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OSHA Standard 29 CFR 1926.501: Duty to Have Fall Protection

Ranking: #1

The Risk

Falls are among the most common causes of serious work-related injuries and deaths. There is a myriad of ways in which falls can occur in an occupational setting and falls from even relatively low heights can result in injury, permanent disability and fatalities. Those working in construction and extraction, healthcare support: building cleaning and maintenance; transportation and material moving are at highest risk for on-thejob falls, with the construction industry experiencing the highest frequency of fall-related deaths. Fall injuries create an enormous financial burden for both injured workers and their employers in terms of work missed and workers compensation and medical costs.

Major Provisions of the Standard

- The employer shall determine if the walking/working surfaces on which its employees are to work have the strength and structural integrity to support employees safely. Employees shall be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.
- "Unprotected sides and edges." Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems.

a leading edge 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems or personal fall arrest systems. Exception: When the employer can demonstrate that it is infeasible or creates a greater hazard

to use these systems, the employer

shall develop and implement a

fall protection plan which meets

the requirements of paragraph (k)

of 1926.502.

• Each employee who is constructing

- Each employee on a walking/working surface 6 feet (1.8 m) or more above a lower level where leading edges are under construction, but who is not engaged in the leading-edge work, shall be protected from falling by a guardrail system, safety net system or personal fall arrest system. If a guardrail system is chosen to provide the fall protection, and a controlled access zone has already been established for leading edge work, the control line may be used in lieu of a guardrail along the edge that parallels the leading edge.
- Each employee in a hoist area shall be protected from falling 6 feet (1.8 m) or more to lower levels by guardrail systems or personal fall arrest systems. If guardrail systems, [or chain, gate, or guardrail] or portions thereof, are removed to facilitate the hoisting operation (e.g., during landing of materials), and an employee must

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The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
5,605	5,463	\$29,359,415	Total for All Industries
5,475	5,336	\$28,653,928	23 / Construction
33	33	\$148,071	33 / Manufacturing (part 3 of 3)
31	31	\$232,755	42 / Wholesale Trade
22	20	\$105,975	56 / Administrative and Support and Waste Management and Remediation Services
10	10	\$47,899	22 / Utilities
7	7	\$21,860	54 / Professional, Scientific and Technical Services
5	5	\$51,333	44 / Retail Trade (part 1 of 2)
3	3	\$17,923	51 / Information
3	3	\$12,971	53 / Real Estate and Rental and Leasing





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- lean through the access opening or out over the edge of the access opening (to receive or guide equipment and materials, for example), that employee shall be protected from fall hazards by a personal fall arrest system.
- Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above lower levels, by personal fall arrest systems, covers or guardrail systems erected around such holes.
- Each employee on a walking/working surface shall be protected from tripping in or stepping into or through holes (including skylights) by covers.
- Each employee on the face of formwork or reinforcing steel shall be protected from falling 6 feet (1.8 m) or more to lower levels by personal fall arrest systems, safety net systems or positioning device systems.
- Each employee on ramps, runways and other walkways shall be protected from falling 6 feet (1.8 m) or more to lower levels by guardrail systems.
- Each employee at the edge of a well, pit, shaft and similar excavation 6 feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, barricades or covers.
- Each employee less than 6 feet (1.8 m) above dangerous equipment shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards.
- Each employee 6 feet (1.8 m) or more above dangerous equipment shall be protected from fall hazards by guardrail systems, personal fall arrest systems or safety net systems.

• Each employee engaged in roofing activities on lowslope roofs, with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. Or, on roofs 50 feet (15.25 m) or less in width, the use of a safety monitoring system alone [i.e. without the warning line system] is permitted.

Compliance Resources

OSHA's National Safety Stand-Down to Prevent Falls in Construction resources include training guides, videos and other materials in both English and Spanish. Click here: www.osha.gov/stop-falls-stand-down/resources

- OSHA's Falls Prevention Campaign Page
 - o Campaign Fact Sheet: English (PDF) Spanish (PDF), Polish (PDF) and Russian (PDF)
 - o Campaign Poster: English (PDF). Spanish (PDF)
 - o Fall Prevention Wallet Card English (PDF). Spanish (PDF). Portuguese (PDF)
- Fall Prevention Training Guide
 - A Lesson Plan for Employers (PDF) (EPUB | MOBI). Spanish (PDF) (EPUB | MOBI).
- Fall Prevention Publications: Webpage contains fall prevention materials in English and Spanish.
 - o Fall Protection in Construction (PDF).
 - o Protecting Roofing Workers (PDF). WMHS



OSHA Standard 29 CFR 1910.134: Respiratory Protection

Ranking: #2

The Risks

Respirators protect workers against insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors and sprays. These hazards may cause cancer, lung impairment, diseases or death. Compliance with the OSHA Respiratory Protection Standard could avert hundreds of deaths and thousands of illnesses annually.

Respirators protect the user in two basic ways. The first is by the removal of contaminants from the air. Respirators of this type include particulate respirators,

which filter out airborne particles, and air-purifying respirators with cartridges/ canisters which filter out chemicals and gases. Other respirators protect by supplying clean respirable air from another source. Respirators that fall into this category include airline respirators, which use compressed air from a remote source, and self-contained breathing apparatus (SCBA), which include their own air supply.

Major Provisions of the Standard

• In the control of those occupational diseases caused by breathing air

contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.

