**OSHA’s most-frequently cited standards: How to avoid becoming a statistic**

The following is a list of the top 10 most frequently cited OSHA standards following inspections of worksites by federal OSHA for fiscal 2014 (Oct. 1, 2013, to Sept. 30, 2014).

You’ll note that the OSHA standards are ranked by the number of total citations issued, not penalty amount. For example, scaffolding (#3) violations totaled $8,395,894 in penalties, based on 4,707 citations. Hazard communication (#2) violations totaled $3,050,385 in penalties, based on more citations: 5,685. OSHA’s penalties reflect the severity of the violation and the degree of risk addressed by the standard. Scaffolding risks can be fatal. Hazard communication violations are often paperwork snafus. Many of the top ten most-frequently cited OSHA standards are a product of “familiarity breeds contempt.” In other words, the standards address every day, very typical risks, such as using ladders, powered industrial trucks, machine guards and electrical wiring. Violations occur in part because employers and their employees use these tools and devices so frequently they become “habituated” – or complacent – about the dangers.

1. [**Fall Protection**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10757) **- 1926.501 (construction standard)**

Total citations: 7,313. Total penalties: $20,582,537. Top three most cited industries: specialty trade contractors; construction of buildings; heavy and civil engineering.

**Compliance issues:** It’s important to always keep in mind OSHA requires fall protection programs when employees are working at heights greater than four feet in general industry, five feet in shipyards, and six feet on construction projects. Fall protection harnesses and lanyards are often employers’ preferred means of preventing falls, as opposed to engineering controls such as toe boards and railings, but the PPE is frequently not issued to workers, or not worn properly by workers – especially on residential construction projects. Incorrect use includes linking lanyards in a chain to lengthen the scope of work, and simply not tying off. Tie-off considerations are crucial. One of the most important aspects of personal fall protection systems is fully planning the system "before" it is put into use. Probably the most overlooked component is planning for suitable anchorage points. Such planning should ideally be done before the structure or building is constructed so that anchorage points can be incorporated during construction for use later for window cleaning or other building maintenance. If properly planned, these anchorage points may be used "during" construction, as well as afterwards. Employers and employees should at all times be aware that the strength of a personal fall arrest system is based on its being attached to an anchoring system which does not significantly reduce the strength of the system (such as a properly dimensioned eye-bolt/snap-hook anchorage). If a means of attachment is used that will reduce the strength of the system, that component should be replaced by a stronger one, but one that will also maintain the appropriate maximum arrest force characteristics. Tie-off using a knot in a rope lanyard or lifeline (at any location) can reduce the lifeline or lanyard strength by 50 percent or more, according to OSHA. A stronger lanyard or lifeline should be used to compensate for the weakening effect of the knot, or the lanyard length should be reduced (or the tie-off location raised) to minimize free fall distance, or the lanyard or lifeline should be replaced by one which has an appropriately incorporated connector to eliminate the need for a knot, according to OSHA. Tie-off of a rope lanyard or lifeline around an "H" or "I" beam or similar support can reduce its strength as much as 70 percent due to the cutting action of the beam edges, according to OSHA. Use should be made of a webbing lanyard or wire core lifeline around the beam; or the lanyard or lifeline should be protected from the edge: or free fall distance should be greatly minimized. Tie-off where the line passes over or around rough or sharp surfaces reduces strength drastically. Such a tie-off should be avoided or an alternative tie-off rigging should be used. Such alternatives may include use of a snap-hook/dee ring connection, wire rope tie-off, an effective padding of the surfaces, or an abrasion-resistance strap around or over the problem surface.

Worker training is also critical: one, because fall protection PPE is frequently viewed as a hassle to wear, a time-consuming inconvenience; two, workers don’t think falls will happen to them; three, proper tying off or anchoring is not done; and four, falls do happen and are often fatal.

