout devices that keep others from turning on or touching the equipment are also a requirement. There are many exceptions to this rule, in part because not all machines and equipment can be fully de-energized for maintenance.

OSHA has identified this as a "hot topic" in the past and has cracked down on this issue, levying considerable fines against organizations that violate electrical safety rules. This is often because incorrect maintenance on machines leads to serious injuries.

Getting cited for a tagout or lockout violation is expensive and can hurt your company by grinding production to a halt and requiring a new system. Usually, OSHA will find multiple safety violations involved with a tagout and lockout problem.

Even single citation for this standard is expensive. For example, the agency [charged Iberdrola Streater Cayuga Ridge South Wind Farm over \\$378,000](#) for tagout and lockout problems, alleging that the company violated tagout requirements. They claimed the company failed to meet standards for "isolating energy sources during servicing operations."

5. PERIODIC INSPECTION REQUIREMENTS.

OSHA requires any workplace with electrical hazards to conduct regular inspections to manage hazards and to manage energy control processes. Employers are also required to conduct assessments to determine the correct safety rules, training, and equipment their employees need.

Failure to follow this rule can result in considerable fines. For example, in 2015, [the U.S. Postal Service was fined \\$7,000](#) after OSHA inspectors uncovered only one violation of this rule at the Boston Processing and Distribution Center. This citation can easily become even more expensive when there are multiple occasions for inspection that have been ignored, causing fines of a few thousand dollars to add up. Another danger is that inspectors can catch violations and can

help businesses comply with standards. When inspections don't take place, these violations stay in place until OSHA arrives. At the Boston Processing and Distribution Center, OSHA cited a total of \$357,000 in penalties, mostly for electrical violations. Some of these citations could have been avoided with regular inspections.

6. LACK OF ADEQUATE TRAINING.

Under standard numbers 1910.331 and 1910.332, workers who are employed near electrical hazards need to be trained by qualified instructors in order to stay safe on the job. OSHA lets only "qualified workers" work with or near energized conductors and parts. OSHA defines qualified workers as those who have been trained to avoid the electrical hazards and other dangers of energized equipment. Traditionally, this has meant that only workers with NFPA 70e certification are permitted to work with electrical equipment. To ensure that only qualified workers are permitted near electrical hazards, OSHA may require workplaces to isolate work areas that have electrical dangers.

In 2010, OSHA fined the U.S. Postal Service [\\$430,000](#) after employees at a Maine facility complained about unsafe working conditions. Part of the problem was that workers near electrical equipment were not provided with training and were not given the proper equipment.

7. PERSONAL PROTECTIVE EQUIPMENT (PPE).

OSHA requires workers to be given the correct protective equipment for their jobs. It's not just about handing workers safety goggles or other equipment. Under OSHA rules, employers are expected to perform an assessment first to see what hazards are present. Based on the results of the assessment, they are expected to provide not only PPE but also training to employees about the proper use of the protective equipment. In addition to all these steps, companies must have proof or paperwork to show OSHA inspectors. The paperwork must show that all of the steps took place.

In 2015, the [NFPA 70E committee made changes to the standard](#) to place more emphasis on PPE, among other things. In section 130.2.(A)(4), the standard now defines PPE rules for situations involving devices of less than 600V devices. Under the new rules, professionals can use their own judgment when wearing arc-rated PPE near these devices when certain situations are met. The changes to the standard have also clarified arc flash PPE tables, so workers know what protective gear to wear in every situation. For example, when an arc flash hazard is possible, employees are expected to wear all arc flash PPE.

PPE citations are often expensive because they usually involve multiple citations— with multiple employees and multiple pieces of equipment involved. Companies can also drive costs up even further by paying for equipment and training but failing to document it for OSHA.

8. SIGNAGE REQUIREMENTS.

Electrical hazards need to be clearly marked by signs. To ensure high voltage safety, areas with high voltage are required to be isolated from general workers and clearly marked with warning signs. Other dangers – such as transformers, connection boxes, metal-enclosed switchgear, pull boxes, and other hazards – should also have clear signs to warn workers about any electrical danger.

Not having proper signs on electrical hazards and equipment can be costly because it can lead to penalties and legal action. If a worker is injured because there was a lack of proper signs in the workplace, they can hire a personal injury attorney to launch a lawsuit against the company. This can easily end up costing more than the OSHA penalty.

9. ARC FLASH SAFETY.

Both OSHA and the NFPA frequently cite organizations for arc flash hazards, and the citations are expensive. Part of the reason this violation is so expensive is because of the risks involved. Arc flash blasts can generate temperatures of 36,000°F and can produce enough force to damage walls and ear drums.

Citations resulting from arc flash issues can be especially costly, because they usually result in multiple related citations. For example, in 2013, OSHA suggested [fines of \\$119,000 against Pure Power Technologies LLC for electrical arc flash issues](#). The agency cited seven violations against the organization, including citations for lack of maintenance and inspection, lack of training, lack of safety equipment, violation of safety practices, and premature re-energizing of circuits.

HOW TO AVOID EXPENSIVE OSHA FINES

OSHA penalties can hurt your brand, can be costly to remedy, and can cause considerable downtime. The citations themselves can also add up to hundreds of thousands of dollars, making preventative measures highly important and cost-effective. Here's how to make sure your organization is complying with OSHA rules:

- **Regularly walk through your operations.** Check for potential safety and electrical issues and have employees report any possible problems they see.
- **Keep more documentation than you think you need.** Who has NFPA 70e certification at your operation? What is your lockout/tagout process? Make sure you have everything on paper. If maintenance work of any kind must be done, draw up a document that outlines the work that must be done as well as which qualified workers will do it. After the work is complete, have your team sign off on what was completed. OSHA will want to see documentation in any investigation. Having plenty of paperwork on hand proves that you take electrical safety seriously.
- **Make sure workers are not taking shortcuts.** According to [NIOSH](#) (National Institute for Occupational Safety and Health), hundreds of electricity-related deaths occur from 120V systems each year, partly because workers don't take precautions. Even if you have written safety policies, in-house training, and every safeguard in the books, you can still see worker injuries, investigations, and hefty fines if your workers aren't following the rules.
- **Hire professionals.** Don't only rely on your own workers to report hazards. Work with electrical safety consultants and other professionals to ensure you are following all the rules. For example, you can work with the professional trainers at [Technical Skills Development Services](#) to ensure that all your training meets OSHA regulations.

Remember that for every OSHA standard, there are exceptions and subsections. It can be difficult to figure out how all the rules apply to your specific operation. A professional can not only make sure you comply with every rule, but the paperwork involved can also show that you have taken all reasonable steps to obey safety regulations.

- **Train employees in electrical safety and make sure they have their NFPA 70e certification.** Highly trained workers understand the importance of electrical safety and may be more likely to follow all protocols. Offering additional training to your workers also shows OSHA and other agencies that your organization has done everything reasonable to promote safety in the workplace.

You don't want your organization to be issued one of the [40,000 citations OSHA issues each year](#). Make sure your workers have NFPA 70e certification if needed, and conduct professional training in the workplace as well as necessary assessments and inspections.