- A respirator shall be provided to each employee when such equipment is necessary to protect the health of such employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protection program.
- In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The employer shall include in the program

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the following provisions of this section, as applicable:

- o Procedures for selecting respirators for use in the workplace;
- o Medical evaluations of employees required to use respirators;
- Fit testing procedures for tight-fitting respirators;
- o Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations:
- o Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding and otherwise maintaining respirators;
- o Procedures to ensure adequate air quality, quantity and flow of breathing air for atmosphere-supplying respirators;
- o Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
- o Training of employees in the proper use of respirators, including putting

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
2,193	924	\$4,460,370	Total for All Industries
708	303	\$2,192,877	62 / Health Care and Social Assistance
450	174	\$785,411	33 / Manufacturing (part 3 of 3)
253	104	\$401,705	32 / Manufacturing (part 2 of 3)
236	104	\$259,531	23 / Construction
122	49	\$135,500	81 / Other Services (except Public Administration)
84	34	\$81,301	42 / Wholesale Trade
59	34	\$123,362	56 / Administrative and Support and Waste Management and Remediation Services
49	25	\$110,212	31 / Manufacturing (part 1 of 3)
45	14	\$38,408	71 / Arts, Entertainment and Recreation
43	16	\$86,186	48 / Transportation and Warehousing (1 of 2)

on and removing them, any limitations on their use, and their maintenance; and

- Procedures for regularly evaluating the effectiveness of the program.
- An employer may provide respirators at the request of employees or permit employees to use their own respirators if the employer determines that such respirator use will not in itself create a hazard.
- In addition, the employer must establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored and maintained so that its use does not present a health hazard to the user. Exception: Employers are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks).
- The employer shall designate a program administrator
 who is qualified by appropriate training or experience
 that is commensurate with the complexity of the
 program to administer or oversee the respiratory protection program and conduct the required evaluations
 of program effectiveness.
- The employer shall provide respirators, training and medical evaluations at no cost to the employee.
- The employer is required to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base respirator selection on the respiratory hazard(s) to which the worker is exposed.
- The employer shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.
- The employer shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the

contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be IDLH (immediately dangerous to life and health).

- The employer shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
- The employer shall provide the following respirators for employee use in IDLH atmospheres:
- A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
- A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.
- All oxygen-deficient atmospheres shall be considered IDLH. Exception: If the employer demonstrates that, under all foreseeable conditions, the oxygen concentration can be maintained within the ranges specified in Table II of this section (i.e., for the altitudes set out in the table), then any atmosphere-supplying respirator may be used.



• For atmospheres that are not IDLH, the employer shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

Compliance Resources

OSHA's website provides a variety of respiratory information, including general guidance, training videos and resources in Spanish. Go to: www.osha.gov/respiratory-protection **WMHS**





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OSHA Standard 29 CFR 1926.1053: Ladders

Ranking: #3

The Risks

Falls from ladders can result in serious injuries, permanent disability and death. Injuries related to ladders can be traced to a variety of causes. Overreaching instead of descending and moving the ladder to a different location is a common cause. Using a ladder when some other piece of equipment is called for – like a scissor

lift, mobile elevated platform or scaffolding – can also result in injuries. A ladder that is in poor condition or is not designed to handle the weight of the user is a hazard. So is placing the base of the ladder on unlevel or soft ground, as well as failing to maintain a 3-point contact with it.

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
2,162	1,838	\$5,835,589	Total for All Industries
2,103	1,787	\$5,646,880	23 / Construction
14	10	\$49,097	33 / Manufacturing (part 3 of 3)
12	12	\$35,594	42 / Wholesale Trade
12	10	\$27,431	56 / Administrative and Support and Waste Management and Remediation Services
5	5	\$19,482	22 / Utilities
4	2	\$21,446	44 / Retail Trade (part 1 of 2)
3	3	\$13,049	54 / Professional, Scientific and Technical Services
2	2	\$6,827	53 / Real Estate and Rental and Leasing
2	2	\$4,553	32 / Manufacturing (part 2 of 3)
1	1	\$4,500	49 / Transportation and Warehousing (2 of 2)
1	1	\$3,000	51 / Information
1	1	\$2,731	62 / Health Care and Social Assistance
1	1	\$1,000	81 / Other Services (except Public Administration)
1	1	\$0	11 / Agriculture, Forestry, Fishing and Hunting

Major Provisions of the Standard

- Ladders shall be capable of supporting the following loads without failure:
- Each self-supporting portable ladder: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated in this paragraph shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction. Ladders built and tested in conformance with the applicable provisions of appendix A of this subpart will be deemed to meet this requirement.
- Each portable ladder that is not self-supporting: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladders shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated in this paragraph shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction when the ladder is

- placed at an angle of 75 1/2 degrees from the horizontal. Ladders built and tested in conformance with the applicable provisions of appendix A will be deemed to meet this requirement.
- Each fixed ladder: At least two loads of 250 pounds (114 kg) each, concentrated between any two consecutive attachments (the number and position of additional concentrated loads of 250 pounds (114 kg) each, determined from anticipated usage of the ladder, shall also be included), plus anticipated loads caused by ice buildup, winds, rigging and impact loads resulting from the use of ladder safety devices. Each step or rung shall be capable of supporting a single concentrated load of at least 250 pounds (114 kg) applied in the middle of the step or rung. Ladders built in conformance with the applicable provisions of appendix A will be deemed to meet this requirement.
- Ladder rungs, cleats and steps shall be parallel, level and uniformly spaced when the ladder is in position for use.
- The rungs of individual-rung/ step ladders shall be shaped such



that employees' feet cannot slide off the end of the rungs.

- The rungs and steps of fixed metal ladders manufactured after March 15, 1991, shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.
- The rungs and steps of portable metal ladders shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.
- Ladders shall not be tied or fastened together to provide longer sections unless they are specifically designed for such use.
- A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.
- When splicing is required to obtain a given length of side rail, the resulting side rail must be at least equivalent in strength to a one-piece side rail made of the same material.
- Except when portable ladders are used to gain access to fixed ladders (such as those on utility towers, billboards and other structures where

- the bottom of the fixed ladder is elevated to limit access), when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders.
- Ladder components shall be surfaced so as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- Wood ladders shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail.
- Where the total length of a climb equals or exceeds 24 feet (7.3 m), fixed ladders shall be equipped with one of the following:
- Ladder safety devices; or
- Self-retracting lifelines, and rest platforms at intervals not to exceed 150 feet (45.7 m); or
- A cage or well, and multiple ladder sections, each ladder section not to exceed 50 feet (15.2 m) in length. Ladder sections shall be offset from adjacent sections, and landing platforms shall be provided at maximum intervals of 50 feet (15.2 m).

