

Which Standards Apply

29 CFR 1926—CONSTRUCTION INDUSTRY STANDARDS

OVERVIEW:

North Carolina is an <u>OSHA-approved State Plan</u> that covers both private and state and local government workers. With certain exceptions, the N.C. Department of Labor (NCDOL) adopts federal OSHA standards verbatim. <u>Standards information and activity</u> provides the status of the Occupational Safety and Health (OSH) Division's adoption of federal standards and compliance dates. When OSH Administrative rules differ from federal OSHA standards, employers must comply with the state-specific rules.

The OSH Division <u>enforcement procedures</u> provide guidance to compliance personnel, to ensure responsibilities related to enforcement of the OSHA standards are carried out in an effective, efficient and consistent manner. Some of the guidance documents are federal documents that have been adopted for use in N.C. while others have been created specifically for N.C. To learn more about the inspection process, go to the <u>compliance inspection process</u> webpage.

Many employers have questions regarding which Occupational Safety and Health standards apply to them. For this reason, the OSH Division has put together information at the following links that will help the employer determine which standards apply to them as it pertains to recordkeeping, general industry, construction, agriculture, shipyard employment (public sector only) and marine terminals (public sector only). This includes North Carolina state-specific standards. The OSH Division does not have enforcement jurisdiction for the longshoring standards.

This document will address standards applicable to **Construction** and applicable **North Carolina State-Specific** standards. <u>29 CFR Part 1926 Construction</u> standards apply to all places of employment where employees are engaged in "construction work". <u>Construction work</u> means construction, alteration, and/or repair, including painting and decorating.

Note: Many employers may need to comply with both General Industry standards and Construction standards depending on the work that is being performed.

INSTRUCTIONS:

To assist the employer in identifying which **Construction** and **North Carolina State-Specific standards** apply to them, questions regarding the subparts (i.e., North Carolina subchapters) and subsequent standards are provided to help the employer identify which are applicable to the worksite. Once the standards have been identified, the employer is better able to develop their own safety and health management program.

To start this process, please go through each subpart below to identify the standards that apply to your organization by answering yes, no, or unsure. Be sure to come back to the subpart or standard for any answers that were identified as "unsure".

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KEY POINTS:

- Whenever a standard provides a "scope" and/or "application", be sure to read it. The scope and application state who, what or how a standard applies. It also provides any exemptions from the standard. In some cases, you may find that a standard does not apply to your organization based on the scope and application.
- If a standard provides "definitions", be sure to read them. Information about a standard such as who and how it applies can also be found in a definition.
- Any time you see "general requirements" listed as a standard in a subpart that you need to comply with, that will generally be an automatic "yes".
- <u>Subpart A</u> and <u>subpart B</u> covers consensus standards incorporated by reference, rules of construction and other regulatory information pertaining to the OSHA standards. <u>Subpart BB</u> is currently reserved. As such, these subparts will not be covered in this document.
- Most standards have <u>interpretations</u> which should be referenced when available for clarification of the standard. Other useful <u>compliance enforcement documents</u> to reference include compliance directives (CPL), field operations manual (FOM), standards directives (STD), and operational procedure notices (OPN).

"WHICH STANDARDS APPLY"—EXERCISE

Subpart C—General Safety and Health Provisions

Does "Subpart C—General Safety and Health Provisions" apply to you?

This subpart provides the standards for general safety and health provisions (e.g., inspections, programs), training and education, first aid and medical attention, fire protection, housekeeping, illumination, sanitation, certifications, access to exposure records, egress and emergency action plans. For construction work, most of the standards within this subpart will apply.

Note: Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Does the employer have accident prevention responsibilities? Yes / No / Unsure

The following standard states that the employer has the following accident prevention responsibilities:

- Initiating and maintaining safety and health programs needed to comply with the construction standards
 - Safety and health programs are to include frequent and regular inspections of job site, materials, and equipment.
- Locking and tagging of unsafe equipment, machinery, tools, and materials by a competent person.
- Permitting only qualified employees, by training and/or experience, to use equipment and machinery.

<u>Qualified</u> - Means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

This standard also includes the following "Compliance duties owed to each employee":

- Provide personal protective equipment, including respirators, that may be needed for employees to protect themselves as required by the construction standards.
- Provide training to employees and/or institute a training program as required by the construction standards.

1926.20—General safety and health provisions.

Does the employer have the responsibility to provide safety training? Yes / No / Unsure

The following standard states that the employer is responsible for providing safety and health training programs that include recognition and avoidance of unsafe condition and regulations applicable to their environment to control and eliminate hazards or other exposure to illness and injury. It includes employee instruction regarding the safe handling and/or use poisons, caustics, and other harmful substances and be made aware of the potential hazards, personal hygiene, and personal protective measures required.

This standard also requires instruction to employees regarding the potential hazards, and how to avoid injury, and the first aid procedures to be used in the event of injury. In addition, it provides for employee training on the safe handling and use of flammable liquids, gases, or toxic materials shall be instructed in the safe handling and use of these materials.

1926.21—Safety training and education.

Is the employer required to provide first aid and medical services? Yes / No / Unsure

The following standard requires that first aid services and provisions for medical care be available for every employee covered by the construction standards. It also references that the standards prescribing specific requirements for first aid, medical attention, and emergency facilities are contained in subpart D—medical services and first aid.

1926.23—First aid and medical attention.

Is fire protection and prevention required onsite? Yes / No / Unsure

The following standard requires the employer to develop and maintain an effective fire protection and prevention program at the job site throughout all phases of the construction, repair, alteration, or demolition work. This standard also states that the employer shall ensure the availability of the fire protection and suppression equipment required by subpart F—fire protection and prevention.

<u>1926.24</u>—Fire protection and prevention.

Is housekeeping required at the job site? Yes / No / Unsure

The following standard addresses keeping work areas, passageways and stairs cleared of debris, form and scrap lumber and protruding nails. It requires removal of combustible scrap and debris at regular intervals and that containers be available for waste, trash, rags, and other refuse which should be disposed of during frequent and regular intervals.

Refer to the <u>rules of construction</u> for more information on responsibilities regarding removal of debris at the job site.

1926.25—Housekeeping.

Do you need to provide illumination? Yes / No / Unsure

The following standard states that construction areas, aisles, stairs, ramps, runways, corridors, offices, shops, and storage areas need to be lighted with natural or artificial illumination where work is in progress. It also references minimum illumination requirements for the work area are in subpart D—illumination.

1926.26—Illumination.

Do you need provide sanitation (e.g., water, toilets)? Yes / No / Unsure

The following standard references that the health and sanitation requirements for drinking water are contained in subpart D—<u>sanitation</u> which also provides additional requirements for toilets, food handling, washing facilities, showers, eating and drinking areas, vermin control and change rooms.

<u>1926.27</u>—Sanitation.

Do you need to provide personal protective equipment? Yes / No / Unsure

The following standard states that the employer is responsible for requiring appropriate personal protective equipment for all operations where needed to protect employees from hazards or when an OSHA standard requires them. It also references that the standards governing the use, selection, and maintenance of personal protective and lifesaving equipment are provided in subpart E—personal protective and life saving equipment.

The North Carolina state-specific standard, 13 NCAC 07F.0202—general safety and health provisions, provides 1926.28—personal protective equipment, [paragraph (a)] is amended to read as follows: "(a) The employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where this part indicates the need for using such equipment to reduce the hazards to the employees."

<u>1926.28</u>—Personal protective equipment.

Do you have pressure vessels or boilers? Yes / No / Unsure

The following standard requires current and valid certifications by an insurance company or regulatory authority for pressure vessels and boilers.

The standard references that more requirements can be found in subparts F—<u>fire protection and prevention</u> and O—motor vehicles, mechanized equipment and marine operations.

Other regulatory information pertaining to pressure vessels and boilers can be found on the NCDOL boiler bureau webpage.

<u>1926.29</u>—Acceptable certifications.

Do you build or repair ships? Yes / No / Unsure

The following standard states that shipbuilding, ship repairing, alterations and maintenance performed on ships, except naval ship construction is covered under the Occupational Safety and Health Act and that the safety and health standards in part 1915—shipyard employment apply.

1926.30—Shipbuilding and ship repairing.

Do any standards within this subpart apply to you? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1926.32—Definitions.

Do you conduct medical surveillance and/or exposure monitoring? Yes / No / Unsure

The following standard applies to all employee exposure and medical records, and analyses thereof, of such employees, whether or not, the records are mandated by specific occupational safety and health standards.

It is applicable to each employer who makes, maintains, contracts for, or has access to employee exposure or medical records, or analyses thereof, pertaining to employees exposed to toxic substances or harmful physical agents. This standard applies to all employee exposure and medical records, and analyses thereof, made or maintained in any manner, including on an in-house or contractual (e.g., feefor-service) basis.

This standard provides requirements for the preservation of records as follows: medical records for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years and employee exposure records shall be preserved and maintained for at least thirty (30) years. It provides requirements pertaining to record access, trade secrets, employee information, and transfer of records.

<u>Exposure or exposed</u> - Means that an employee is subjected to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure, but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.

Employee exposure record - Means a record containing any of the following kinds of information:

• Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained;

- Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;
- (Material) safety data sheets indicating that the material may pose a hazard to human health; or
- In the absence of the above, a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.

