**The objective of this exercise is to begin learning how to navigate OSHA regulations. It is not about knowing the answers to the questions, it is about knowing how to find the answers.**

1. **List the correct name for the OSHA regulation numbers listed below:**

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| 1. 29 CFR 1910.134 | 1910.134 - Respiratory protection |
| 1. 29 CFR 1910.179 | 1910.179 - Overhead and gantry cranes |
| 1. 29 CFR 1910.253 | 1910.253 - Oxygen-fuel gas welding and cutting |
| 1. 29 CFR 1926.651 | 1926.651 - Specific Excavation Requirements |
| 1. 29 CFR 1904.5 | 1904.5 - Determination of work-relatedness |

1. **List the correct Title, SubPart Letter, Regulation Name, and Regulation Number for the safety and health topics listed below:**

*for example: The regulation for Ladders would be 29 CFR Subpart D Walking-Working Surfaces 1910.23*

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| 1. Stairs | [29 CFR Subpart D Walking-Working Surfaces 1910.25](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.25) |
| 1. Occupational Noise Exposure | [29 CFR Subpart G Occupational Health and Environmental Control 1910.95](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95) |
| 1. Flammable Liquids | [29 CFR Subpart H Hazardous Materials 1910.106](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.106) |
| 1. Confined Spaces | [29 CFR Subpart J General Environmental Controls 1910.146](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.146) |
| 1. Control of Hazardous Energy | [29 CFR Subpart J General Environmental Controls 1910.147](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.147) |

1. **For each organization listed below, list at least one national consensus standard incorporated by reference in the OSHA regulations.** **Include the entire name of the standard and the correct year as referenced by OSHA (Hint: Subpart A)**

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| 1. American National Standard Institute | 29 CFR SubpartA Occupational Safety and Health Standards 1910.6(e)(26)  ANSI B31.2-68 Fuel Gas Piping, IBR approved for §1910.261(g)(18)(iii)  2018 |
| 1. American Society of Mechanical Engineers | 29 CFR SubpartA Occupational Safety and Health Standards 1910.6(g)(4)  ASME Boiler and Pressure Vessel Code, Sec. VIII, Paragraph UG-84, 1968, IBR approved for §1910.104 (b)(4)(ii) and (b)(5)(iii)  2021 |
| 1. ASTM International | 29 CFR SubpartA Occupational Safety and Health Standards 1910.6(h)(7)  ASTM B 88-69, Seamless Copper Water Tube, IBR approved for §1910.110  2021 |
| 1. Compressed Gas Association | 29 CFR SubpartA Occupational Safety and Health Standards 1910.6(l)(6)  CGA P-1 (1965) Safe Handling of Compressed Gases, IBR approved for §1910.101(b).  1956 |
| 1. National Fire Protection Association | 29 CFR SubpartA Occupational Safety and Health Standards 1910.6(t)(22)  NFPA 91-1969 Standards for Blower and Exhaust Systems, IBR approved for §1910.108(b)(1).  1969 |

1. **What were the top 10 most frequently cited OSHA Regulations for General Industry in FY2021? List from most cited to least cited, list the Regulation Title and Number.** **Additionally, at the end of the list, provide the URL from OSHA’s website where you found the answer.**

①　29 CFR 1910.212(a)(1) Machine Guarding - Types of Guarding Methods

②　29 CFR 1910.134(e)(1) Respirators - Shall Provide Respirators Medical Evaluations

③　29 CFR 1910.1200(e)(1) Hazard Communication - Written Program

④　29 CFR 1910.134(f)(2) Respirators - Employer Shall Ensure An Employee is Fit Tested

⑤　29 CFR 1910.1200(h)(1) Hazard Communication - Information and Training

⑥　29 CFR 1910.134(c)(1) Respirators - Employer Establishing a Written Respirator Program

⑦　29 CFR 1910.147(c)(4)(i) Hazardous Energy Control - Procedures Shall be Developed

⑧　29 CFR 1910.212(a)(3)(ii) Machine Guarding - Point of Operations

⑨　29 CFR 1910.178(l)(1)(i) Powered Industrial Trucks – Competency Training

⑩　29 CFR 1910.1200(g)(8) Hazard Communication - SDS's Readily Accessible

[MFC General Industry FY2021 (osha.gov)](https://www.osha.gov/sites/default/files/MFC_General_Industry_FY21.pdf)

Look up the answers to the questions on [www.osha.gov](http://www.osha.gov). Unless otherwise instructed, cite the most appropriate General Industry regulation number and provide a URL link for where you found the answer.