- Cages for fixed ladders shall conform to the following:
 - Horizontal bands shall be fastened to the side rails of rail ladders, or directly to the structure, building or equipment for individual-rung ladders.
 - Vertical bars shall be on the inside of the horizontal bands and shall be fastened to them.

Compliance Resources

OSHA's has ladder safety publications on agriculture, construction, extension ladders, step ladders and job made ladders. Access them at: www.osha.gov/publications/bytopic/ladder-safety www.osha.gov/publications/bytopic/ladder-safety/ www.osha.gov/publications/bytopic/ladder-safety/ www.osha.gov/publications/ www.osha.gov/publications/ www.osha.gov/publications/ <a href="https://www.osh



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OSHA Standard 29 CFR 1910.1200: Hazard Communication

Ranking: #5

The Risks

Manufacturing, construction, mining, warehousing, welding, transportation, and oil and gas are among the industries in which hazardous chemicals are routinely used. Exposure to toxic substances can cause both short-term health emergencies and long-term illnesses. including severe burns and inflammation, respiratory difficulties and cancer. In order to ensure worker safety, information about the identities and hazards of the chemicals must be available and understandable to workers. OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information.

Major Provisions of the Standard

• Chemical manufacturers and importthis requirement.

- Chemical manufacturers, importers or employers classifying chemicals shall identify and consider the full range of available scientific literature and other evidence concerning the potential hazards. There is no requirement to test the chemical to determine how to classify its hazards.
- Chemical manufacturers, importers, or employers evaluating chemicals shall follow the procedures described in Appendices A and B to Sec. 1910.1200 to classify the hazards of the chemicals, including determinations regarding when mixtures of the classified chemicals are covered by this section.
- When classifying mixtures they produce or import, chemical manufacturers and importers of mixtures may rely on the information provided on the current safety data sheets of the individual ingredients, except where the chemical manufacturer or importer knows, or in the exercise of reasonable diligence should know, that the safety data sheet misstates or omits information required by this section.
- Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the

ers shall evaluate chemicals produced in their workplaces or imported by them to classify the chemicals in accordance with this section. For each chemical, the chemical manufacturer or importer shall determine the hazard classes, and, where appropriate, the category of each class that apply to the chemical being classified. Employers are not required to classify chemicals unless they choose not to rely on the classification performed by the chemical manufacturer or importer for the chemical to satisfy

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
53	27	\$167,115	Total for All Industries
18	7	\$26,840	33 / Manufacturing (part 3 of 3)
16	8	\$88,030	32 / Manufacturing (part 2 of 3)
5	4	\$18,477	31 / Manufacturing (part 1 of 3)
5	1	\$4,000	56 / Administrative and Support and Waste Management and Remediation Services
4	2	\$12,834	48 / Transportation and Warehousing (1 of 2)
3	3	\$8,373	42 / Wholesale Trade
1	1	\$6,690	62 / Health Care and Social Assistance
1	1	\$1,873	23 / Construction

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- criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, safety data sheets, and employee information and training will be met, and which also includes the following:
- A list of the hazardous chemicals known to be present using a product identifier that is referenced on the appropriate safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,
- The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
- Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

- The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;
- The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,
- The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.
- The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this paragraph (e).
- The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.1020 (e).
- Where employees must travel between workplaces during a work shift, i.e.,

- their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.
- The chemical manufacturer, importer or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked. Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information shall be provided:
 - o Signal word
 - Hazard statement(s)
 - o Pictogram(s)
 - Precautionary statement(s)
 - Name, address and telephone number of the chemical manufacturer, importer or other responsible party.
 - Product identifier and words, pictures, symbols or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard

- communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.
- The employer may use signs, placards, process sheets, batch tickets, operating procedures or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(6) of this section to be on a label. The employer shall ensure the written materials are readily accessible to the employees in their work area throughout each work shift.

Compliance Resources

Smaller employers will find OSHA's publication, HAZARD COMMUNICATION: Small Entity Compliance Guide for Employers That Use Hazardous Chemicals useful. You can find it at: www.osha.gov/sites/default/files/publications/OSHA3695.pdf WMHS



OSHA Standard 29 CFR 1926.451: Scaffolds

Ranking: #4

The Risks

The Bureau of Labor Statistics' Census of Fatal Occupational Injuries (CFOI) reported 52 fatal falls to lower levels from scaffolding in 2020. While some of these are attributable to unsafe work practices, scaffolding that is poorly made or lacking in proper guardrails or protection can be treacherous for workers who use it. This standard specifies requirements for safe scaffolding.

Major Provisions of the Standard

- With exceptions, each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.
- Direct connections to roofs and floors, and counterweights used to balance adjustable suspension scaffolds, shall be capable of resisting at least four times the tipping moment imposed by the scaffold operating at the rated load of the hoist, or 1.5 (minimum) times the tipping
- moment imposed by the scaffold operating at the stall load of the hoist, whichever is greater.
- Each suspension rope, including connecting hardware, used on non-adjustable suspension scaffolds shall be capable of supporting, without failure, at least six times the maximum intended load applied or transmitted to that rope.
- Each suspension rope, including connecting hardware, used on adjustable suspension scaffolds shall be capable of supporting, without failure, at least six times the maximum intended load applied or transmitted to that rope with the scaffold operating at either the rated load of the hoist, or two (minimum) times the stall load of the hoist, whichever is greater.
- The stall load of any scaffold hoist shall not exceed three times its rated load.
- Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design. Non-mandatory Appendix A to this subpart contains examples of criteria that will enable an employer to comply with paragraph (a) of this section.

- Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports as follows:
- Each platform unit (e.g., scaffold plank, fabricated plank, fabricated deck or fabricated platform) shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch (2.5 cm) wide, except where the employer can demonstrate that a wider space is necessary (for example, to fit around uprights when side brackets are used to extend the width of the platform).
- Where the employer makes the demonstration provided for in paragraph (b)(1)(i) of this section, the platform shall be planked or decked as fully as possible and the remaining open space between the platform and the uprights shall not exceed 9 1/2 inches (24.1 cm).
- Exception to paragraph (b)(1): The requirement in paragraph (b)(1) to provide full planking or decking does not apply to platforms used solely as walkways or solely by employees performing scaffold erection or dismantling. In these

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
2,163	1,082	\$6,499,476	Total for All Industries
2,079	1,034	\$6,206,366	23 / Construction
23	13	\$63,125	33 / Manufacturing (part 3 of 3)
17	9	\$73,520	42 / Wholesale Trade
13	5	\$27,584	56 / Administrative and Support and Waste Management and Remediation Services
9	4	\$18,029	32 / Manufacturing (part 2 of 3)
6	4	\$36,211	53 / Real Estate and Rental and Leasing
4	3	\$20,199	44 / Retail Trade (part 1 of 2)
3	3	\$11,053	54 / Professional, Scientific and Technical Services
2	2	\$6,144	22 / Utilities
2	1	\$13,653	72 / Accommodation and Food Services

situations, only the planking that the employer establishes is necessary to provide safe working conditions is required.

- With exceptions, each scaffold platform and walkway shall be at least 18 inches (46 cm) wide.
- Each ladder jack scaffold, top plate bracket scaffold, roof bracket scaffold and pump jack scaffold shall be at least 12 inches (30 cm) wide. There is no minimum width requirement for boatswains' chairs.
- Where scaffolds must be used in areas that the employer can demonstrate are so narrow that platforms and walkways cannot be at least 18 inches (46 cm) wide, such platforms and walkways shall be as wide as feasible, and employees on those platforms and walkways shall be protected from fall hazards by the use of guardrails and/or personal fall arrest systems.
- The front edge of all platforms shall not be more than 14 inches (36 cm) from the face of the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are

- used in accordance with paragraph (g) of this section to protect employees from falling.
- The maximum distance from the face for outrigger scaffolds shall be 3 inches (8 cm);
- The maximum distance from the face for plastering and lathing operations shall be 18 inches (46 cm).
- Each end of a platform, unless cleated or otherwise restrained by hooks or equivalent means, shall extend over the centerline of its support at least 6 inches (15 cm).
- Each end of a platform 10 feet or less in length shall not extend over its support more than 12 inches (30 cm) unless the platform is designed and installed so that the cantilevered portion of the platform is able to support employees and/or materials without tipping or has guardrails which block employee access to the cantilevered end.
- Each platform greater than 10 feet in length shall not extend over its support more than 18 inches (46 cm), unless it is designed and installed so that the cantilevered portion of the platform is able to support employees without tipping or has

- guardrails which block employee access to the cantilevered end.
- On scaffolds where scaffold planks are abutted to create a long platform, each abutted end shall rest on a separate support surface. This provision does not preclude the use of common support members, such as "T" sections, to support abutting planks, or hook-on platforms designed to rest on common supports.
- On scaffolds where platforms are overlapped to create a long platform, the overlap shall occur only over supports, and shall not be less than 12 inches (30 cm) unless the platforms are nailed together or otherwise restrained to prevent movement.

Compliance Resources

OSHA's *Scaffolding eTool* identifies common hazards associated with scaffolds and discusses requirements for designing and constructing scaffolds. You can find it here: www.osha.gov/etools/scaffolding *WMHS*





In 2021, Hazard Communication Standard (1910.1200) was ranked 4th on OSHA's Most Frequently Cited Standards.

CHEMTREC's OSHA Hazard Communication Standard course can help employers avoid this statistic.

Who Requires OSHA HAZCOM Training?

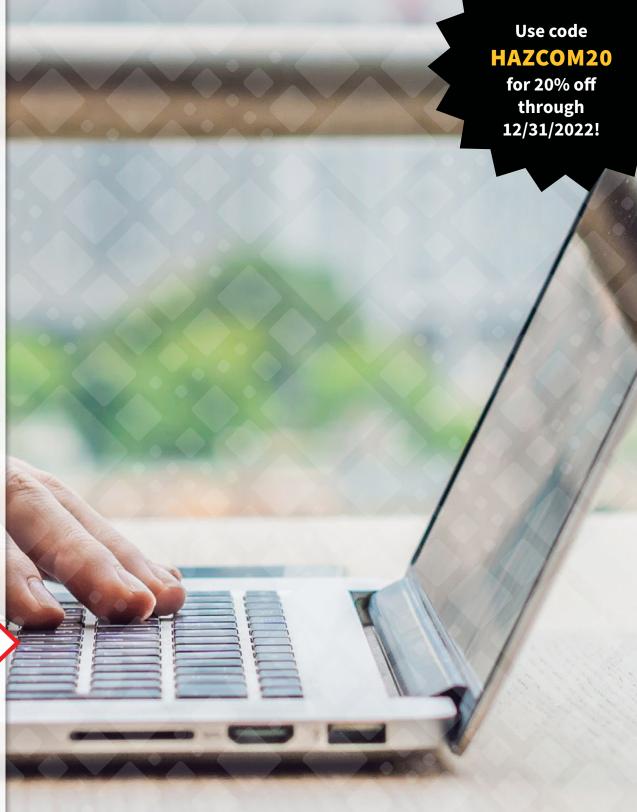
Employees who interact with hazardous chemicals routinely or in the event of emergencies at initial assignment AND upon introduction of a new chemical hazard.