<u>Employee medical record</u> - Means a record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including:

- Medical and employment questionnaires or histories (including job description and occupational exposures),
- The results of medical examinations (pre-employment, pre-assignment, periodic, or episodic) and laboratory tests (including chest and other X-ray examinations taken for the purpose of establishing a base-line or detecting occupational illnesses and all biological monitoring not defined as an "employee exposure record"),
- Medical opinions, diagnoses, progress notes, and recommendations,
- First aid records.
- Descriptions of treatments and prescriptions, and
- Employee medical complaints.

<u>1926.33</u>—Access to employee exposure and medical records (*References general industry standard*, <u>1910.1020</u>—Access to employee exposure and medical records).

Do you need to maintain a means of egress at the job site? Yes / No / Unsure

The following standard requires free and unobstructed egress from all parts of the building or structure at all times when it is occupied and that they should be continually maintained. It also provides requirements for marking exits.

1926.34—Means of egress.

Do you need an emergency action plan? Yes / No / Unsure

The following standard applies if a specific standard that you need to comply with requires a plan. These standards include 1910.64—process safety management of highly hazardous chemicals and 1926.65—hazardous waste operations and emergency response.

This standard requires a written plan that includes emergency procedures and route assignments, procedures for critical plant operations, procedures to account for all employees, rescue and medical duties, emergency reporting procedures, and contact information. The plan should include all types of

evacuations based on the emergency circumstances. It also requires an employee alarm system that is used to alert fire brigade members and employees.

The following OSHA construction standards require an emergency action plan that complies with the general industry standard, 1910.38—<u>emergency action plans</u>, as it applies to all emergency action plans required by a particular OSHA standard.

- 1926.60—<u>Methylenedianiline.</u>
- 1926.1144—<u>1,2-dibromo-3-chloropropane.</u>
- 1926.1145—Acrylonitrile.
- 1926.1147—Ethylene oxide.

The emergency action plan standard provides requirements pertaining to oral and written plans, procedures, training, plan review. It also requires an employee alarm systems such as the use of whistles, horns, and lights; (References general industry standard, 1910.165—employee alarm systems).

<u>1926.35</u>—Employee emergency action plans.

SUBPART C APPENDICES:

<u>Access to employee exposure and medical records</u> (1926.33 -References general industry standard, 1910.1020):

1910.1020, <u>appendix A</u> provides a sample authorization letter for the release of employee medical record information to a designated representative.

1910.1020, <u>appendix B</u> pertains to the availability of NIOSH registry of toxic effects of chemical substances (RTECS).

SUBPART C REFERENCES:

Aerial lifts

Competent person

Cranes and derricks

Emergency action plans

Employee alarm system

Employee exposure and medical records

Exits and exit routes

Fire prevention plans

Fire protection and prevention

Illumination

Lockout/tagout

Medical services and first aid

Personal protective equipment

Respiratory protection

Rules of construction

Sanitation

Stairways and ladders

Steel erection

Subpart F, fire protection and prevention

Subpart O, motor vehicles, mechanized equipment and marine operations

Subpart D—Occupational Health and Environmental Controls

Does "Subpart D—Occupational Health and Environmental Controls" apply to you?

This subpart contains the standards for medical services and first aid; sanitation; occupational noise; ionizing and non-ionizing radiation; gases, vapors, fumes, dusts and mists; illumination; ventilation; hazard communication; methylenedianiline; retention of DOT markings, placards and labels; lead; process safety management of highly hazardous materials; hazardous waste operations and emergency response (HAZWOPER); and criteria for design and construction of spray booths.

Note: Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you need to provide medical services and/or first aid? Yes / No / Unsure

The following standard requires the employer to ensure availability of medical personnel and prompt medical attention for serious injuries. It also provides for a person who has a valid certificate in first aid to be available if medical care is not "reasonably accessible".

<u>Reasonably accessible</u> (in near proximity) - <u>Interpreted</u> by OSHA as "While the standards do not prescribe a number of minutes, 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." Refer to 1926.16—<u>rules of construction</u> for more information on responsibilities regarding first aid facilities and medical services at the job site.

This standard provides requirements for first aid supplies and contents, emergency telephone numbers and transportation availability. It also requires quick drenching or flushing of the eyes and body when a person may be exposed to injurious corrosive materials.

Employees that are designated by their employer to provide first aid as a collateral job duty are covered under the general industry standard, 1910.1030—<u>bloodborne pathogens</u>. If you have employees that have first aid responsibilities, then you need to comply with the state-specific standard, 7F .0207—<u>toxic and hazardous substances</u>, that incorporates 1910.1030—<u>bloodborne pathogens</u> (excluding subparagraphs (e) HIV and HBV Research Laboratories and Production Facilities) into the Safety and Health Regulations for Construction (29 CFR 1926). It also revised the definition of occupational exposure under subsection (b) Definitions.

<u>Occupational exposure</u> - Means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of collateral first aid duties by an employee in the areas of construction, alteration, or repair, including painting and decorating.

1926.50—Medical services and first aid.

Do you need to provide for sanitation? Yes / No / Unsure

The following standard provides requirements for potable water, nonpotable water, toilets at construction jobsites, food handling, temporary sleeping quarters, washing facilities, showers, eating and drinking areas, vermin control (i.e., effective extermination program), and change rooms. Reference 1926.16—rules of construction for more information on these responsibilities at the jobsite.

<u>1926.51</u>—Sanitation.

Are employees exposed to occupational noise? Yes / No / Unsure

The following standard applies when employees are subjected to sound levels exceeding those listed in <u>Table D-2</u> - permissible noise exposures. This standard requires that feasible administrative or engineering controls be utilized to reduce noise exposures. If these controls fail to reduce sound levels, then personal protective equipment needs to be provided and used to reduce noise to the levels provided in the table. **Note:** The noise exposure should be considered without the use of personal protective equipment.

1926.52—Occupational noise exposure.

Do your employees have occupational exposure to ionizing radiation? Yes / No / Unsure

The following standard applies to employee exposure to ionizing radiation. It states that the pertinent provisions of the <u>Nuclear Regulatory Commission Standards for Protection Against Radiation (10 CFR Part 20)</u> relating to protection against occupational radiation exposure applies to ionizing radiation exposures and that any activity involving the use of radioactive materials or x-rays shall be performed by a competent person. It also references the general industry standard, 1910.1096—<u>ionizing radiation</u>, as the requirements in paragraph (c) - (r) are identical for construction work.

This standard provides the requirements pertaining to exposures of individuals in restricted areas, exposure to airborne radioactive material, precautionary procedures and personal monitoring, caution signs, labels, and signals, immediate evacuation warning signal, exceptions from posting requirements, exemptions for radioactive materials packaged for shipment, instruction of personnel (posting), storage of radioactive materials, waste disposal, notification if incidents, records, disclosure to former employee of individual employee's record, and Nuclear Regulatory Commission licensees - NRC contractors operating NRC plants and facilities - NRC Agreement State licensees or registrants.

<u>Radiation</u> - Includes alpha rays, beta rays, gamma rays, X-rays, neutrons, high-speed electrons, high-speed protons, and other atomic particles; but such term does not include sound or radio waves, or visible light, or infrared or ultraviolet light.

1926.53—Ionizing radiation (References general industry standard, 1910.1096—Ionizing radiation).

Do you have occupational non-ionizing radiation exposures? Yes / No / Unsure

The following standard applies to employee exposure to non-ionizing radiation. This standard provides requirements pertaining to qualified and trained employees, proof of qualification of laser equipment operator, eye protection, warning placards, lasers left unattended, guiding internal alignments, labels, exposures, and other safety procedures.

<u>Non-ionizing radiation</u> - A series of energy waves composed of oscillating electric and magnetic fields traveling at the speed of light. Non-ionizing radiation includes ultraviolet (UV), visible light, infrared (IR), microwave (MW), radio frequency (RF), and extremely low frequency (ELF). Non-ionizing radiation does not have enough energy to remove an electron from an atom or molecule.

The North Carolina state-specific standard, 7F .0203—occupational health and environmental controls, adds the following to paragraph (a) in 1926.54—non-ionizing radiation; "This standard applies to all direct or reflected laser equipment except unmodified Class 1 equipment maintained in accordance with the manufacturer's recommendations."

1926.54—Nonionizing radiation.

Do you have operations that generate gases, vapors, fumes, dusts and/or mists? Yes / No / Unsure

The following standard applies to employee exposures from inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in the "Threshold Limit Values (TLV) of Airborne Contaminants for 1970" of the American Conference of Governmental Industrial Hygienists (ACGIH).

This standard does not apply to employee exposure to airborne asbestos, tremolite, anthophyllite, and actinolite dust. The asbestos standard for general industry, 1910.1001—<u>asbestos</u> or construction, 1926.1101—<u>asbestos</u> are to be followed for airborne asbestos exposures in construction. It also does not apply to employee exposures to formaldehyde. The general industry standard, 1910.1048—<u>formaldehyde</u>, should be followed for exposures to formaldehyde in construction.

The standard requires feasible administrative or engineering controls to be utilized. If these controls are not feasible, protective equipment or other protective measures must be used to keep the exposure of employees to air contaminants within the limits prescribed in the appendix. It also references that any equipment and technical measures must be approved by a competent industrial hygienist or other technically qualified person and if respirators are used, they must comply with 1926.103—respiratory protection.

1926.55—Gases, vapors, fumes, dusts, and mists.

Do you need to provide illumination at the job site? Yes / No / Unsure

The following standard requires construction areas, ramps, runways, corridors, offices, shops, and storage areas to be lighted to not less than the minimum illumination intensities listed in <u>Table D-3</u> - minimum illumination intensities in foot-candles, while any work is in progress.

