



OSHA SAFETY

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Confined space rule applies to construction activities

You might not have paid too much attention to the new OSHA standard on confined spaces in construction if you're in manufacturing, warehousing, or other business that typically follows the general industry regulations.

However, if you do any construction activities in your permit spaces, OSHA expects you to follow the new construction rule.

Construction activities

The new standard applies during entry tasks such as:

- Constructing a new structure,
- Altering an existing permit space,
- Repairing a damaged permit space, or
- Painting or coating the inside of a permit space.



These activities aren't limited to new construction. Employers with existing confined spaces — even those who consider themselves general industry employers — must follow the construction standard if they're doing construction activities in the space.

The general industry standard applies when you have workers enter permit spaces for other types of activities such as:

- Inspecting,
- Cleaning, or
- Doing regular, scheduled maintenance.

Similarities

Until now, construction activities involving confined spaces were covered by a very general requirement to provide training and equipment. In developing the new standard at Part 1926 Subpart AA, OSHA took into account that many construction employers used the general industry rule as guidance when they entered confined spaces. The new rule has many similarities to the general industry rule. Both standards have very similar procedures for:

- The entry permit;
- An entry team made up of the entry supervisor, attendant, and authorized entrant;

- Atmospheric testing to be conducted first for oxygen, next for flammability, and then for toxicity;
- The provision of PPE and other entry equipment;
- A communication system for the attendant and entrants; and
- The availability of rescue services.

Differences

However, there are some key differences between the two standards. The construction standard:

- Has more detailed provisions requiring coordinated activities when there are multiple employers at the worksite (note that the construction standard applies when both construction activities

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- and general industry tasks are done in the permit space at the same time);
- Requires a competent person to evaluate the worksite and identify confined spaces, including permit spaces;
- Requires continuous atmospheric monitoring whenever possible;
- Requires continuous monitoring of engulfment hazards;
- Allows for the suspension of a permit, instead of cancellation, if entry conditions change or an unexpected event triggers an evacuation — the entry can continue when the permit's acceptable entry conditions have been recovered; and

- Requires the employer to work with the rescue agency so that they'll provide advance notice if they'll be unavailable for a rescue operation.

Training

The construction standard's training requirements at 1926.1207 are essentially the same as those for the general industry rule at 1910.146(g), but there are some subtle differences.

The construction standard specifically requires you to provide training in a language and vocabulary that the employee understands. This is not a requirement in the general industry rule, but OSHA has a long and consistent history of interpreting its requirements to generally require employers to

present information in a manner that employees can understand, as clarified in an April 28, 2010, policy statement for OSHA regional administrators.

The construction standard requires a training record containing the name of the employee, the name of the trainer, and the date of training. The general industry requires the employer to certify that training has been completed through a certification containing the name of the employee, the signature or initials of the trainer and the date of training.

More information

The final rule was published in the May 4, 2015, *Federal Register*. It becomes effective on August 3, 2015.

It's time to change the OSHA poster

As a safety trainer, you want to ensure your workers are getting the latest safety information — this includes having the latest OSHA poster on the wall.

OSHA recently unveiled a new version of its "Job Safety and Health — It's The Law!" poster. The poster informs workers of their rights, and employers of their responsibilities. The relevant regulatory requirement is at 1903.2.

The newly designed poster informs workers of their right to:

- Request an OSHA inspection of their workplaces,
- Receive information and training on job hazards,
- Report a work-related injury or illness, and
- Raise safety and health concerns with their employer or OSHA without being retaliated against.

The poster informs employers of their legal obligation to provide a safe workplace. In addition, it has been updated to include the new reporting obligations for employers, who must now report every

fatality and every hospitalization, amputation, and loss of an eye. It also informs employers of their responsibilities to train all workers in a language and vocabulary they can understand, comply with OSHA standards, and post citations at or near the place of an alleged violation.

Employers must display the poster in a conspicuous place where workers can see it. Previous versions of the poster don't need to be replaced (the last update was published in 2007).

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Quick Tips

Help workers do ergo check-ups of their workstations

It's easy to remember to address ergonomic hazards when setting up a computer workstation, but all your good work can fade away over time as people rearrange their desktops.

Since ergonomics-related health problems can develop gradually,



it's a good idea to remind your employees to take a fresh look at their work stations from time to time.