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- Classification of Physical and Health Hazards and Labelling
- HazCom Training and Regulations



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OSHA Standard 29 CFR 1926.503: Fall Protection Training

Ranking: #7

The Risk

Workers performing tasks 6 feet or more above lower levels are at risk of fatal falls or serious injuries. In the construction industry alone, falls generally account for about a third of the deaths that occur on the job each year. Equipping employees with the type of fall protection appropriate to the tasks they perform and the environment in which they work is vital. So is regularly assessing the fall protection devices used, to confirm that it is in good shape. However, safeguarding workers from falls and the serious injuries they can cause requires

a broader approach – one that includes training about hazard recognition and procedures for erecting and maintaining fall protection.

Major Provisions of the Standard

• The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry
1,732	1,667	\$3,024,375	TOTAL
1,688	1,627	\$2,938,407	Construction
11	11	\$25,301	Wholesale Trade
8	8	\$32,280	Admin. Support & Waste Mgmt. & Remediation Svcs.
7	6	\$14,555	Manufacturing (pt. 3 of 3)
6	4	\$3,414	Utilities
2	2	\$329	Retail Trade (pt. 1 of 2)
2	1	\$0	Transportation and Warehousing (1 of 2)
1	1	\$5,668 54	Professional, Scientific & Technical Svcs.
1	1	\$2,458	Manufacturing (pt. 1 of 3)
1	1	\$1,215 92	Public Administration
1	1	\$750	Other Services

- The employer shall assure that each employee has been trained, as necessary, by a competent person qualified in the following areas:
 - The nature of fall hazards in the work area;
 - The correct procedures for erecting, maintaining, disassembling and inspecting the fall protection systems to be used;
 - The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones and other protection to be used;
 - The role of each employee in the safety monitoring system when this system is used;
 - The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
 - The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
 - The role of employees in fall protection plans.
- The employer shall verify compliance with paragraph (a) of this section by preparing a written certification record. The written certification record shall contain the name or other

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identity of the employee trained, the date(s) of the training and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training.

- The latest training certification shall be maintained.
- "Retraining." When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by paragraph (a) of this section, the employer shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:
 - o Changes in the workplace render previous training obsolete; or
 - Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
 - o Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

Compliance Resources

OSHA has a publication entitled, *Fall Prevention Training Guide: A Lesson Plan for Employers*. This training guide will help you plan how to prevent injuries and fatalities from falls among your crew and provide training to your workers. It includes advice for trainers, a series of Toolbox Talks, instructions for how to use the Toolbox Talks to train workers in fall prevention and details about various fall prevention topics. There are also educational materials that include a fall prevention fact sheet and wallet card in both English and Spanish, prevention videos and a fall prevention poster. The training is designed to be short, participatory, and easy to follow. Access it at: https://tinyurl.com/yej7n47t *WMHS*









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OSHA Standard 29 CFR 1910.147: Control of Hazardous Energy (Lockout/Tagout)

Ranking: #6

Energy sources including electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other sources in machines and equipment can be hazardous to workers. During the servicing and maintenance of machines and equipment, the unexpected startup or release of stored energy can result in serious injury or death to workers. Injuries may include electrocution, burns, crushing, cutting, lacerating, amputating or fracturing body parts, and others. Craft workers, electricians, machine operators and laborers are among the millions of workers who service equipment routinely and face the greatest risk of injury.

Proper lockout/tagout (LOTO) practices and procedures safeguard workers from hazardous energy releases.

Major Provisions of the Standard

This standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy, could harm employees. It establishes minimum performance requirements for the control of such hazardous energy.

Minor tool changes and adjustments, and other minor servicing activities,

which take place during normal production operations, are not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

- Employers must establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices, and to otherwise disable machines or equipment to prevent unexpected energization, startup or release of stored energy in order to prevent injury to employees. Employers are also required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures. Workers must be trained in the purpose and function of the energy control program and have the knowledge and skills required for the safe application, usage, and removal of the energy control devices.
- If an energy isolating device is not capable of being locked out, the employer's energy control program shall utilize a tagout system.
- If an energy isolating device is capable of being locked out, the employer's energy control program under paragraph shall utilize lockout, unless the

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
1,880	1,048	\$11,998,443	Total for All Industries
574	324	\$3,499,057	32 / Manufacturing (part 2 of 3)
505	284	\$2,806,116	33 / Manufacturing (part 3 of 3)
308	177	\$3,074,499	31 / Manufacturing (part 1 of 3)
144	64	\$774,919	42 / Wholesale Trade
66	36	\$374,468	56 / Administrative and Support and Waste Management and Remediation Services
54	32	\$446,056	81 / Other Services (except Public Administration)
48	26	\$280,665	23 / Construction
36	24	\$144,153	44 / Retail Trade (part 1 of 2)
21	11	\$77,417	21 / Mining, Quarrying, and Oil and Gas Extraction
21	7	\$17,554	62 / Health Care and Social Assistance



- employer can demonstrate that the utilization of a tagout system will provide full employee protection.
- Whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machine or equipment shall be designed to accept a lockout device.
- When a tagout device is used on an energy isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and the employer shall demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.
- In demonstrating that a level of safety is achieved in the tagout program which is equivalent to the level of safety obtained by using a lockout program, the employer shall demonstrate full compliance with all tagout-related provisions of this standard together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization.

- Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this section.
- The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:
 - o A specific statement of the intended use of the procedure;
 - Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;
- Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them; and
- Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.
- Locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware shall be provided by the employer for isolating, securing or blocking of machines or equipment from energy sources.
- Lockout devices and tagout devices shall be singularly identified; shall be the only devices(s) used for

- controlling energy; shall not be used for other purposes; and shall meet the following requirements:
- Lockout and tagout devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.
- Tagout devices shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.
- Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.