It also references the <u>American National Standard A11.1-1965</u>, <u>R1970</u>, <u>Practice for Industrial Lighting</u>, for recommended values of illumination for areas or operations not covered above.

1926.56—Illumination.

Do you need to provide ventilation at the job site? Yes / No / Unsure

The following standard applies whenever hazardous substances such as dusts, fumes, mists, vapors, or gases (Reference 1925.55—gases, vapors, fumes, dusts and mists) exist or are produced in the course of construction work.

<u>Paragraph (a) - (e)</u> provides general requirements for when ventilation is used as an engineering control method, the system must be installed and operated according to the standard's requirements. These paragraphs also provide general requirements pertaining to local exhaust ventilation, duration of operations and disposal of exhaust materials.

<u>Paragraph (f)</u> provides the requirements for abrasive blasting where operations involve an abrasive that is forcibly applied to a surface by pneumatic or hydraulic pressure, or by centrifugal force. This paragraph does not apply to steam blasting, or steam cleaning, or hydraulic cleaning methods where work is done without the aid of abrasives. This paragraph provides requirements pertaining to dust hazards, blast-cleaning enclosures, exhaust ventilation systems, personal protective equipment, air supply and air compressors (References general industry standard, 1910.134—<u>respiratory protection</u>), operational procedures and general safety.

<u>Abrasive blasting</u> - The forcible application of an abrasive to a surface by pneumatic pressure, hydraulic pressure, or centrifugal force.

<u>Abrasive</u> - A solid substance used in abrasive blasting operations.

<u>Paragraph (g)</u> provides the requirements for grinding, polishing and buffing operations. It applies to the use of exhaust hood enclosures and systems in removing dust, dirt, fumes, and gases generated through the grinding, polishing, or buffing of ferrous and nonferrous metals. This paragraph provides requirements pertaining to employee exposures (Reference 1926.55—gases, vapors, fumes, dusts and mists), hood and branch pipe requirements, exhaust systems, and hood and enclosure design.

<u>Polishing and buffing wheels</u> - All power-driven rotatable wheels composed all or in part of textile fabrics, wood, felt, leather, paper, and may be coated with abrasives on the periphery of the wheel for purposes of polishing, buffing, and light grinding.

<u>Paragraph (h)</u> applies to spray booths or spray rooms used to enclose or confine all spray finishing operations but does not apply to the spraying of the exteriors of buildings, fixed tanks, or similar structures, nor to small portable spraying apparatus not used repeatedly in the same location. (Reference 1926.66—<u>criteria for design and construction of spray booths</u>. It provides requirements

pertaining to location and application, design and construction of spray booths, design and construction of spray rooms, ventilation, velocity and air flow requirements, and make-up air.

<u>Spray-finishing operations</u> - Employment of methods wherein organic or inorganic materials are utilized in dispersed form for deposit on surfaces to be coated, treated, or cleaned. Such methods of deposit may involve either automatic, manual, or electrostatic deposition but do not include metal spraying or metallizing, dipping, flow coating, roller coating, tumbling, centrifuging, or spray washing and degreasing as conducted in self-contained washing and degreasing machines or systems.

<u>Spray booth</u> - A power-ventilated structure provided to enclose or accommodate a spraying operation to confine and limit the escape of spray, vapor, and residue, and to safely conduct or direct them to an exhaust system.

<u>Spray room</u> - A room in which spray-finishing operations not conducted in a spray booth are performed separately from other areas.

Paragraph (i) provides requirements pertaining to operations that involve the immersion of materials in liquids, or in the vapors of such liquids, for the purpose of cleaning or altering the surface or adding to or imparting a finish thereto or changing the character of the materials, and their subsequent removal from the liquid or vapor, draining, and drying. These operations include washing, electroplating, anodizing, pickling, quenching, dying, dipping, tanning, dressing, bleaching, degreasing, alkaline cleaning, stripping, rinsing, digesting, and other similar operation.

This paragraph references consensus standards and provides requirements pertaining to classification of open-surface tank operations, ventilation, control requirements, spray cleaning and degreasing, control means other than ventilation, system design, operation, personal protection, special precautions for cyanide, floors and platforms, cleaning and inspections, maintenance, and vapor degreasing tanks.

<u>Surface coating operations</u> - All operations involving the application of protective, decorative, adhesive, or strengthening coating or impregnation to one or more surfaces, or into the interstices of any object or material, by means of spraying, spreading, flowing, brushing, roll coating, pouring, cementing, or similar means; and any subsequent draining or drying operations excluding open-tank operations.

1926.57—Ventilation.

Do you have employees that may be exposed to any chemical under normal conditions or in foreseeable emergencies? Yes / No / Unsure

The following standard applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

This standard does not apply to:

• Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;

- Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with Environmental Protection Agency regulations.
- Tobacco or tobacco products;
- Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);
- Articles; Note: Defined as a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.
- Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;
- Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);
- Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;
- Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act and Federal Hazardous Substances Act, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;
- Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;
- Ionizing and nonionizing radiation; and
- Biological hazards.

This standard provides the requirements for a written hazard communication program, labels and other forms of warning, safety data sheets, information and training, trade secrets, hazard classification, chemical inventory, and non-routine tasks.

<u>1926.59</u>—Hazard communication (*References general industry standard*, <u>1910.1200</u>—Hazard communication).

Do your employees have occupational exposure to methylenedianiline? Yes / No / Unsure

The following standard applies to all construction work where there is exposure to MDA, including but not limited to the following:

- Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain MDA;
- *Installation or the finishing of surfaces with products containing MDA;*
- MDA spill/emergency cleanup at construction sites; and
- Transportation, disposal, storage, or containment of MDA or products containing MDA on the site or location at which construction activities are performed.

This standard does not apply to:

- The processing, use, and handling of products containing MDA where initial monitoring indicates that the product is not capable of releasing MDA in excess of the action level under the expected conditions of processing, use, and handling which will cause the greatest possible release; and where no dermal exposure to MDA can occur.
- The processing, use, and handling of products containing MDA where objective data are reasonably relied upon which demonstrate the product is not capable of releasing MDA under the expected conditions of processing, use, and handling which will cause the greatest possible release; and where no dermal exposure to MDA can occur.
- The storage, transportation, distribution or sale of MDA in intact containers sealed in such a manner as to contain the MDA dusts, vapors, or liquids, except for the provisions of 1910.1200— <u>hazard communication</u> and <u>paragraph (e)</u> emergency situations.
- To materials in any form which contain less than 0.1% MDA by weight or volume.
- *To finished articles containing MDA.*

Note: Where products containing MDA are exempted, the employer must maintain records of the initial monitoring results or objective data supporting that exemption and the basis for the employer's reliance on the data.

<u>4,4'Methylenedianiline or MDA</u> - Means the chemical; 4,4'-diaminodiphenylmethane, Chemical Abstract Service Registry number 101-77-9, in the form of a vapor, liquid, or solid. The definition also includes the salts of MDA.

This standard provides requirements pertaining to permissible exposure limits, communication among employers, emergency situations (References general industry standards, 1910.38—emergency action plans and 1910.39—fire prevention plans), hazard communication program (References general industry standard, 1910.1200—hazard communication), exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practices, written compliance plan), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment, hygiene facilities and practices (References general industry standard, 1910.141—sanitation), signs and labels, housekeeping, medical surveillance, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

Do you receive containers or packages with dot markings, placards, or labels? Yes / No / Unsure

The following standard applies to the department of transportation markings, placards, and labels for:

- Packages of hazardous material received by the employer;
- Freight containers;
- Rail freight cars;
- Motor vehicles;
- Transport vehicles.

This standard provides the requirements pertaining to maintaining the visibility of markings, placards and labels, and maintaining labels in accordance with general industry standard, 1910.1200—<u>hazard</u> communication.

<u>1926.61</u>—Retention of DOT markings, placards, and labels (*References general industry standard*, <u>1910.1201</u>—Retention of DOT markings, placards and labels).

Do you have occupational lead exposures? Yes / No / Unsure

The following standard applies to all construction work where an employee may be occupationally exposed to lead.

<u>Construction work</u> - Is work for construction, alteration and/or repair, including painting and decorating. *It includes but is not limited to the following:*

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- *Installation of products containing lead;*
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and
- *Maintenance operations associated with the construction activities described in this paragraph.*

This standard provides requirements pertaining to the permissible exposure limit, exposure assessments, methods of compliance (i.e., engineering controls, work practice controls, written compliance plan), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment (References general industry standard, 1910.133—reve and face protection), housekeeping, signs and labels, hygiene facilities and practices (References general industry standard, 1910.141—sanitation), hazard communication program (References general

industry standard, 1910.1200—<u>hazard communication</u>), medical surveillance, medical removal protection, information and training, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>Lead</u> - Means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

1926.62—Lead.

Do you have highly hazardous materials or a process involving highly hazardous materials? Yes / No / Unsure

The following standard applies to operations that has a hazardous chemical in the quantity listed in 1926.64—<u>appendix A</u>, or any process which involves a Category 1 flammable gas or a flammable liquid with a flashpoint below 100 °F on site in one location, in a quantity of 10,000 pounds or more.

Exception: Hydrocarbon fuels used solely for workplace consumption as a fuel (e.g., propane used for comfort heating, gasoline for vehicle refueling), if such fuels are not a part of a process containing another highly hazardous chemical covered by this standard and flammable liquids with a flashpoint below 100 °F stored in atmospheric tanks or transferred which are kept below their normal boiling point without benefit of chilling or refrigeration.