Your employees should be able to say "yes" to the following questions:

- Can you sit with your feet flat on the floor or a footrest?
- Does your chair support your lower back?
- Is the keyboard and monitor directly in front of you?
- Is the screen about 18 to 30 inches away from you?
- Is the top of the screen slightly below your eye level?

- Can you view the entire screen without moving your head?
- Are your keyboard and mouse both at the same level, and are they within close reach?
- Are your shoulders relaxed with your arms and elbows close by your side when you key or click?
- Can you keep your hands and wrists in a neutral or straight position as you key or click?

Your employees don't need to become ergonomics experts, but they should be alert for, and report, conditions that could lead to ergonomics-related problems.

Q&A: How can I better communicate during training sessions?

Have you ever shouted into a cavern to hear your echo? Do your training lectures give you the same feeling? This type of one-way communication doesn't make a successful training program, but some simple steps can improve the communication loop in your classes.

Adults need to be involved in the learning process. One way to keep trainees interested is to use all available communication channels. Trainees need to work with:

- The trainer,
- Other trainees, and
- Training materials.

Good trainers listen as much, or more, than they talk. This means going beyond just asking if anyone has any questions. After you present new material, ask the trainees for their input. For example, have the trainees suggest ways to use the training content in their jobs. Find

out if they need supplies or equipment to apply the new information or techniques. Ask if they can identify any other problems or hazards that your presentation missed.

Adults learn from each other. Devote part of your class time to exercises or discussions. A good approach is to break the class up into small groups and assign case studies or table-top exercises.



Another idea is to share trainee comments from one class with the trainees in other classes.

Some people talk to plants, cars, etc., so why not let your trainees "communicate" with training materials? Hands-on learning through demonstrations and supervised practice sessions helps trainees get a real feel for working safely. Using interactive computer-based training modules is another way to get trainees involved with training materials.

There is one more group to include in your communication loop if you want your training program to make a difference outside the classroom. Make sure that both you and the trainees discuss the training content with the trainees' immediate supervisors. Supervisors armed with information on training objectives make excellent on-the-job coaches.

Cal/OSHA amends heat safety regulations

Cal/OSHA amended the state's heat illness prevention regulation (California Code of Regulations, Title 8 §3395).

Even if you aren't in California, federal OSHA does expect employers to take precautions to prevent heat-related illness. Consider implementing some or all of the protective measures effective in California when you handle heat stress in your work environment.

The revisions in the Cal/OSHA heat illness prevention regulation include the following:

- Water must be pure, suitably cool, and provided free to workers. It must be located as close as practicable to where employees are working so they can hydrate frequently.
- When temperatures exceed 80 degrees Fahrenheit, shade is required for all workers on break, and for all those who take their meal periods onsite. For climates cooler than 80 degrees, shade must still be made available upon request.
- Workers who take cool-down rest breaks must be monitored

and asked if they are experiencing heat illness symptoms.

- High-heat procedures have been modified for the agriculture industry to mandate one 10-minute preventative cool-down rest break every two hours when temperatures equal or exceed 95 degrees Fahrenheit.
- Employers must ensure that supervisors and workers are adequately trained to recognize and react to heat illness signs or symptoms and how to contact emergency medical services (EMS).
- Any workers who display or report any signs or symptoms of heat illness, must not be left alone or sent home without being offered on-site first aid or emergency medical services.
- All workers must be closely observed during a heat wave.
- Any worker newly assigned to a high-heat area must be observed by a supervisor or designee



during the first 14 days of employment.

- Training must be provided for all outdoor workers before starting any work involving heat illness risk. The training must be presented in a language that employees understand, and must be documented.

Preparation is essential to prevent heat illness which can include headaches, fatigue, excessive sweating, and muscle cramps in the early stages, and can rapidly progress to mental confusion, vomiting, fainting, seizures, and death.

More information

The Cal/OSHA amendments took effect on May 1, 2015. A guidance document, as well as an updated Heat Illness Prevention Enforcement Q&A section are now available on Cal/OSHA's website at: www.dir.ca.gov/dosh/HeatIllnessInfo.html.

Federal OSHA has heat stress information available at: www.osha.gov/SLTC/heatstress/index.html.

BLS finalizes report on 2013 fatalities

The final count of fatal U.S. work injuries in 2013 was 4,585, up from the preliminary count of 4,405 reported in September 2014. The final 2013 total was the second-lowest annual total recorded since the fatal injury census was first conducted in 1992. The overall fatal work injury rate in 2013 was 3.3 fatal injuries per 100,000 full-time equivalent (FTE) workers, down slightly from the final rate of 3.4 reported for 2012. The final fatal work injury rate for 2013 is the lowest rate published by the

program since the conversion to hours-based rates in 2006.