Compliance Resources

OSHA's *Lockout/Tagout Fact Sheet* describes the practices and procedures necessary to disable machinery or equipment to prevent the release of hazardous energy. Access it here: https://tinyurl.com/33mabu9d *WMHS*



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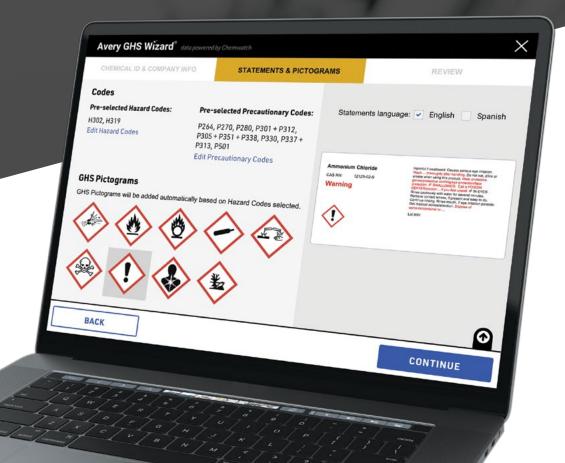
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HERE TO WORK

OSHA Standard 29 CFR 1926.102: Eye and Face Protection

Ranking: #8

The Risk

Thousands of people are blinded each year from work-related eye injuries that could have been prevented with the proper selection and use of eye and face protection. The majority of eye injuries result from small particles or objects – like dust, cement chips, metal slivers and wood chips - striking or scraping the eye. These materials are often ejected by tools or windblown. Some fall from above a worker. Large objects may also strike the eye or face, or a worker may run into an object causing blunt force trauma to the eveball or eve socket. Nails, staples, or slivers of wood or metal can go penetrate the eyeball and result in a permanent loss of vision. There are also chemical and thermal burns to the eyes and surrounding tissue (often among welders) as well as diseases resulting from exposure to blood splashes,

droplets from coughing or sneezing, or from touching the eyes with a contaminated finger or object.

Major Provisions of the Standard

- The employer shall ensure that each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.
- The employer shall ensure that each affected employee uses eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g., clip-on or slide-on side shields) meeting the pertinent requirements of this section are acceptable.
- The employer shall ensure that each affected

employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, or wears eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
1,513	1,507	\$4,858,498	Total for All Industries
1,496	1,490	\$4,803,612	23 / Construction
4	4	\$11,746	33 / Manufacturing (part 3 of 3)
4	4	\$7,022	56 / Administrative and Support and Waste Management and Remediation Services
2	2	\$15,214	62 / Health Care and Social Assistance
2	2	\$7,752	53 / Real Estate and Rental and Leasing
2	2	\$3,470	54 / Professional, Scientific, and Technical Services
1	1	\$5,000	71 / Arts, Entertainment, and Recreation
1	1	\$2,926	32 / Manufacturing (part 2 of 3)
1	1	\$1,755	42 / Wholesale Trade

EYEWASH MAINTENANCE CAN PREVENT INFECTIONS

A related standard (29 CFR 1910.151(c)) requires eyewash facilities in workplaces where corrosive chemicals are used. Having evewashes be available if a worker's eves are exposed to hazmat is important, but if they are not properly maintained, they may contain organisms known to cause infections, such as Acanthamoeba, Pseudomonas and Legionella. Eye injuries, as well as skin damage or a compromised immune system, can leave workers who come in contact with these organisms especially susceptible to infection. Serious health effects, including permanent vision loss, neurological infections and severe lung diseases are possible. Eye pain, blurred vision, light sensitivity, and eye inflammation are also possible.

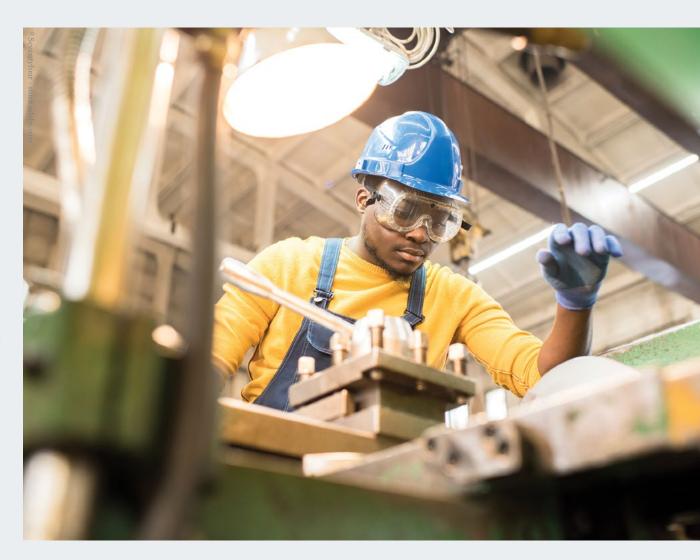
To properly maintain eyewash stations, refer to manufacturer instructions on how often and how long to activate specific plumbed systems in order to reduce microbial contamination and generally reference the American National Standards Institute (ANSI) standard Z358.1-2014. Maintenance procedures include flushing the system and using only solutions appropriate for flushing eyes. For more information, see OSHA's FactSheet, Health Effects from Contaminated Water in Eyewash Stations: https://tinyurl.com/2p8ehz8v

- Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer.
- Protectors shall meet the following minimum requirements:
 - They shall provide adequate protection against the particular hazards for which they are designed.
- They shall be reasonably comfortable when worn under the designated conditions.
- They shall fit snugly and shall not unduly interfere with the movements of the wearer.
- o They shall be durable.
- o They shall be capable of being disinfected.
- They shall be easily cleanable.