This standard does not apply to:

- Retail facilities;
- Oil or gas well drilling or servicing operations; or
- Normally unoccupied remote facilities.

This standard provides requirements for employee participation, process safety information, process hazard analysis, operating procedures, training, contractors, pre-startup safety review, mechanical integrity, hot work permits, management of change, incident investigations, emergency planning and response, compliance audits, trade secrets and definitions.

<u>Process</u> - Means any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling, or the on-site movement of such chemicals, or combination of these activities. For purposes of this definition, any group of vessels which are interconnected and separate vessels which are located such that a highly hazardous chemical could be involved in a potential release shall be considered a single process.

<u>Highly hazardous chemical</u> - Means a substance possessing toxic, reactive, flammable, or explosive properties.

<u>Normally unoccupied remote facility</u> - Means a facility which is operated, maintained, or serviced by employees who visit the facility only periodically to check its operation and to perform necessary operating or maintenance tasks. No employees are permanently stationed at the facility. Facilities meeting this definition are not contiguous with, and must be geographically remote from all other buildings, processes or persons.

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

<u>1926.64</u>—Process safety management of highly hazardous chemicals (*References general industry standard*, 1910.119—Process safety management of highly hazardous chemicals).

Are employees engaged in clean-up operations of hazardous materials? Yes / No / Unsure

The following standard applies to employers that are involved in clean-up operations of hazardous substances, the treatment, storage and disposal of hazardous waste, and/or emergency response operations involving hazardous substances. <u>Paragraph (a)</u> provides the scope, application, and definitions.

Clean-up operations are provided in <u>paragraphs (b) - (o)</u>. It provides the requirements pertaining to a written safety and health program, site characterization and analysis, site control, training, medical surveillance, engineering controls, work practices, personal protective equipment, monitoring, informational programs, handling drums and containers, decontamination, emergency response (Reference 1926.35—<u>employee emergency action plans</u> and 1925.159—<u>employee alarm systems</u>), illumination, sanitation of temporary workplaces, and new technology programs.

<u>Clean-up operation</u> - Means an operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

1926.65—Hazardous waste operations and emergency response.

Are employees involved in the treatment, storage, and disposal (TSD) of hazardous materials? Yes / No / Unsure

The following standard applies to employers that are involved in clean-up operations of hazardous substances, the treatment, storage, and disposal of hazardous waste, and/or emergency response operations involving hazardous substances. <u>Paragraph (a)</u> provides the scope, application and definitions.

Treatment, storage, and disposal requirements are covered in <u>paragraph (p)</u>. This standard provides requirements pertaining to a safety and health program, hazard communication program (Reference 1926.59—<u>hazard communication</u>), medical surveillance program, decontamination program, new technology program, material handling program, training program, and emergency response program (Reference 1926.35—<u>employee emergency action plans</u>).

1926.65—Hazardous waste operations and emergency response.

Are employees responding to emergencies involving hazardous materials? Yes / No / Unsure

The following standard applies to employers that are involved in clean-up operations of hazardous substances, the treatment, storage, and disposal of hazardous waste, and/or emergency response operations involving hazardous substances. <u>Paragraph (a)</u> provides the scope, application, and definitions.

Emergency response is covered in <u>paragraph (q)</u>. It provides the requirements for having an emergency response plan (Reference 1926.35—<u>employee emergency action plans</u>), emergency procedures, skilled support personnel, specialist employees, training, trainers, refresher training, medical surveillance and consultation, chemical protective clothing, and post-emergency response operations.

Emergency response or responding to emergencies - A response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

<u>1926.65</u>—Hazardous waste operations and emergency response.

Do you have spray booths? Yes / No / Unsure

The following standard provides requirements for the design and construction of spray booths, electrical and other sources of ignition, ventilation, fixed electrostatic apparatus, electrostatic hand spraying equipment, and drying, curing and fusion apparatuses.

<u>Spraying area</u> - Any area in which dangerous quantities of flammable vapors or mists, or combustible residues, dusts, or deposits are present due to the operation of spraying processes.

<u>Spray booth</u> - A power-ventilated structure provided to enclose or accommodate a spraying operation to confine and limit the escape of spray, vapor, and residue, and to safely conduct or direct them to an exhaust system.

Also reference <u>paragraph (h)</u> of 1926.57—<u>ventilation</u> for more requirements pertaining to spray finishing operations and paragraph (b) of 1926.152—flammable liquids.

<u>1926.66</u>—Criteria for design and construction for spray booths.

SUBPART D APPENDICES:

Medical services and first aid:

1926.50, appendix A provides guidance on first aid kits.

Gases, vapors, fumes, dusts, and mists:

1926.55, <u>appendix A</u> provides the "1970 American Conference of Governmental Industrial Hygienists' Threshold Limit Values of Airborne Contaminants".

<u>Hazard communication</u> (1926.59 - References general industry standard, 1910.1200—<u>Hazard communication</u>):

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

1910.1200, appendix A provides the health hazard criteria.

1910.1200, appendix B provides the physical criteria.

1910.1200, appendix C provides the allocation of label elements.

1910.1200, appendix D provides the safety data sheets.

1910.1200, appendix E provides definition of "trade secret".

1910.1200, <u>appendix F</u> pertains to the guidance for hazard classifications re: carcinogenicity.

<u>Methylenedianiline</u> (1926.60 - References general industry standard, 1910.1050—<u>Methylenedianiline</u>):

1910.1050, appendix A provides substance data sheet.

1910.1050, <u>appendix B</u> provides the substance technical guidelines.

1910.1050, appendix C provides the medical surveillance guidelines.

1910.1050, <u>appendix D</u> provides the sampling and analytical methods for MDA monitoring and measurement procedures.

Lead:

1926.62, appendix A provides the substance data sheet for occupational exposure.

1926.62, appendix B provides the employee standard summary.

1926.62, <u>appendix C</u> provides the medical surveillance guidelines.

<u>Process safety management (1926.64</u> - References general industry standard, 1910.119—<u>Process safety management)</u>:

1910.119, appendix B provides a block flow diagram and simplified process flow diagram.

1910.119, <u>appendix C</u> provides compliance guidelines and recommendations for process safety management.

HAZWOPER:

1926.65, appendix A provides personal protective equipment test methods.

1926.65, <u>appendix B</u> provides general description and discussion of the levels of protection and protective gear.

1926.65, appendix C provides compliance guidelines.

1926.65, <u>appendix E</u> provides training curriculum guidelines.

SUBPART D REFERENCES:

Abrasive blasting

Acids and bases

Asbestos

Bloodborne pathogens

Emergency action plans

Employee exposure and medical records

Eyewash stations and emergency showers

Fire prevention plans

Fire protection and prevention

Flammable liquids

Hazard communication

HAZWOPER

Hexavalent chromium

Hierarchy of controls

Illumination

Lead

Medical services and first aid

Noise

Organic solvents

Personal protective equipment

Process safety management

Radiation, ionizing and non-ionizing

Respiratory protection

Sanitation

Signs, markings and tags

Silica

Welding and cutting

Subpart E—Personal Protective and Life Saving Equipment

Does "Subpart E—Personal Protective and Life Saving Equipment" apply to you?

This subpart contains the standards for personal protective equipment including foot protection; electrical protective equipment; head protection; hearing protection; eye and face protection; respiratory protection; safety belts, lifelines and lanyards; and safety nets. It also includes standards for working over or near water. If this subpart applies to your workplace, then most of the standards within this subpart will apply.

Note: Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees exposed to hazards that may require PPE? Yes / No / Unsure

The following standard provides general criteria for personal protective equipment (PPE) including design, construction, and payment for PPE. It also includes requirements pertaining to the adequacy, proper maintenance, and sanitation of PPE owned by the employee.

Many OSHA standards require employers to provide personal protective equipment, when it is necessary to protect employees from job-related injuries, illnesses, and fatalities. With few exceptions, OSHA requires employers to pay for personal protective equipment when it is used to comply with OSHA standards. These typically include hard hats, gloves, goggles, safety shoes, safety glasses, welding helmets and goggles, face shields, chemical protective equipment and fall protection equipment.

1926.95—Criteria for personal protective equipment.

Are your employees exposed to foot hazards? Yes / No / Unsure

The following standard states "Safety-toe footwear for employees shall meet the requirements and specifications in American National Standard for Men's Safety-Toe Footwear, Z41.1-1967."

<u>1926.96</u>—Occupational foot protection.

Do your employees work on energized circuits and/or equipment? Yes / No / Unsure

The following standard provides requirements for rubber insulating blankets, rubber insulating matting, rubber insulating covers, rubber insulating line hose, rubber insulating gloves, and rubber insulating sleeves. It covers requirements pertaining to the manufacture and marking of rubber insulating equipment, design requirements for other types of electrical protective equipment, and in-service care and use of electrical protective equipment.

<u>1926.97</u>—Electrical protective equipment

Do your employees work in areas where there is a possible danger of a head injury? Yes / No / Unsure

The following standard provides that head protection must meet the specifications contained in one of the following ANSI standards for head protection:

- American National Standards Institute (ANSI) Z89.1-2009, "American National Standard for Industrial Head Protection," incorporated by reference in 1926.6;
- American National Standards Institute (ANSI) Z89.1-2003, "American National Standard for Industrial Head Protection," incorporated by reference in 1926.6; or
- American National Standards Institute (ANSI) Z89.1-1997, "American National Standard for Personnel Protection-Protective Headwear for Industrial Workers-Requirements," incorporated by reference in 1926.6.