Revisions and additions to the 2013 Census of Fatal Occupational Injuries (CFOI) counts result from the identification of new cases and the revision of existing cases based on source documents received after the release of preliminary results.

Among the changes resulting from the updates:

- The private construction sector saw a net increase of 32 fatal work injuries, resulting in a

revised count of 828 for that sector. The 2013 total was 3 percent higher than the 2012 total and represented the largest number of fatal work injuries in private construction since 2009.

- The number of fatal work injuries involving Hispanic or Latino workers rose to 817 after updates, a 9 percent increase compared to the 2012 total (748). The fatal injury rate for Hispanic or Latino workers also increased to 3.9 per 100,000

FTE workers in 2013 from 3.7 in 2012. The number of non-Hispanic Black or African-American workers who were fatally injured on the job in 2013 increased 6 percent from the preliminary (414) to revised (439) counts. The total for non-Hispanic white workers rose by 4 percent after the updates.

- Roadway incidents were higher by 108 cases (11 percent) from the preliminary count, increasing

the total number of fatal work-related roadway incidents in 2013 to 1,099 cases. The final 2013 total represented a 5 percent decrease from the final 2012 count.

- Fatal work injuries resulting from falls, slips, and trips rose by 25 cases after updates, increasing the falls, slips, and trips total to 724 cases.
- In the private transportation and warehousing sector, fatal injuries

increased by 7 percent from the preliminary count, led by a net increase of 32 cases in the truck transportation industry.

- The total number of contractors fatally injured on the job in 2013 rose from 734 to 749 after updates were included. Contract workers accounted for 16 percent of all fatal work injuries in 2013.

NIOSH trains nurses on shift work

The healthcare sector in the U.S. currently employs over 18 million workers with services that take place at all hours.

The National Institute for Occupational Safety and Health (NIOSH) released a free online course that aims to train nurses and their managers on the risks of shift work and long work hours. It includes strategies to reduce these risks. The training course was developed in collaboration with healthcare stakeholders, including nursing organizations and academic groups, and will provide continuing education for registered nurses who complete the course. A certificate of completion is available for persons who are not registered nurses.

The NIOSH *Training for Nurses on Shift Work and Long Work Hours* is designed to increase knowledge and promote better personal behaviors and workplace systems to reduce the risks linked to working shift work, long work hours, and exposure to related issues from insufficient sleep. Content is derived from scientific literature on shift work, long work hours, sleep, and circadian rhythms.



“Healthcare is the fastest growing sector in the U.S. economy with nurses working shift-work schedules to provide services around the clock,” said NIOSH Director John Howard, M.D. “This course provides strategies for reducing risks on the job for both employers and their workers, and shows how innovative training can fill a need in ensuring workplace safety and health.”

The NIOSH training takes into account sleep patterns and processes involved with sleep and fatigue, and provides solutions for both staff nurses and nurse managers to reduce these risks. Particularly, the training will inform nurses and their managers about the following:

- How shift work and long hours are linked to a wide range of health and safety risks by reducing time for sleep, disturbing circadian rhythms, and disrupting family and non-work responsibilities;
- What vital functions occur during sleep and the relevant physiologic processes that determine the timing of sleep and the development of fatigue;

- Good sleep practices and other coping strategies nurses working shift work and long work hours can adopt in their personal lives to reduce risks; and
- Work organization strategies for employers to reduce risks associated with shift work and long work hours.

The NIOSH training program is a multi-media course that incorporates lesson text, lesson quizzes, and video testimonials from several nurses. It can be taken at any time that is convenient and over a series of 15 or 20 minute time periods if desired. The course is divided into two parts to make it easier for nurses to schedule time and receive contact hours for at least part of the training:

- Part 1) Health and safety risks to shift work and long work hours and why these occur. Part 1 takes about 1.5 hours to complete.
- Part 2) Strategies to reduce risks from shift work and long work hours. Part 2 takes about 1.7 hours.

The NIOSH *Training for Nurses on Shift Work and Long Work Hours* is available on the NIOSH website: www.cdc.gov/niosh/docs/2015-115/.

Training Blueprint

Have a tip-top ladder safety program

Some of your workers may see no need for ladder safety training. After all, they've been using ladders their whole lives. That's the attitude you have to overcome when you train employees on ladder safety.