Compliance Resources

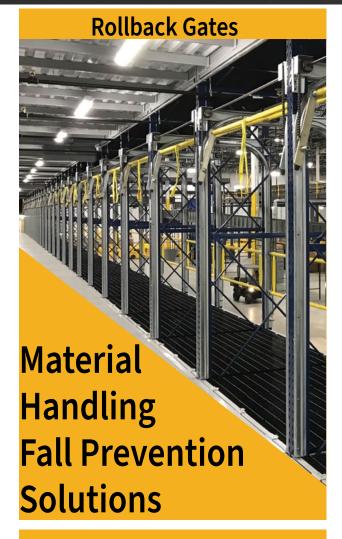
The **American Optometric Association** (AOA) offers information about workplace eye safety, including the two major reasons for on-the-job eye injuries; the four types of potential eye hazards at work and a discussion of types of eye protection. Click here to visit the AOA website: https://tinyurl.com/4v7aj98x

Why You Should Consider Foam-Lined Eye and Face Protection explains why this type of eyewear is being adapted in more and more workplaces and how the inserts that prevent foreign particles from making contact with the eyes. Click here to read the article: https://tinyurl.com/3yrv2vjv_WMHS





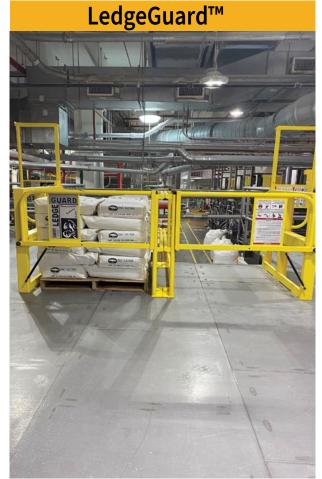




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OSHA Standard 29 CFR 1910.178: Powered Industrial Trucks

Ranking: #9

The Risks

Powered industrial trucks, commonly called forklifts or lift trucks, are used in many industries, primarily to move materials. They can also be used to raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers. Powered industrial trucks can either be ridden by the operator or controlled by a walking operator. Different types of powered industrial trucks present different operating hazards. For example, a sit-down, counterbalanced high-lift rider truck is more likely than a motorized hand truck to be involved in a

falling load accident because the sit-down rider truck can lift a load much higher than a hand truck. Workplace type and conditions are also factors in hazards commonly associated with powered industrial trucks. Retail establishments often face greater challenges than other worksites in maintaining pedestrian safety. Beyond that, many workers can also be injured when (1) lift trucks are inadvertently driven off loading docks; (2) lifts fall between docks and an unsecured trailer; (3) they are struck by a lift truck; or (4) they fall while on elevated pallets and tines.

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
1,624	1,088	\$5,572,637	Total for All Industries
353	233	\$1,144,514	33 / Manufacturing (part 3 of 3)
271	171	\$799,833	32 / Manufacturing (part 2 of 3)
250	151	\$904,462	42 / Wholesale Trade
162	142	\$387,538	23 / Construction
139	93	\$640,124	49 / Transportation and Warehousing (2 of 2)
105	64	\$394,204	44 / Retail Trade (part 1 of 2)
85	60	\$296,085	31 / Manufacturing (part 1 of 3)
57	41	\$343,122	48 / Transportation and Warehousing (1 of 2)
54	29	\$129,007	81 / Other Services (except Public Administration)
47	31	\$141,741	56 / Administrative and Support and Waste Management and Remediation Services

Major Provisions of the Standard

- All new powered industrial trucks acquired and used by an employer shall meet the design and construction requirements for powered industrial trucks established in the "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969," except for vehicles intended primarily for earth moving or over-theroad hauling.
- Approved trucks shall bear a label or some other identifying mark indicating approval by the testing laboratory. See paragraph (a)(7) of this section and paragraph 405 of "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969."
- Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.
- If the truck is equipped with frontend attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the approximate weight of the truck and

- attachment combination at maximum elevation with load laterally centered.
- The user shall see that all nameplates and markings are in place and are maintained in a legible condition.
- As used in this section, the term, approved truck or approved industrial truck means a truck that is listed or approved for fire safety purposes for the intended use by a nationally recognized testing laboratory, using nationally recognized testing standards.
- Designations. For the purpose of this standard there are eleven different designations of industrial trucks or tractors as follows: D, DS, DY, E, ES, EE, EX, G, GS, LP, and LPS.
 - The D designated units are units similar to the G units except that they are diesel engine powered instead of gasoline engine powered.
 - The DS designated units are diesel powered units that are provided with additional safeguards to the exhaust, fuel and electrical systems. They may be used in some locations where a D unit may not be considered suitable.
- The DY designated units are diesel powered units that have all the safeguards of the DS units and in addition do not have any electrical equipment





including the ignition and are equipped with temperature limitation features.

- The E designated units are electrically powered units that have minimum acceptable safeguards against inherent fire hazards.
- The ES designated units are electrically powered units that, in addition to all the requirements for the
- E units, are provided with additional safeguards to the electrical system to prevent emission of hazardous sparks and to limit surface temperatures. They may be used in some locations where the use of an E unit may not be considered suitable.
- The EE designated units are electrically powered units that have, in addition to all the requirements for

- the E and ES units, the electric motors and all other electrical equipment completely enclosed. In certain locations the EE unit may be used where the use of an E and ES unit may not be considered suitable.
- The EX designated units are electrically powered units that differ from the E, ES, or EE units in that the electrical fittings and equipment are so designed, constructed and assembled that the units may be used in certain atmospheres containing flammable vapors or dusts.
- The G designated units are gasoline powered units having minimum acceptable safeguards against inherent fire hazards.
- The GS designated units are gasoline powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems. They may be used in some locations where the use of a G unit may not be considered suitable.
- The LP designated unit is similar to the G unit except that liquefied petroleum gas is used for fuel instead of gasoline.
- The LPS designated units are liquefied petroleum gas powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems.
 They may be used in some locations where the use of an LP unit may not be considered suitable.