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|  | OSHA Regulation  Ex. 1910.6(a)(i) |  |
|  | 1910.29(b)(1)(2)(3)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.29> | What are the acceptable dimensions of a standard guardrail?  Height – **42 inches (107 cm), plus or minus 3 inches (8 cm), above the walking-working surface**  Midrail – **at least 21 inches (53 cm) high**  How much force should a guardrail system be capable of withstanding?  **At least 200 pounds (890 N) applied in a downward** |
|  | 1910.95(b)(2)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95> | For how long may an employee be exposed to noise at 102 dbA without protection?  **1.5 hours** |
|  | 1910.1200(h)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200> | How often must employees receive training on SDS for chemicals in their worksite?  **Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area.** |
|  | 1910.28(b)(1)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.28> | In a manufacturing plant, what is the maximum height in which an employee may be exposed to an unprotected side or edge without the use of fall protection systems?  **4 feet (1.2 m)** |
|  | 1910.134(h)(3)(iii)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134> | How often must Self Contained Breathing Apparatus be inspected?  **Monthly** |
|  | 1910.147(a)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.147> | What industries are **not** covered by the lockout/tagout regulation?  **Construction and agriculture employment**  **Installations under the exclusive control of electric utilities for the purpose of power generation, transmission and distribution, including related equipment for communication or metering.**  **Exposure to electrical hazards from work on, near, or with conductors or equipment in electric-utilization installations, which is covered by subpart S of this part; and**  **Oil and gas well drilling and servicing.** |
|  | 1910.178(m)(5)(ii)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.178> | When is a forklift considered “unattended”?  **A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.** |
|  | 1910.303（h）（5）（vi）  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.303> | What is the minimum clear working distance that must be maintained in front of an electrical service component such as a control panel, relay switch, or motor control center that operates at 100 kV and has exposed live parts on one side and concrete walls on the other side?  **3m 10ft** |
|  | 1910.213(b)(4)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.213> | On a typical table saw used for cutting plywood, where should power controls be located?  Power controls and operating controls should be located **within easy reach of the operator while he is at his regular work location**, making it unnecessary for him to reach over the cutter to make adjustments. |
|  | 1910.215(a)(4)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.215> | On a typical Bench Grinder, how far away from grinding wheel, must the work rest be affixed?  Work rests. On offhand grinding machines, work rests shall be used to support the work. They shall be of rigid construction and designed to be adjustable to compensate for wheel wear. Work rests shall be kept adjusted closely to the wheel with a **maximum opening of one-eighth inch** to prevent the work from being jammed between the wheel and the rest, which may cause wheel breakage. |
|  | 1910.265(c)(24)(v)(a)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.265> | In the Sawmill Industry, ropes, cables, slings and chains are used to move equipment and product through the process. What is an indicator that a 6’ x6’ lay of wire rope is defective and must be removed from service?  **When three broken wires are found in one lay of 6 by 6 wire rope** |
|  | 1910.146(b)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.146> | What does OSHA consider the act of entering a permit required confined space to be?  "Entry" means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space. |
|  | 1910.217(a)(5)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.217> | What types of equipment are not considered Mechanical Power Presses?  Excluded machines. Press brakes, hydraulic and pneumatic power presses, bulldozers, hot bending and hot metal presses, forging presses and hammers, riveting machines and similar types of fastener applicators are excluded from the requirements of this section. |
|  | 1910.157（g）  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.157> | An office environment has fire extinguishers placed throughout the building to meet local fire codes. Their Fire Prevention Plan and Training instructs all employees to evacuate immediately When the fire alarm sounds. What is OSHA’s requirement for employee fire extinguisher training in this circumstance?  29 CFR Subpart L Fire Protection 1910.157(g) |
|  | 1910.37(b)(6)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.37> | What is the minimum illumination requirement for exit signs?  Each exit sign must be illuminated to a surface value of at least five foot-candles **(54 lux)** by a reliable light source and be distinctive in color. Self-luminous or electroluminescent signs that have a minimum luminance surface value of at least .06 footlamberts **(0.21 cd/m2)** are permitted. |
|  | 1910.107(c)(2)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.107> | What is the minimum separation between any open flame or spark producing equipment and an unpartitioned paint spray area?  There shall be no open flame or spark producing equipment in any spraying area nor within **20 feet** thereof, unless separated by a partition. |
|  | 1926.453(b)(2)(v)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.453>  1910.140(d)(3)  https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.140 | When can a body belt be used in an aerial lift?  A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.  Body belts. Body belts are prohibited as part of a personal fall arrest system. |