The North Carolina state-specific standard on 7F.0202—general safety and health provisions, amends "Personal protective equipment, 1926.28(a) to read as follows: The employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where this part indicates the need for using such equipment to reduce the hazards to the employees.

<u>1926.100</u>—Head protection.

Are employees exposed to occupational noise? Yes / No / Unsure

The following standard applies when employees are subjected to sound levels exceeding those listed in <u>Table D-2</u> - permissible noise exposures of 1926.52—<u>occupational noise exposure</u>. The hearing protection standard also provides that ear protective devices must be fitted or determined by a competent person. Also reference 1926.52—<u>occupational noise exposure</u>.

<u>Competent person</u> - Means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

<u>1926.101</u>—Hearing protection.

Are employees exposed to eye or face hazards? Yes / No / Unsure

The following standard applies to employees 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. It includes general requirements (i.e., prescription eyewear, side protectors, disinfected, cleanable, durable), criteria for protective eye and face protection (references consensus standards), and protection against radiant energy.

<u>1926.102</u>—Eye and face protection.

Are employees exposed to airborne contaminants, oxygen deficient atmospheres or other immediately dangerous to life and health (IDLH) atmospheres? Yes / No / Unsure

The following standard applies to employees that are exposed to airborne contaminants (e.g., fumes, mists, smokes, sprays, gases), oxygen deficient atmospheres or other IDLH atmospheres. This standard provides the requirements for using respirators when engineering control measures (e.g., ventilation, enclosures) are not effective in controlling air contaminants. This includes having a written respirator program, and providing for respirator selection, medical evaluations, fit testing, respirator use, maintenance and care, breathing air quality and use, identification of filters, cartridges and canisters, training and information, program evaluation, and recordkeeping (References the general industry standard, 1910.1020—access to employee exposure and medical records).

Note: Voluntary users of respirators - paragraph (c)(2)(i); An employer may provide respirators at the request of employees or permit employees to use their own respirators, if the employer determines that respirator use will not in itself create a hazard. If the employer determines that voluntary respirator use is permissible, they shall provide the information contained in general industry standard, 1910.134—appendix D to the employee. 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).

<u>Immediately dangerous to life or health (IDLH)</u> - Means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Oxygen deficient atmosphere - Means an atmosphere with an oxygen content below 19.5% by volume.

<u>Air-purifying respirator</u> - Means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

<u>Atmosphere-supplying respirator</u> - Means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

<u>Filtering facepiece (dust mask)</u> - Means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

<u>1926.103</u>—Respiratory protection (*References general industry standard*, <u>1910.134</u>—*Respiratory protection*).

Are your employees exposed to fall hazards? Yes / No / Unsure

The following standard provides requirements pertaining to lifelines, safety belts and lanyards. It provides requirements pertaining to securing the lifelines, breaking strength of rope, and specifications for hardware.

<u>Lanyard</u> - A rope, suitable for supporting one person. One end is fastened to a safety belt or harness and the other end is secured to a substantial object or a safety line.

<u>Lifeline</u> - A rope, suitable for supporting one person, to which a lanyard or safety belt (or harness) is attached.

Also reference the North Carolina state-specific standard 7F .0204—personal protective and life saving equipment which added paragraph (g) to safety belts, lifelines, and lanyards - "Snaphooks shall be a locking type designed and used to prevent disengagement of the snap hook keeper by the connected member. Locking type snaphooks have self-closing, self-locking keepers which remain closed and locked until unlocked and pressed open for connection or disconnection.

<u>1926.104</u>—Safety belts, lifelines, and lanyards.

Are employees working above 25 feet? Yes / No / Unsure

The following standard applies when employees work 25 feet above the ground or water surface, or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, and when safety belts are impractical. This standard provides requirements for placement, clearance, netting mesh size, and hardware criteria.

1926.105—Safety nets.

Do employees work on or near water? Yes / No / Unsure

The following standard provides requirements for life jackets and buoyant work vests, inspection of the personal protective equipment, and availability of lifesaving skiffs for employees that work over or near water where the danger of drowning exists.

1926.106—Working over or near water.

Do employees use personal protective equipment? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1926.107—Definitions applicable to this subpart.

SUBPART E APPENDICES:

<u>Respiratory protection</u> (1926.103 - References general industry standard, 1910.134—<u>Respiratory protection</u>):

1910.134, appendix A provides fit testing procedures.

1910.134, appendix B-1 provides user seal check procedures.

1910.134, appendix B-2 provides respirator cleaning procedures.

1910.134, appendix C provides the medical questionnaire.

SUBPART E REFERENCES:

Electrical safety

Employee exposure and medical records

Fall protection

Flammable liquids

Hierarchy of controls

Highway work zone safety

Noise

Organic solvents

Personal protective equipment

Respiratory protection

Subpart F—Fire Protection and Prevention

Does "Subpart F—Fire Protection and Prevention" apply to you?

This subpart contains the standards for fire protection and prevention, flammable liquids, liquid petroleum gas, fixed extinguishing systems, fire detection systems, and temporary heating devices.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you need a fire protection program on a construction site or during demolition work? Yes / No / Unsure

The following standard requires that the employer have a fire protection program during all phases of construction and demolition work and providing for the firefighting equipment. It also provides requirements for portable and fixed firefighting equipment, a water supply, fire alarm devices, and fire cutoffs. Also reference 1926.151—<u>fire prevention</u> which provides the requirements pertaining to ignition hazards, temporary buildings, open yard storage, no smoking signs, fire extinguishers. and indoor storage.

<u>1926.150</u>—Fire protection.

Do you need fire prevention on a construction site? Yes / No / Unsure

The following standard provides the requirements pertaining to ignition hazards, temporary buildings, open yard storage, no smoking signs, fire extinguishers. and indoor storage. Also reference 1926.150—fire protection.

1926.151—Fire prevention.

Do employees handle, store and/or use flammable liquids? Yes / No / Unsure

The following standard provides requirement for handling, storing and use of flammable liquids. <u>Paragraph (a)</u> provides general requirements for using only approved containers and portable tanks for storage and handling of flammable liquids including not storing them in areas used for exits, stairways, or areas normally used for the safe passage of people. Reference each of the following paragraphs for requirements pertaining flammable liquids.

<u>Paragraph (b)</u> provides requirements pertaining to container quantity, specifications for storage cabinets, labeling of cabinets, extinguishing systems, and wiring.

<u>Paragraph (c)</u> provides requirements for flammable liquids that are stored in outside buildings. It includes requirements pertaining to container quantity, separation of containers, outdoor portable tank storage, weed control, and emergency venting.

<u>Paragraph (d)</u> covers fire control for flammable liquid storage as it provides requirements pertaining to fire extinguishers, and sprinklers.

<u>Paragraph (e)</u> provides the requirements pertaining to transferring liquids from tanks and containers.

<u>Paragraph (f)</u> provides the requirements pertaining to handling liquids at point of final use (i.e., containers closed when not in use, spillage, ignition sources).

<u>Paragraph (g)</u> provides requirements pertaining to storage in containers, and tanks underground and aboveground. It also provides requirements for hoses, switches, heating equipment, smoking signs, fire extinguishers, and not abandoning tanks.

<u>Paragraph (h) - (k)</u> provides requirements for handling, storing, and/or using flammable liquids with a flashpoint at or below 199.4 °F (93 °C) that is not for bulk transportation or fuel oil tanks and containers connected with oil burning equipment. It does not apply to:

- Bulk transportation of flammable liquids; and
- Storage, handling, and use of fuel oil tanks and containers connected with oil burning equipment.

<u>Paragraph (i)</u> provides requirements pertaining to tank storage including design and construction for atmospheric tanks, low pressure tanks, and pressure vessels; installation of outside aboveground tanks; installation of underground tanks; installation of tanks inside of buildings; supports, foundations, and anchorage for all tank location; sources of ignition; and testing.

<u>Paragraph (j)</u> provides requirements pertaining to piping, valves and fittings including design, materials, pipe joints, supports, protection against corrosion, valves, and testing.

<u>Paragraph (k)</u> provides the requirements pertaining to marine service stations and includes requirements for dispensing, tanks and pumps, and piping.

<u>Marine service station</u> - That portion of a property where flammable liquids used as fuels are stored and dispensed from fixed equipment on shore, piers, wharves, or floating docks into the fuel tanks or self-propelled craft and shall include all facilities used in connection therewith.

<u>Flammable liquid</u> - Any liquid having a vapor pressure not exceeding 40 pounds per square inch (absolute) at $100 \, ^{\circ}\text{F}$ (37.8 $^{\circ}\text{C}$) and having a flashpoint at or below 199.4 $^{\circ}\text{F}$ (93 $^{\circ}\text{C}$). Flammable liquids are divided into four categories as follows:

- Category 1 shall include liquids having flashpoints below 73.4 °F (23 °C) and having a boiling point at or below 95 °F (35 °C).
- Category 2 shall include liquids having flashpoints below 73.4 °F (23 °C) and having a boiling point above 95 °F (35 °C).
- Category 3 shall include liquids having flashpoints at or above 73.4 °F (23 °C) and at or below 140 °F (60 °C).

• Category 4 shall include liquids having flashpoints above 140 °F (60 °C) and at or below 199.4 °F (93 °C).

1926.152—Flammable liquids.