**Compliance assistance:** “Fall Protection in Residential Construction;” “Fall Protection in General Industry;” “Prevention Videos: Construction Hazards” – OSHA A- Z Index: Fall Protection - [www.osha.gov](http://www.osha.gov)

**2**  [**Hazard Communication**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099) **- 1910.1200**

Total citations: 5,685. Total penalties: $3,050,385. Top three most cited industries: specialty trade contractors; fabricated metal product manufacturing; repair and maintenance.

**Compliance issues:** In 2012 OSHA’s hazard communication standard version 2.0 was introduced, the Globally Harmonized System (GHS) for communicating information on hazardous substances. GHS brings with it new labeling requirements for toxic chemicals, and required use of a standardized, 16-section safety data sheet (SDS) for toxic chemicals (replacing the old material safety data sheets). Lack of hazcom training and lack of a written hazcom plan are problem areas. Every employee must receive hazcom training when first hired, and retraining if chemical hazards change. Employers must identify and evaluate all potential chemical hazards on site, and share critical information with employees. One sticking point: employers must have a safety data sheet for consumer chemical products, even if purchased at a retail store, if used for industrial purposes.

**Compliance assistance: “OSHA** Hazard Communication Standard 6/1/15 Enforcement Guidance;” “OSHA briefs: Safety Data Sheets;” “OSHA Label and Pictogram brief;” “OSHA December 2013 Training Fact Sheet;” “OSHA Hazard Communication: Steps to an Effective Hazard Communication Program for Employers That Use Hazardous Chemicals Fact Sheet” – [www.osha.gov/dsg/hazcom/index.html](http://www.osha.gov/dsg/hazcom/index.html)

**3** [**Scaffolding - 1926.451**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10752) **(construction standard)**

Total citations: 4,707. Total penalties: $8,395,894. Top three most cited industries: specialty trade contractors; construction of buildings; heavy and civil engineering construction.

**Compliance issues:** OSHA requires a competent person to be designated to oversee the use of scaffolding. Compliance problems with scaffolding include not using proper planking; not setting up the scaffolding in a level position; using scaffolds too close to electrical power lines; and employees on scaffolding failing to use fall protection equipment.

**Compliance assistance:** “Narrow Frame Scaffolds” – OSHA A-Z Index: Scaffolding - www.osha.gov; Scaffold OSHA e-tool - A-Z Index Scaffolding - www.osha.gov

1. [**Respiratory Protection**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716) **- 1910.134**

Total citations: 3,430. Total penalties: $2,137,927. Top three most cited industries: fabricated metal

product manufacturing; specialty trade contractors; repair and maintenance.

**Compliance issues:** Employers sometimes make the mistake of assuming a respirator is a respirator and any mask will do. Not so. Employers must select and have employees wear the proper type of respirators for given exposures, which vary greatly in both toxicity and length of an employee’s exposure to the agent. All respirators used must be approved by NIOSH. The simple fact is too many workers wear the wrong respirator for the exposure they face. For instance, a dust mask is not appropriate for spray, mist or vapor protection. A missing link in some respiratory protection programs is the failure to have a written plan that covers employee training, respirator maintenance and cleaning, employee fit testing, and safe change-overs to new filters when the old ones become too contaminated. One sticking point: if an employee voluntarily chooses to wear a respirator, even though it is not required, Appendix D of the respiratory protection standard must be followed. Appendix D is mandatory, and outlines steps to ensure safe use of the respirator.

**Compliance assistance:** “Major Requirements of OSHA’s Respiratory Protection Standard;” “OSHA Respiratory Protection: Frequently Asked Questions;” “Respiratory Protection OSHA videos,” “Respirator Change-Out Schedules;” “OSHA Respiratory Protection eTool” – [www.osha.gov/dte/library/materials\_library.html#respiratoryprotection](http://www.osha.gov/dte/library/materials_library.html#respiratoryprotection)

1. [**Powered Industrial Trucks**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9828) **- 1910.178**

Total citations: 2,859. Total penalties: $4,336,121. Top three most cited industries: fabricated metal product manufacturing; merchant wholesalers, durable goods; specialty trade contractors.