|  | 1910.1030(c)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030> | What vaccinations must be offered to employees who have occupational exposure to bloodborne pathogens?  **Hepatitis B Vaccination** |
|  | 1910.141(c)(1)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141> | How many toilets must be provided for an industrial workplace with 25 females and 200 males?  **10** |
|  | <https://www.osha.gov/laws-regs/standardinterpretations/2007-01-16-0#:~:text=Accordingly%2C%20in%20workplaces%20where%20serious%20accidents%20such%20as,site%20who%20is%20trained%20to%20render%20first%20aid>. | In either Construction or General Industry, in the absence of an infirmary, clinic, or hospital in near proximity to the workplace, how quickly must the employer ensure that emergency medical treatment can be provided?  There is no specific number yet in the OSHA. However, it can be found in the Standard Interpretations that OSHA has long interpreted the term "near proximity" to mean that emergency care must be available within no more than 3-4 minutes from the workplace, an interpretation that has been upheld by the Occupational Safety and Health Review Commission and by federal courts. |
|  | 1910.151(c)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.151>  Health Effects from Contaminated Water in Eyewash Stations  <https://www.osha.gov/sites/default/files/publications/OSHA3818.pdf> | Under what circumstances are Eyewash stations required to be provided?  Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.  Eyewash facilities are required in workplaces where corrosive chemicals are used (29 CFR 1910.151(c)), as well as in HIV and HBV research laboratories and production facilities (1910.1030(e)(3)(i)), and where there is any possibility that an employee’s eyes may be splashed with solutions containing 0.1 percent or greater formaldehyde (1910.1048(i)(3)). |
|  | 1910.253(b)(4)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.253> | What are the options for storing Oxygen cylinders and fuel-gas cylinders together?  Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of **20 ft (6.1m)** or by a non combustible barrier at least 5 ft (1.5m) high having a fire-resistance rating of at least one and a half hour |
|  | 1910.253(b)(1)(iv)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.253> | When should a valve protection cap be used on an oxygen cylinder?  All cylinders with a water weight capacity of over **30 pounds (13.6 kg)** shall be equipped with means of connecting a valve protection cap or with a collar or recess to protect the valve. |
|  | Standard Interpretations  <https://www.osha.gov/laws-regs/standardinterpretations/2006-05-08#:~:text=If%20these%20parameters%20are%20not%20met%2C%20the%20employer,cylinder%20cart%20or%20attached%20to%20the%20vertical%20surface>. | What is OSHA’s position on the use of the “24 hour rule” with respect to storage vs use of oxygen and acetylene welding cylinders?  If the rule in §1926.350(a)(10) are not meet, then the employer must apply the 24-hour rule to determine if the storage requirement apply.  PS: §1926.350(a)(10)  (1) No more than a single acetylene cylinder and a single oxygen cylinder are on a cylinder cart. The cylinder cart must be specifically designed to hold/carry oxygen and acetylene cylinders in the upright position. The cylinders must be securely held to the cart (such as by straps, chains or other securing device).  (2) The cart is on a firm, level surface.  (3) The cart is not in an area where there is a reasonably foreseeable risk of being struck by vehicles, equipment, or materials (such as in a pathway for vehicles on a construction site).  (4) Both cylinders either have valves closed with protection caps on or are connected to a properly functioning regulator. |
|  | 1910.38(b)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.38> | When must an employer have a written emergency action plan?  An emergency action plan must be in writing, kept in the workplace, and available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees. |
|  | 29 CFR Subpart R Special Industries  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910SubpartR> | List 3 Vertical Regulations in the General Industry Regulation  29 CFR Subpart R Pulp, paper and paperboard mills 1910.261  29 CFR Subpart R Textiles 1910.262  29 CFR Subpart R Bakery equipment 1910.263 |
|  | 1910.184(d)  1910.184(e)(3)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.184> | How often must slings be inspected?  **Each day before being used**, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.  In addition to the inspection required by paragraph (d) of this section, a thorough periodic inspection of alloy steel chain slings in use shall be made on a regular basis, to be determined on the basis of (A) frequency of sling use; (B) severity of service conditions; (C) nature of lifts being made; and (D) experience gained on the service life of slings used in similar circumstances. Such inspections shall in no event be at intervals greater than once **every 12 months**. |
|  | 1910.212(a)(3)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.212> | How does OSHA define a “point of operation” on a piece of machinery?  Point of operation is the area on a machine where work is actually performed upon the material being processed. |
|  | 1910.212(a)(5)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.212> | In General Industry machine guarding, when the periphery of the blades of a fan is less than \_\_\_\_\_\_7\_\_\_\_\_\_ above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than \_\_\_\_\_\_\_one-half\_\_\_\_\_\_\_\_\_\_. |
|  | 1910.178(k)(3)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.178> | When using a powered industrial truck to load a highway truck (semi-trailer), what is the requirement for stabilizing the trailer during loading or unloading while the Powered Industrial truck will be boarding?  Fixed jacks may be necessary to support a semitrailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor. |