Do employees use or handle liquefied petroleum gas? Yes / No / Unsure

The following standard provides requirements pertaining to approval of equipment and systems, container valves and container accessories, safety devices, dispensing, requirements for appliances, containers and regulating equipment installed outside of buildings, containers and equipment used inside of buildings or structures, multiple container systems, Storage of LPG containers, storage outside of buildings, fire protection, damage from vehicles, and markings.

<u>Paragraph (m)</u> provides specific requirements for systems that utilize containers other than DOT containers. It applies specifically to systems utilizing storage containers other than those constructed in accordance with DOT specifications. It provides design pressure and classification of storage containers.

<u>Liquefied petroleum gases, LPG and LP gas</u> - Means and includes any material which is composed predominantly of any of the following hydrocarbons, or mixtures of them, such as propane, propylene, butane (normal butane or iso-butane), and butylene.

1926.153—Liquefied petroleum gas (LP-Gas).

Do employees use temporary heating devices? Yes / No / Unsure

The following standard provides requirements for ventilation, heaters used in confined spaces, clearance and mounting, stability, solid fuel salamanders, and oil-fired heaters.

1926.154—Temporary heating devices.

SUBPART F REFERENCES:

Confined spaces

Demolition

Employee alarm system

Fire brigades

Fire prevention plans

Flammable liquids

Portable fire extinguishers

Subpart G—Signs, Signals, and Barricades

Does "Subpart G—Signs, Signals, and Barricades" apply to you?

This subpart contains the standards for signs, tags, signaling, and barricades.

Note: References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you need accident prevention signs and tags? Yes / No / Unsure

The following standard includes the requirements for danger signs, caution signs, exit signs, directional signs, traffic signs, and accident prevention tags. Accident prevention tags are to be used as a temporary means of warning employees of an existing hazard, such as defective tools or equipment. It also references consensus standards 1926.6—incorporated by reference.

1926.200—Accident prevention signs and tags.

Do you have flaggers or use cranes and hoists? Yes / No / Unsure

The following standard provides requirements for flaggers and using crane and hoist signals. It also references ANSI standards and the Manual on Uniform Traffic Control Devices (1988 Edition, Revision 3, and the Millennium Edition) which are 1926.6—incorporated by reference.

<u>1926.201</u>—Signaling.

SUBPART G REFERENCES:

Highway work zone safety

Hoists

Personal protective equipment

Signs, markings and tags

Subpart H—Materials Handling, Storage, Use, and Disposal

Does "Subpart H—Materials Handling, Storage, Use, and Disposal" apply to you?

This subpart contains the standards for handling material (rigging), storage, use and disposal of waste material.

Note: References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you store materials? Yes / No / Unsure

The following standard provides general requirements (i.e., storage of materials in tiers, posting safe load limits on floors, keeping aisles and passageways clear), material storage, housekeeping and use of dockboards.

<u>1926.250</u>—General requirements for storage.

Do your employees use rigging equipment? Yes / No / Unsure

The following standard applies to slings used in conjunction with other material handling equipment for the movement of material by hoisting. The types of slings covered by the standard include those made from alloy steel chain, wire rope, metal mesh, natural or synthetic fiber rope (conventional three strand construction), and synthetic web (nylon, polyester, and polypropylene).

1926.251—Rigging equipment for material handling.

Do you dispose of waste materials? Yes / No / Unsure

The following standard includes requirements for enclosed chutes if materials are dropped more than 20 feet, use of barricades and signs when dropped through holes in floor, and using fire resistant covered containers for solvent waste, oily rags, and flammable liquids. It also requires that the disposal of waste or debris must comply with local fire regulations.

<u>Enclosed chute</u> - A slide, closed in on all sides, through which material is moved from a high place to a lower one.

1926.252—Disposal of waste materials.

SUBPART H REFERENCES:

Materials handling and storage

<u>Hoists</u>

Slings

Competent person

Subpart I—Tools - Hand and Power

Does "Subpart I—Tools - Hand and Power" apply to you?

This subpart contains the standards for hand and power tools.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do employees use hand and power tools? Yes / No / Unsure

The following standard provides requirements for the condition of tools, guarding, point of operation guarding, exposure of blades, anchoring fixed machinery, guarding of abrasive wheel machinery, bench and floor stands, cylindrical grinders, personal protective equipment, and on-off switches. It also states that personal protective equipment must meet the requirements of subpart E—personal protective and life saving equipment.

<u>Types of guarding</u> - 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 include barrier guards, two-hand tripping devices, and electronic safety devices.

<u>Point of operation</u> - The area on a machine where work is actually performed upon the material being processed.

1926.300—General requirements.

Do employees use hand tools? Yes / No / Unsure

The following standard includes requirements for not allowing the use of:

- Unsafe hand tools
- Wrenches with sprung jaws
- *Impact tools with mushroomed heads*
- Cracked tool handles
- Splintered tool handles

1926.301—Hand tools.

Do employees use power-operated hand tools? Yes / No / Unsure

The following standard provides additional requirements related to electric power-operated tools (Reference subpart K—<u>electrical</u>), pneumatic power tools (i.e., abrasive blast cleaning nozzles), fuel powered tools (Reference subpart F—<u>fire protection and prevention</u>), hydraulic power tools, powder-actuated tools (Reference subpart E—<u>personal protective and life saving equipment</u>).

<u>1926.302</u>—Power-operated hand tools.

Do employees use abrasive wheels and tools? Yes / No / Unsure

The following standard provides the requirements regarding power, guarding, use of abrasive wheels (i.e., inspections, ring tests), work rests, and complying with American National Standards Institute (ANSI) standards.

1926.303—Abrasive wheels and tools.

Do employees use woodworking tools? Yes / No / Unsure

The following standard provides the requirements for disconnect switches, operating speed, self-feeds, guarding, personal protective equipment, and complying with ANSI standards. It also provides specific requirements for radial saws, hand-fed crossed table saws, and hand-fed ripsaws. It also states that personal protective equipment must meet the requirements of subpart E—personal protective and life saving equipment.

<u>1926.304</u>—Woodworking tools.

Do employees use lever and ratchet, screw, or hydraulic jacks? Yes / No / Unsure

The following standard provides general requirements for the use of jacks including legibly marked with rated capacity and having a positive stop. It also includes requirements for blocking, operation and maintenance (i.e., tagging, lubrication, repair, inspections).

1926.305—Jacks - lever and ratchet, screw and hydraulic.

Do employees use air receivers or other similar equipment? Yes / No / Unsure

The following standard applies to compressed air receivers, and other equipment used in providing and utilizing compressed air for performing operations such as cleaning, drilling, hoisting, and chipping. This standard does not deal with the special problems created by using compressed air to convey materials nor the problems created when men work in compressed air as in tunnels and caissons. It also does not apply to compressed air machinery and equipment used on transportation vehicles such as steam railroad cars, electric railway cars, and automotive equipment.

This standard provides the requirements for installation and equipment requirements including drains and traps, and gages and valves (i.e., safety appliances, testing). It also references consensus standards.

1926.306—Air Receivers.

Do employees work on or around mechanical power-transmission apparatus? Yes / No / Unsure

The following standard applies to flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.

<u>Mechanical power transmission apparatus</u> - Includes all components of the mechanical system which transmit energy to the part of the machine performing the work. These components include flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.

This standard provides the requirements pertaining to the principal features for power transmission safeguards and all types and shapes of power-transmission belts, except the following when operating at two hundred and fifty feet per minute or less:

- *Flat belts 1 inch or less in width;*
- Flat belts 2 inches or less in width which are free from metal lacings or fasteners;
- Round belts 1/2 inch or less in diameter; and
- Single strand V-belts, the width of which is thirteen thirty-seconds (13/32) inches or less.

It provides requirements for:

- Prime-mover guards (i.e., flywheels, cranks, connecting rods, tail rods, extension piston rods);
- Shafting (i.e., guarding, basement locations, ANSI requirements);
- Pulleys (i.e., guarding, location of pulleys, broken pulleys, pulley speeds);
- Belt, rope and chain drives (i.e., horizontal belts and ropes, overhead horizontal belts, vertical and inclined belts, cone-pulley belts, belt tighteners);
- Gears, sprockets and chains (i.e., openings for oiling, enclosures, guarding);
- Friction drives;
- *Keys, setscrews and other projections; collars and couplings;*
- Bearings and facilities for oiling;
- *Guarding of clutches, cutoff couplings, and clutch pulleys (i.e., guards, engine rooms);*
- Belt shifters, clutches, shippers, poles, perches, and fasteners;
- Standard guards general requirements (i.e., materials, burrs, methods of manufacturer);
- Approved materials (i.e., dimensions, wood guards, horizontal overhead belts, reinforcement, guardrails, toeboards);
- Care of equipment (i.e., shafting, bearings, hangers, pulleys, care of belts, inspections, lubrication).

1926.307—Mechanical power-transmission apparatus.

SUBPART I REFERENCES:

Abrasive wheels

Amputations

Hand and portable powered tools

Machine guarding

Mechanical power press

Personal protective equipment

Subpart J—Welding and Cutting

Does "Subpart J—Welding and Cutting" apply to you?

This subpart contains the standards for gas welding and cutting, arc welding and cutting, fire prevention, ventilation, and protection in welding, cutting and heating, and welding, cutting and heating in way of preservative coatings.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees doing gas welding or cutting? Yes / No / Unsure

The following standard provides requirements for transporting, moving and storing gas cylinders (i.e., separation, kept upright, secured), placement of cylinders, treatment of cylinders (i.e., rolling, support, damaged), use of fuel gas (i.e., instruction), fuel gas and oxygen manifolds (i.e., name, ventilation, not located in confined spaces), hose (i.e., distinguishable, defective, kept clear), torches, and regulators and gauges. It also references the ANSI standard Z49.1-1967.