Using a ladder at work may look the same as using one at home, but there are differences that can lead to serious injuries. Workers can be more focused on the job than they are on setting up and climbing a ladder. They may spend more time on the ladder at work than they would for a household chore. Many employees share the equipment so you don't always know it's in good condition.

Falls from ladders can be lethal. The Bureau of Labor Statistics reported that there were more than 100 ladder-related fatalities in private industry during 2013. Workers who know how to use a ladder safely are less likely to get hurt.

Overview

An OSHA proposed rule, published on May 24, 2010, would add general requirements to train employees in the proper care, use, and inspection of ladders. Until the rule is finalized, it's still a good practice to make sure employees know how to use ladders safely.

Specific training elements

1. Introduce the OSHA standards for ladders.

OSHA has rules covering how ladders are constructed and used. The regulations are found at 29 CFR part 1910 subpart D, walking and working surfaces:

- 1910.25 Portable wood ladders,

- 1910.26 Portable metal ladders, and
- 1910.27 Fixed ladders.

OSHA has proposed revisions to these rules. Under the proposal, there would be only one standard on ladders (1910.23), and that standard would apply to all ladders except those used only for firefighting or rescue operations and ladders that are designed into a machine or piece of equipment. The proposed rule has general requirements for all ladders and sections on:

- Portable ladders,
- Fixed ladders, and
- Mobile ladder stands and platforms.

Both the existing regulations and the proposed rule include similar requirements for how ladders are built, used, and maintained.

2. Highlight the importance of safe ladder design and construction.

When you climb a ladder, you expect the steps or rungs to be evenly spaced, level, and parallel. You expect to have enough clearance for your feet and hands as you climb. You expect the ladder to support your weight.

All of these expectations depend on the ladder being designed and built using recognized design standards and proper materials.

OSHA includes some design requirements in the regulations. Ladder manufacturers typically want more detailed instruction, so they turn to guidance in the American National Standards Institute (ANSI) standards that apply to ladders. In fact, OSHA's rules for the

construction industry (29 CFR part 26 subpart X) reference some of these standards as non-mandatory guidance:

- ANSI A14.1, portable wooden ladders;
- ANSI A14.2, portable metal ladders;
- ANSI A14.3, fixed ladders;
- ANSI A14.4, job-made wooden ladders;
- ANSI A14.5, portable reinforced plastic ladders; and
- ANSI A14.7, mobile ladder stands and platforms.

Following ANSI standards is recognized as good industrial practice, and you might see markings on ladders to indicate they were built to an ANSI standard.

3. Demonstrate ladder inspection procedures.

Find defects before they cause injuries. Follow the manufacturer's inspection guidelines. In general, inspect ladders for:

- Broken or missing rungs or steps,
- Broken or split side rails,
- Corrosion,
- A tight fit between steps and side rails,
- Rungs that are free of grease or oil,
- No splinters or sharp points,
- Secure hardware and fittings,
- Moveable parts that operate freely without binding or excessive play,





- Proper lubrication on wheels or pulleys, and
- No frayed or badly worn rope on extension ladders.

The OSHA rules include ladder inspection requirements that you should follow. Ladders should be inspected before each use and after an incident, such as a fall, that could have caused damage.

Trainer's note: *Demonstrate the proper way to inspect a ladder, then have some volunteers conduct some inspections. If possible, set up a few defects that the trainees should find during the inspections. It's a good practice to include regularly scheduled ladder inspections in your facility's preventive maintenance schedule.*

4. Describe what employees are to do for ladder maintenance and repair.

If you find structural defects, corrosion, or other defective parts during an inspection, the ladder must be immediately removed from service and tagged with a statement such as "Do Not Use." A fixed ladder can also be blocked with material that spans several rungs in order to remove it from use.

A repaired ladder must be safe to use. Repairs must not be improvised — it's a good practice for

repairs to be done by qualified maintenance personnel or the ladder's manufacturer.

5. Emphasize your procedures for safe ladder use.

Follow these procedures to use ladders safely:

- Select a ladder with adequate length and load limits.
- Don't use metal ladders near electrical lines.
- Use the ladder for its intended purpose. Don't use a stepladder as a straight ladder.
- Set up the ladder on a firm, solid surface. Don't set up a ladder on a scaffold to gain extra height. Don't set up a ladder on a slippery or icy surface.
- Keep the areas around the top and bottom of the ladder clear.
- Open stepladders fully and lock the spreaders to keep the ladder stable.
- Set up straight ladders using the 4 to 1 rule. The distance from the wall to the base of the ladder should be one-fourth the distance from the base of the ladder to where it touches the wall. The rails must be supported equally at the top. The top of the ladder should extend at least three feet above the support point. Set up extension ladders so the upper section overlaps and rests on

the bottom section — always overlap the upper section on the climbing side and lock the rungs in place.