Compliance Resources

An OSHA Alert entitled, *Protect Workers Operating* and *Working Near Forklifts* is available at https://tinyurl.com/ywp392xj. It contains a safety checklist that includes the use of seatbelts, adherence to rated loads and speed limits, and making sure loads are balanced and there is sufficient clearance when raising and loading materials. *WMHS*



OSHA Standard 29 CFR 1910.212: General Requirements for All Machines

Ranking: #10

Machinery and Machine Guarding

Moving machine parts have the potential to cause severe workplace injuries, such as crushed fingers or hands, amputations, burns or blindness. Workers who operate and maintain machinery suffer approximately 18,000 amputations, lacerations, crushing injuries, abrasions, and over 800 deaths per year. Safeguards are essential for protecting workers from these preventable injuries. Any machine part, function, or process that may cause injury

must be safeguarded. When the operation of a machine or accidental contact injure the operator or others in the vicinity, the hazards must be eliminated or controlled. Mitigating machine hazards requires a hazard analysis that includes identifying activities, mechanical components and mechanical motions that could pose a danger to machine operators.

Major Provisions of the Standard

• One or more methods of machine guarding shall be provided to

protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are-barrier guards, twohand tripping devices, electronic safety devices, etc.

- Guards shall be affixed to the machine where possible and secured elsewhere if for any reason hazard in itself.
- being processed.
- The point of operation of machines whose operation exposes an employee to injury, shall be guarded. The guarding device shall be in conformity with any appropriate standards therefore, or, in the absence of applicable specific standards, shall be so designed and constructed as to prevent the operator from having any part of his/her body in the danger zone during the operating cycle.

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attachment to the machine is not possible. The guard shall be such that it does not offer an accident • Point of operation is the area on

- a machine where work is actually performed upon the material

The Numbers

OSHA enforcement statistics for this standard for the period of October 2020 through September 2021:

Citations	Inspections	Penalty	Industry Classification
1,281	1,144	\$10,435,925	Total for All Industries
558	481	\$4,623,282	33 / Manufacturing (part 3 of 3)
287	259	\$2,240,860	32 / Manufacturing (part 2 of 3)
167	151	\$1,438,108	31 / Manufacturing (part 1 of 3)
69	65	\$506,469	42 / Wholesale Trade
42	40	\$595,347	44 / Retail Trade (part 1 of 2)
29	27	\$209,718	56 / Administrative and Support and Waste Management and Remediation Services
21	20	\$222,788	81 / Other Services (except Public Administration)
16	14	\$39,211	11 / Agriculture, Forestry, Fishing and Hunting
15	14	\$0	92 / Public Administration
14	14	\$194,999	23 / Construction
13	12	\$111,869	49 / Transportation and Warehousing (2 of 2)

- Special hand tools for placing and removing material shall be such as to permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall not be in lieu of other guarding required by this section but can only be used to supplement protection provided.
- The following are some of the machines which usually require point of operation guarding:
 - o Guillotine cutters
 - o Shears
 - o Alligator shears
 - Power presses
 - $\circ \, Milling \,\, machines$
 - o Power saws
 - Jointers
 - $\circ \, Portable \, power \, tools \,$
 - \circ Forming rolls and calenders

- Revolving drums, barrels, and containers shall be guarded by an enclosure which is interlocked with the drive mechanism, so that the barrel, drum, or container cannot revolve unless the guard enclosure is in place.
- When the periphery of the blades of a fan is less than seven feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than 1/2 inch.
- Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

Compliance Resources

OSHA has a *Machine Guarding* eTool that focuses on recognizing and controlling common amputation hazards associated with the operation and use of

certain types of machines. You can access it at: www. osha.gov/etools/machine-guarding

Amputation is one of the most severe and crippling types of injuries in the occupational workplace, and often results in permanent disability. OSHA's publication, *Safeguarding Equipment and Protecting Employees from Amputations* provides guidance on preventing amputations. It explains how to recognize and control common amputation hazards associated with the operation and use of certain types of machines, including saws, presses, and plastics machinery. You can find it at: https://tinyurl.com/2s3fck4e *WMHS*



Fall Protection Systems From Gorbel



Every year since 2012, fall protection violamost common causes of work injuries and deaths, tions have earned top spots on OSHA's Top 10 list of most cited violations. In 2017, there were 6,887 total violations cited by OSHA, highlighting the need for warehouse companies to improve their fall protection measures. Failure to make fall protection a top priority can result in harsh penalties and fines for your construction company. Even more important, inadequate fall protection can put your employees at a higher risk for injury and death.

The path to effective fall protection begins with a top-notch safety training program. When properly organized, safety training will effectively engage employees and prime them for safe and productive employment. With OSHA citing falls as one of the



it is paramount that employees receive in-depth training on fall protection strategies. Employees should have a strong working knowledge of the most common causes of falls and the specific measures they can take to avoid high-risk situations.

Establishing a culture of safety starts with the active participation of senior management and stakeholders. Senior managers must then secure the buy-in of supervisors, who must secure a commitment to safety from front-line employees.

Once you have established a culture of safety and identified the high-risk areas in your production facility, it is time to focus on your fall protection equipment. By investing in robust, dependable fall protection systems, you can reduce the risk of injuries due to falls from higher levels.

Not all fall protection solutions are created equal, so it is important to carefully evaluate equipment providers to ensure that the systems you purchase are both reliable and cost-effective. Fortunately, Gorbel offers a host of ergonomic fall protection systems that are ideal for use on construction sites. Here are a few of the products that can help you optimize fall protection:

• Overhead fall arrest system: Gorbel's Tether Track™ Rigid Rail Fall Arrest System offers workers mobility and flexibility while helping to

- prevent them from falling to lower levels. Most systems are made to accommodate multiple workers who weigh up to 310 pounds with their tools.
- Free standing systems: Gorbel's free standing Tether Track™ monorail fall protection systems are ideal for facilities with workers who maintain, inspect, and unload flatbed trucks and tankers. You can choose from heights up to 26 feet to provide adequate protection for workers.

There are many ways for companies like yours to safeguard against falls. However, the single best way to protect against falls is to contact an expert in the fall protection industry. With over 40 years of experience protecting the lives of employees, Gorbel has established itself as an international leader in the fall protection arena. The fall protection specialists with Gorbel are eager to assist you in your mission to protect your employees and look forward to assisting you.



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