Also reference 1926.352—<u>fire prevention</u> which provides requirements for fire prevention precautions when conducting welding, cutting or heating operations. It includes requirements for fire extinguishing equipment, enclosed spaces, and other precautions.

Welding, cutting, and heating, not involving confined spaces, metals of toxic significance, or inert-gas metal-arc welding, may normally be done without mechanical ventilation or respiratory protective equipment, but where, because of unusual physical or atmospheric conditions, an unsafe accumulation of contaminants exists, suitable mechanical ventilation or respiratory protective equipment must be provided. Reference 1926.353—ventilation and protection in welding, cutting, and heating for more information pertaining to these requirements.

1926.350—Gas welding and cutting.

Are employees doing arc welding or cutting? Yes / No / Unsure

The following standard provides the requirements for manual electrode holders, welding cables and connectors, ground returns and machine grounding, operating instructions, and shielding.

Also reference 1926.352—<u>fire prevention</u> which provides requirements for fire prevention precautions when conducting welding, cutting or heating operations. It includes requirements pertaining to fire extinguishing equipment, enclosed spaces, and other precautions.

Welding, cutting, and heating, not involving confined spaces, metals of toxic significance, or inert-gas metal-arc welding, may normally be done without mechanical ventilation or respiratory protective

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equipment, but where, because of unusual physical or atmospheric conditions, an unsafe accumulation of contaminants exists, suitable mechanical ventilation or respiratory protective equipment must be provided. Reference 1926.353—<u>ventilation and protection in welding, cutting, and heating</u> for more information pertaining to these requirements.

1926.351—Arc welding and cutting.

Is fire prevention required during welding, cutting and heating operations? Yes / No / Unsure

The following standard provides requirements for fire prevention precautions when conducting welding, cutting or heating operations. It includes requirements pertaining to fire extinguishing equipment, enclosed spaces, and other precautions.

1926.352—Fire prevention.

Should mechanical ventilation or local exhaust ventilation be used or is it being used? Yes / No / Unsure

The following standard provides the requirements for mechanical and local exhaust ventilation including when conducted in confined spaces, using toxic metals, and when doing inert-gas metal-arc welding. Reference each of the following paragraphs for requirements pertaining to the use of mechanical ventilation and local exhaust ventilation along with other protection requirements for welding, cutting, and heating operations:

<u>Paragraph (a)</u> provides the general requirements for mechanical and local exhaust ventilation used for welding, cutting and heating operations such as safe exposure limits (Reference subpart D— <u>occupational health and environmental controls</u>) and providing clean and respirable air.

<u>Paragraph (b)</u> provides specific requirements pertaining to welding, cutting and heating in confined spaces. It provides requirements for using general mechanical or local exhaust ventilation, providing respirators that meet the requirements of subpart E—<u>personal protective and life saving equipment</u>, maintaining communications after entry into space, using lifelines for manholes or other small openings, and having rescue procedures.

<u>Paragraph (c)</u> provides the requirements for when metals of toxic significance are used in confined spaces such as zinc-bearing base or filler metals, metals coated with zinc-bearing materials, lead base metals, cadmium-bearing filler materials, cadmium-bearing or cadmium-coated base metals, chromium-bearing metals or metals coated with chromium-bearing materials, metals coated with mercury-bearing metals, and beryllium-containing base or filler metals. It includes using general mechanical or local exhaust ventilation, or providing employees with respirators that meet the requirements of subpart E—personal protective and life saving equipment.

<u>Paragraph (d)</u> provides specific requirements pertaining to inert-gas metal-arc welding including the safe use of chlorinated solvents, the use of personal protective equipment (eye, face and hand protection) that meets the requirements of subpart E—<u>personal protective and life saving equipment</u>, and using general mechanical or local exhaust ventilation when work is performed on stainless steel.

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<u>Paragraph (e)</u> provides additional general welding, cutting and heating requirements. This paragraph states that welding, cutting, and heating, not involving confined spaces, metals of toxic significance, or inert-gas metal-arc welding, may normally be done without mechanical ventilation or respiratory protective equipment, but where, because of unusual physical or atmospheric conditions, an unsafe accumulation of contaminants exists, suitable mechanical ventilation or respiratory protective equipment must be provided. It also requires that suitable eye protective equipment be provided to employees in accordance with subpart E—<u>personal protective and life saving equipment</u>.

1926.353—Ventilation and protection in welding, cutting, and heating.

Do employees conduct welding, cutting, or heating on any surface covered by a preservative coating? Yes / No / Unsure

The following standard provides the requirements pertaining to tests made by competent person, precautionary measures (i.e., flammability), protection against toxic preservative coatings (i.e., confined spaces) and references 1926.103—respiratory protection.

<u>Competent person</u> - Defined as who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1926.354—Welding, cutting and heating in way of preservative coatings.

SUBPART J REFERENCES:

Competent person

Confined spaces

Flammable liquids

Personal protective equipment

Portable fire extinguishers

Respiratory protection

Welding and cutting

Subpart K—Electrical

Does "Subpart K—Electrical" apply to you?

This subpart contains the standards for wiring design and protection, wiring methods and components, specific purpose equipment, hazardous locations, special systems, lockout/tagout, maintenance, battery locations and charging, and environmental deterioration of equipment.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you have electrical installations and/or utilization equipment and/or do employees work on or near energized parts? Yes / No / Unsure

The following standard provides an overview of the subpart. It states that 1926.402 - 1926.408 cover installation safety requirements for electrical equipment and installations used to provide electric power and light at the jobsite; safety-related work practices are contained in 1926.416 - 1926.417; safety-related maintenance and environmental considerations are contained in 1926.431 - 1926.432; and 1926.441 covers batteries and battery charging.

1926.400—Introduction.

Do employees work on electrical equipment or installations used to provide electric power and light at the jobsite? Yes / No / Unsure

The following standard provides the applicability of each section within the subpart. Standards 1926.402 through 1926.408 cover installation safety requirements for electrical equipment and installations used to provide electric power and light at the jobsite. These sections apply to installations, both temporary and permanent, used on the jobsite; but they do not apply to existing permanent installations that were in place before the construction activity commenced.

Standards 1926.402 through 1926.408 do not cover installations used for the generation, transmission, and distribution of electric energy, including related communication, metering, control, and transformation installations. However, these regulations do cover portable and vehicle-mounted generators used to provide power for equipment used at the jobsite. Reference subpart V—power distribution and transmission lines for construction work.

1926.402—Applicability.

Do employees work on electrical equipment or installations used to provide electric power and light at the jobsite? Yes / No / Unsure

The following standards provide the requirements for examination, installation and use of equipment, interrupting rating, mounting and cooling of equipment, slices, arcing parts, marking, and identification of disconnecting means and circuits. It includes requirements for guarding of live parts, headroom, working space and clearances around equipment operating at 600 volts or less. It also provides requirements for conductors and equipment used on circuits exceeding 600 volts to include workspace around equipment, working space, exposed live parts, lighting, and entrance and access to workspace.

1926.403—General requirements.

Do employees work on electrical equipment or installations used to provide electric power and light at the jobsite? Yes / No / Unsure

The following standard provides for the use and identification of grounded and grounding conductors; branch circuits (i.e., ground-fault protection, outlet devices); outside conductors and lamps (i.e., 600 volts, nominal or less, location); services (i.e., disconnecting means, services over 600 volts); overcurrent protection (i.e., 600 volts, nominal or less, over 600 volts, nominal); and grounding (i.e., systems to be grounded, separately derived systems, portable and vehicle-mounted generators, conductors to be grounded, grounding connections, grounding path, supports and equipment to be grounded, methods of grounding, bonding).

<u>1926.404</u>—Wiring design and protection.

Do employees work on electrical equipment or installations used to provide electric power and light at the jobsite? Yes / No / Unsure

The following standard provides the requirements on wiring methods (i.e., general requirements, temporary wiring); cabinets, boxes and fittings; knife switches; switchboards and panelboards; enclosures for damp and wet locations; cabinets, fittings and boxes; conductors for general wiring; flexible cords and cables (i.e., use, attachment plugs, splices, identification, strain relief, marking, passing through holes); fixture wires; portable cables over 600 volts; and equipment for general use (i.e., lighting fixtures, portable lamps, lamp holders, appliances, protection of live parts, transformers, capacitors).

<u>1926.405</u>—Wiring methods, components, and equipment for general use.

Do you have specific purpose equipment (i.e., cranes, hoists, elevators, electric welders, x-ray equipment)? Yes / No / Unsure

The following standard provides electrical requirements for equipment and wiring used in connection with cranes, monorail hoists, hoists, and all runways; disconnecting means and control panels for elevators, escalators, and moving walks; disconnecting means for electric welders; and disconnecting means for x-ray equipment. Reference each of the following paragraphs for requirements pertaining to specific purpose equipment.

<u>Paragraph (a)</u> applies to the installation of electric equipment and wiring used in connection with cranes, monorail hoists, hoists, and all runways. It provides requirements pertaining to disconnecting means, control, clearance, and grounding.

<u>Paragraph (b)</u> provides the requirements pertaining to disconnecting means, and control panels. <u>Paragraph (c)</u> provides the requirements pertaining to the disconnecting means for motor-generator, AC transformer, and DC rectifier arc welders, and resistance welders.