**Compliance issues:** Use of powered industrial trucks is too often taken for granted, given their extensive use in industry and construction. OSHA requires operators to be trained and certified, and some companies are lax in obtaining certifications for operators; some may rubber stamp certifications without proper training. Operators must drive only the vehicles they have been trained for (training authorization). Sometimes an employee will suddenly hop into a fork lift without authorized training or a certificate because, “Hey, I need that moved now, can you do it for me?” Also, driving in one site may differ significantly from driving in a different environment with different terrain, work flow or obstacles. Employers must walk operators through each new environment. OSHA emphasizes truck maintenance and employers must follow the truck manufacturer’s maintenance instructions. Employers sometime think this standard only applies to fork lifts. Wrong. It covers other powered vehicles such as motorized hand trucks and pallet trucks. Operators’ failure to use seatbelts is another common violation. Seat belts keep operators in the truck cage if it tips over, and prevent them from being injured or killed if they fall out or jump out. The lack of using a seat belt is often discovered by OSHA compliance officers investigating a powered industrial truck accident.

**Compliance assistance:** “OSHA Powered Industrial Truck eTool” – [www.osha.gov/STLC/etools/pit/index.html](http://www.osha.gov/STLC/etools/pit/index.html); “OSHA Operator Training Slide Presentation;” “OSHA FAQs about Powered Industrial Truck Operator Training” – [www.osha.gov/dte/library/materials\_library.html#poweredindustrialtrucks](http://www.osha.gov/dte/library/materials_library.html#poweredindustrialtrucks); “OSHA Sample Daily Checklists for Powered Industrial Trucks” – [www.osha.gov/SLTC/poweredindustrialtrucks/index.html](http://www.osha.gov/SLTC/poweredindustrialtrucks/index.html)

1. [**Lockout/Tagout**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9804) **- 1910.147**

Total citations: 2,847. Total penalties: $7,609,380. Top three most cited industries: fabricated metal product manufacturing; food manufacturing; plastics and rubber products manufacturing.

**Compliance issues:** Employers sometimes make the mistake of thinking OSHA’s LOTO standard only applies to electrical energy. Wrong. The standard must be followed when employees are exposed to any energy source – fluid power, pneumatic power, steam, etc. Before maintenance or repairs of energized equipment, the equipment must be secured, locked, and tagged. LOTO procedures can be time-consuming and workers will sometimes take short-cuts. Procedures must be the subject of employee training, they must be enforced, and audits should be regularly conducted to ensure compliance. Employers should pay attention to lockouts during shift changes. Sometimes a new shift starts and personnel are not aware that an employee from the retiring shift is still at work on potentially energized equipment. The new shift fires up the equipment or process and a very severe accident can follow. Many OSHA LOTO violations are issued after accidental start-ups occur and an employee is injured or possibly killed. Not all energized equipment is easy to lock out; employers sometimes must be creative in devising secure lockouts on old or jerry-rigged equipment.

**Compliance assistance:** “OSHA Lockout/ Tagout Interactive Training Program;” “OSHA Lockout/ Tagout Fact Sheet;” “OSHA Electrical Incidents” – [www.osha.gov/SLTC/controlhazardousenergy/index.html](http://www.osha.gov/SLTC/controlhazardousenergy/index.html)

1. [**Ladders**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10839) **- 1926.1053 (construction standard)**

Total citations: 2,844. Total penalties: $4,213,609. Top three most cited industries: specialty trade contractors; construction buildings; heavy and civil engineering construction.

**Compliance issues:** Ladders are another common workplace tool too often taken for granted. Everyone knows how to climb a ladder, right? But violations occur when ladder set-up is unsafe. The ladder length may be insufficient for a job. The ladder should clear the upper work surface landing point by three feet. Employers might not realize stepladders are covered by the standard as well. There can be no missing rungs on ladders or step ladders, and ladders cannot be used if bent. All ladders must be secured for support at their base, and must be based on a level surface. It’s also important to follow the ladder manufacturer’s duty rating to be sure the ladder can support the weight of the climber and any tools or equipment being carried. OSHA compliance officers will also be on the lookout to ensure metal ladders are never used around electricity.