- Face the ladder when ascending or descending.
- Use both hands to grip the side rails whenever possible. Always use at least one hand to grasp the ladder when climbing, and don't carry anything that could cause you to lose balance.
- Use a ladder safety device, cage, or well on fixed ladders over 20 feet.
- Only one person is allowed on a ladder at a time.
- Don't stand on the top two steps of a stepladder. Don't climb the back sections of stepladders.
- Don't stand on the top four rungs of a straight ladder.
- Hoist tools or other materials up to you after you've reached the top of the ladder. Wear a tool belt to help you manage tools while you're working from a ladder.
- Work within the side rails. Descend and move the ladder as needed to stay close to your work. Never move a ladder while someone is on it.
- Store ladders securely in designated areas on racks or hooks.

Trainer's note: *Conduct an exercise to evaluate how the trainees select ladders and set them up in the work area. Are they using the right ladder for the assigned task? Do they inspect the ladder before use? Do they use it properly? During the demonstration, point out the safe practices that the volunteers are following.*

Answers to Safety Selections quiz

1. False; 2. True; 3. True; 4. False; 5. True.

Safety Selections

The Safety Selections series can be used to conduct periodic safety meetings. The materials may be used by the safety director or other instructor as the basis for the safety discussion. J. J. Keller & Associates, Inc. grants permission to subscribers to reproduce the text of Safety Selections for internal use at one business location only provided that J. J. Keller's copyright notice remains visible on all copies. It can be reproduced and distributed to workers as a handy reminder.

Keep safety in mind as you climb

Just because you're using a ladder instead of climbing on furniture, racks, or materials doesn't mean you're safe. The ladder itself must be in good condition, it must be the right ladder for the job, and you have to use it properly. Using a ladder is serious business; falls from ladders kill more than 100 workers each year.

Inspect the ladder

Inspect ladders before each use to make sure they're in good condition. Also inspect a ladder if it falls or could have been damaged.

- Do the rungs, cleats, or steps fit tightly, and are they in good condition?
- Are the side rails intact without any cracks, bends, or breaks?
- Are the side rails and steps free of oil, grease, or ice?
- Is the ladder free of rust?
- Are the ladder's hardware and fittings intact and undamaged?
- Are the ropes on extension ladders intact without fraying or excessive wear?

Do not use a defective ladder — apply a "Do Not Use" tag to warn others.

Use the right tool for the job

When you select a ladder, make sure it's:

- Long enough;
- Rated to support your weight and anything you'll carry; and
- The right type of ladder to use in the situation.

Always use a ladder for its intended purpose (don't use a stepladder as a straight ladder).

Use it safely

To use a ladder safely:

- Never use a metal ladder near electrical lines;
- Set up the ladder on a firm, solid surface;
- Keep the areas around the top and bottom of the ladder clear;
- Fully open a stepladder and lock the spreaders;
- Set up a straight ladder so the base is one foot from the wall for each four feet of ladder length to the support point;
- Make sure the top of a straight ladder extends at least three feet above the support point;
- Make sure the upper section of an extension ladder overlaps the lower section — the overlap is on the climbing side with the rungs locked in place;
- Face the ladder when climbing and descending;
- Use both hands to grip the side rails whenever possible;
- Allow only one person on the ladder at a time;
- Stay off the top two steps of a stepladder;
- Stay off the back section of a stepladder;
- Stay off the top four rungs of a straight ladder; and
- If a fixed ladder is equipped with a safety device, use it.



Quiz — Keep safety in mind as you climb

For each question, show if the statement is True or False.

- | | | |
|---|------|-------|
| 1. If the bottom rung is loose or cracked, the ladder is still safe to use. | True | False |
| 2. If you need a longer ladder to reach the job, get a longer ladder. | True | False |
| 3. Never use a metal ladder if you're painting near electrical lines. | True | False |
| 4. Always face away from a stepladder when you climb down it. | True | False |
| 5. Be sure a straight ladder extends at least three feet above the top support. | True | False |

Name: _____ Date: _____