|  | 1910.178(l)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.178> | What are the required training frequencies for Powered Industrial Truck operators?  There is no specified training frequencies for powered industrial truck operators yet. However, it can be founded that according to 1910.178(l) Operator training, *prior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the training required by this paragraph (l), except as permitted by paragraph (l)(5).* |
|  | Standard Interpretations  <https://www.osha.gov/laws-regs/standardinterpretations/2013-06-10#:~:text=An%20awareness%20barrier%2C%20such%20as%20a%20chain%20equipped,to%20the%20area%20in%20which%20such%20hazards%20exists>. | When are awareness barriers, such as a chain equipped with a warning sign or similar type of guarding, acceptable to satisfy the OSHA regulations for machine guarding?  Generally, OSHA would not consider an awareness barrier as guarding under Machine and Machine Guarding. However, it may be possible for **an employer to address moving parts hazards by eliminating employee access to the area** in which such hazards exists. |
|  | Standard Interpretation  <https://www.osha.gov/laws-regs/standardinterpretations/2001-05-03-0#:~:text=A%20worker%20may%20enter%20or%20exit%20an%20aerial,components%20must%20meet%20the%20criteria%20in%20%C2%A71926.502%20%28d%29>.  1926.501(b)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.501> | When is it allowable for a worker to climb out of an aerial lift basket?   1. When the aerial lift basket rests on or adjacent to an elevated surface 2. If the aerial lift is at height above 6 feet, fall protection such as guardrails or a fall arrest system is required. |
|  | 1910.23(c)(11)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.23> | In general industry, portable ladders used to gain access to an upper landing surface have side rails that extend at least \_\_\_3 feet (0.9 m) \_\_\_\_ above the upper landing surface.  Portable ladders used to gain access to an upper landing surface have side rails that extend at least 3 feet (0.9 m) above the upper landing surface |
|  | 1910.36(g)(2)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.36> | According to OSHA, what is the minimum width of an exit route at any point?  An exit access must be at least **28 inches (71.1 cm)** wide at all points |
|  | 1910.68(d)(1)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.68> | What types of materials may be transported in a manlift?  Proper use of manlifts. **No freight, packaged goods, pipe, lumber, or construction materials** of any kind shall be handled on any manlift. |
|  | 1910.242(b)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.242> | Under what conditions is it permissible to use compressed air for cleaning?  Compressed air shall not be used for cleaning purposes except where reduced to less than **30 p.s.i.** and then only with effective chip guarding and personal protective equipment. |
|  | 1910.141(c)(1)(i)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141>  Interpretation of 29 CFR 1910.141(c)(1)(i): Toilet Facilities  <https://www.osha.gov/laws-regs/standardinterpretations/1998-04-06-0>  Standard Interpretation  <https://www.osha.gov/laws-regs/standardinterpretations/2003-04-23> | Is it a violation of OSHA regulations to refuse to allow an employee to go to the restroom? Explain your answer.  No. Actually, it is a kind of controversial topic.  In fact, there have be some arguments on this topic. For example the Aprial 6, 1998 memorandum to the OSHA Regional Administrators, where it clearly said that “Restrictions on access (to the restroom) must be reasonable, and may not cause extended delays.” Which approves that the employer have the right to ensure reasonable working time of the employees to maintain enough working time per day. However, the memo also clarify that the employees have the right to get access to the restroom when there is a need. Anyway, the memo update the citation policy that *“Employee complaints of restrictions on toilet facility use should be evaluated on a case-by-case basis to determine whether the restrictions are reasonable. Careful consideration must be given to the nature of the restriction, including the length of time that employees are required to delay bathroom use, and the employer's explanation for the restriction.”*  That is the reason why it is not a violation of OSHA regulations to refuse to allow an employee to go to the restroom. But the employee have the right to complaints the restriction given by the employers. |
|  | 1926.451(g)(3)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.451> | Are employees required to wear safety harnesses and lanyards when working on a scissor lift?  No. But lanyards must be equipped.  Scissors lifts do not fall within any of the categories but the definition of a scaffold. So the regulations on the scaffold (1926.451) should be meet for the scissors lift. According to 1926.451(g)(3), *“personal fall arrest systems used on scaffolds shall be attached by lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member.”* |
|  | 1910.132(h)  <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132> | What type of Personal Protective Equipment does not have to be supplied by the employer?  Non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and non-specialty prescription safety eyewear, provided that the employer permits such items to be worn off the job-site.  Metatarsal guards and allows the employee, at his or her request, to use shoes or boots with built-in metatarsal protection  The logging boots required by 29 CFR 1910.266(d)(1)(v)  Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots; or ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen. |