**Compliance assistance:** “Falling Off Ladders Can Kill: Use Them Safely” – OSHA A-Z Index: Fall Protection; [www.osha.gov](http://www.osha.gov)

1. [**Electrical, Wiring Methods**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9882) **- 1910.305**

Total citations: 2,584. Total penalties: $2,868,876. Top three most cited industries: fabricated metal product manufacturing; food manufacturing; wood product manufacturing.

**Compliance issues:** Wiring is so ubiquitous on worksites it, too, is often taken for granted, resulting in OSHA violations. Employers need to regularly inspect wiring to make sure it is insulated, grounded, and not fraying. Sometimes the ground plug is removed at the end of a cord, and removing the ground risks employee safety. It’s important to educate employees on how a small amount of electricity can kill a person; less than one amp of electricity can cause an electrocution, depending on a person’s body mass and water retention. Use of ground fault circuit interrupters (GFCI) is required where circuit breakers and fuses can blow, especially if water is nearby. Violations occur with CFCIs are improperly wired, failed to work, or are not used.

**Compliance assistance:** “Subpart S – Electrical Standard OSHA eTool”; “OSHA Hazard Alert: Incorrectly Refurbished Circuit Breaker; “Electrical Standards Final Rule” – [www.osha.gov/SLTC/electrical/index.html](http://www.osha.gov/SLTC/electrical/index.html)

1. [**Machine Guarding**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9836) **- 1910.212**

Total citations: 2,255. Total penalties: $6,316,193. Top three most cited industries: fabricated metal product manufacturing; machinery manufacturing; plastics and rubber products manufacturing.

**Compliance issues:** Machine guards are yet another common piece of industrial equipment in use for so many years, employers and employees can take them for granted. Old machine guards may no longer work; and new machinery sometimes can arrive without guarding in place. Employers should ask machine operators about the hazards of doing their work, and have the maintenance department design customized guards if equipment does not have guarding designed in. In the eyes of some employees, machine guards represent the same time of cumbersome inconvenience that can come with wearing certain PPE, and workers might choose to remove the guards or work around them. It’s important that safety audits look for missing or broken machine guards, or guards that are not appropriate for the machinery being used. OSHA compliance officers have been known to break out their smartphones and take videos of suspect machine guards or machinery without guards, send the video instantly to the nearest OSHA area office, and ask a supervisor to verify a violation.

**Compliance assistance:** “Safeguarding Equipment and Protecting Workers from Amputations;’ “Hazards of Operating Unguarded Stone Cutters and Splitters in Landscaping and Other Worksites” – [www.osha.gov/SLTC/machineguarding/index.html](http://www.osha.gov/SLTC/machineguarding/index.html)

1. [**Electrical, General Requirements**](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9880) **- 1910.303**

Total citations: 2,192. Total penalties: $2,817,960. Top three most cited industries: fabricated metal product manufacturing; machinery manufacturing; merchant wholesalers, durable goods.

**Compliance issues:** Basic electrical safety is too easy to overlook, ignore, or take for granted, similar to basic fire safety precautions, because just about every employee has been schooled in both since their youth. Many OSHA general electrical safety requirements can be covered by good housekeeping practices. Temporary wiring and extension cords should be properly stored when not in use to avoid trips and falls, among other hazards. As with other OSHA standards, compliance is aided simply by following manufacturers’ recommendations for electrical equipment. Instructions for designing, installing and operating electrical equipment too often is simply ignored. Employee training in electrical safety requirements cannot be ignored, either. OSHA compliance officers won’t ignore non-existent training.

**Compliance assistance:** “Subpart S – Electrical Standard OSHA eTool”; “OSHA Hazard Alert: Incorrectly Refurbished Circuit Breaker; “Electrical Standards Final Rule” – [www.osha.gov/SLTC/electrical/index.html](http://www.osha.gov/SLTC/electrical/index.html)