<u>Paragraph (d)</u> provides the requirements pertaining to disconnecting means and control of radiographic and fluoroscopic-type equipment.

In addition, 1926.417—<u>lockout and tagging of circuits,</u> provides for the tagging of controls, equipment and circuits that are to be deenergized or energized during the course of work.

<u>1926.406</u>—Specific purpose equipment and installations.

Do you have hazardous (i.e., flammable, combustible) locations? Yes / No / Unsure

The following standard provides the requirements for electric equipment and wiring in locations which are classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers which may be present therein and the likelihood that a flammable or combustible concentration or quantity is present. This standard provides the requirements pertaining to electrical installations such as being intrinsically safe, approved for the location, safe for the location and having threaded conduits wrench tight.

<u>1926.407</u>—Hazardous (classified) locations.

Do you have circuits or equipment operating at over 600 volts? Yes / No / Unsure

The following standard provides requirements for all circuits and equipment operating at over 600 volts. Paragraph (a) requirements for all circuits and equipment operated at over 600 volts. This includes wiring methods for fixed installations (i.e., above ground installations, installations emerging from the ground), interrupting and isolating devices (i.e., circuit breakers, fused cutouts), mobile and portable equipment, and tunnel installations (installation and use of high-voltage power distribution and utilization equipment which is associated with tunnels and which is portable and/or mobile, such as substations, trailers, cars, mobile shovels, draglines, hoists, drills, dredges, compressors, pumps, conveyors, and underground excavators).

<u>Paragraph (b)</u> provides requirements pertaining to classification of remote control (class, 1, 2, and 3), signaling, and power-limited circuits (i.e., maximum voltage), and marking.

<u>Paragraph (c)</u> provides requirements for communications systems such as central-station-connected and non-central-station-connected telephone circuits, radio receiving and transmitting equipment, outside wiring for fire and burglar alarm, and similar central station systems. These requirements pertain to protective devices, conductor location, equipment location, and grounding.

1926.408—Special systems.

Do employees use electricity at the worksite? Yes / No / Unsure

The following standard provides for the protection of employees (i.e., deenergizing and grounding circuits, guarding live circuits with insulation, use of insulated protective gloves), passageways and open spaces (i.e., barriers, work areas kept clear), load ratings, fuses (i.e., special tools), and cables and cords (i.e., not worn or frayed, not fastened with staples, hung from nails, or suspended by wire). Also reference 1926.417—lockout and tagging of circuits which provides for the tagging of controls, equipment and circuits that are to be deenergized or energized during the course of work.

<u>1926.416</u>—General requirements.

Do employees need to lock and tag equipment? Yes / No / Unsure

The following standard provides for the tagging of controls, equipment and circuits that are to be deenergized or energized during the course of work.

1926.417—Lockout and tagging of circuits.

Do employees provide maintenance on equipment? Yes / No / Unsure

The following standard states that all wiring components and utilization equipment in hazardous locations are to be maintained in a dust-tight, dust-ignition-proof, or explosion-proof condition, as appropriate and that there shall be no loose or missing screws, gaskets, threaded connections, seals, or other impairments to a tight condition.

Also reference 1926.417—<u>lockout and tagging of circuits</u> which provides for the tagging of controls, equipment and circuits that are to be deenergized or energized during the course of work.

<u>1926.431</u>—Maintenance of equipment.

Do employees install conductors or equipment in areas where environmental deterioration may be an issue? Yes / No / Unsure

The following standard provides requirements pertaining to deteriorating agents (i.e., damp or wet location; exposure to excessive temperatures; exposure to gases, fumes, vapors, and liquids; equipment approved for dry locations), and protection against corrosion.

1926.432—Environmental deterioration of equipment.

Do you store batteries or have battery charging installations? Yes / No / Unsure

The following standard provides general requirements pertaining to location, ventilation, racks and trays, personal protective equipment, fire protection, quick drenching facilities, and battery charging areas (i.e., designated areas, damage protection, vent caps).

1926.441—Battery locations and battery charging.

Do employees work on or near electrical equipment or systems? Yes / No / Unsure

The following standard provides the definition applicable to this subpart.

<u>1926.449</u>—Definitions.

SUBPART K REFERENCES:

Acids and bases

Combustible dust

Competent person

Electrical safety

Flammable liquids

Hoists

Illumination

Lockout/tagout

Personal protective equipment

Radiation, ionizing and non-ionizing

Subpart L—Scaffolds

Does" **Subpart L**—Scaffolds" apply to you?

This subpart contains standards for scaffolds and aerial lifts used in construction. It does not apply to crane or derrick suspended personnel platforms.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do your employees use scaffolds or aerial lifts? Yes / No / Unsure

The following standard provides the scope, application, and definitions applicable to this subpart.

<u>1926.450</u>—Scope, application and definitions applicable to this subpart.

Do your employees use scaffolds? Yes / No / Unsure

The following standard covers load capacity, scaffold platform construction, criteria for supported scaffolds and suspension scaffolds, scaffold access (i.e., ladders, personnel hoists), use of scaffolds (i.e., design, clearance around power lines, weather), fall protection (i.e., guardrail systems, lifelines), and falling object protection (i.e., toeboards, canopies, guardrails).

Reference 1926.452—additional requirements applicable to specific types of scaffolds, which covers specific requirements for pole scaffolds, tube and coupler scaffolds, fabricated frame scaffolds, bricklayers' square scaffolds, horse scaffolds, form scaffolds and carpenters' bracket scaffolds, roof bracket scaffolds, outrigger scaffolds, pump jack scaffolds, ladder jack scaffolds, window jack scaffolds, crawling boards, step, platform, and trestle ladder scaffolds, single-point adjustable suspension scaffolds, two-point adjustable suspension scaffolds, multi-point adjustable suspension scaffolds, and masons' multi-point adjustable suspension scaffolds, catenary scaffolds, float (ship) scaffolds, interior hung scaffolds, needle beam scaffolds, multi-level suspended scaffolds, repair bracket scaffolds, and stilts. Reference 1926.454—training requirements.

<u>1926.451</u>—General requirements.

Do your employees use scaffolds? Yes / No / Unsure

The following standard covers specific requirements for pole scaffolds, tube and coupler scaffolds, fabricated frame scaffolds, bricklayers' square scaffolds, horse scaffolds, form scaffolds and carpenters' bracket scaffolds, roof bracket scaffolds, outrigger scaffolds, pump jack scaffolds, ladder jack scaffolds, window jack scaffolds, crawling boards, step, platform, and trestle ladder scaffolds, single-point

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

adjustable suspension scaffolds, two-point adjustable suspension scaffolds, multi-point adjustable suspension scaffolds, stonesetters' multi-point adjustable suspension scaffolds, and masons' multi-point adjustable suspension scaffolds, catenary scaffolds, float (ship) scaffolds, interior hung scaffolds, needle beam scaffolds, multi-level suspended scaffolds, repair bracket scaffolds, and stilts.

The additional requirements are dependent on type of scaffold, but pertain to requirements regarding bracing, bearers, runners, designs (by registered professional engineer), outrigger beams, guardrails and fall protection, ladders (Reference subpart X—<u>stairways and ladders</u>), platforms, qualified persons, ropes, bridge connections, hoists, casters and wheels, riding scaffolds, brackets, and providing proper maintenance to stilts. Reference 1926.454—<u>training requirements</u>.

<u>1926.452</u>—Additional requirements applicable to specific types of scaffolds.

Do employees use aerial lifts? Yes / No / Unsure

The following standard provides requirements for aerial lifts that are "field modified", and specific requirements pertaining to securing of aerial ladders for highway travel, extensible and articulating boom platforms (i.e., testing lift controls, authorized person operating aerial lift, use of body belts, load limits, use of brakes and wheel chocks, lift insulation, inspections, other safety procedures), electrical tests (references consensus standards), bursting safety factors for critical hydraulic and pneumatic components (references consensus standards), and references welding consensus standards.

Aerial lifts include the following types of vehicle-mounted aerial devices used to elevate personnel to jobsites above ground:

- Extensible boom platforms;
- Aerial ladders:
- Articulating boom platforms;
- Vertical towers; and
- A combination of any such devices. **Note:** Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material; may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.

1926.453—Aerial lifts.

Do your employees use scaffolds? Yes / No / Unsure

The following standard provides the requirement that training be provided by a person qualified in the subject matter and includes the topics to be covered in the training. It also requires that each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold be trained by a competent person to recognize any hazards associated with the work in question and includes the topics to be covered in the training. Lastly, it requires retraining when there is reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds.

It states that it supplements and clarifies the training required by 1926.21—<u>safety training and education</u>, paragraph (b)(2).

1926.454—Training requirements.

SUBPART L REFERENCES:

Aerial lifts

Competent person

Fall protection

<u>Scaffolds</u>

Subpart M—Fall Protection

Does "Subpart M—Fall Protection" apply to you?

This subpart contains the standards for fall protection in construction workplaces with exceptions noted for subparts for scaffolds, cranes and derricks, steel erection, underground construction, communication and broadcast towers, electric transmission and distribution lines, stairways and ladders.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are your employees exposed to fall hazards that are not covered by another subpart? Yes / No / Unsure

The following standard provides the scope, application, and definitions applicable to this subpart. It states that the provisions of this subpart do not apply when employees are making an inspection, investigation, or assessment of workplace conditions prior to the actual start of construction work or after all construction work has been completed. It sets forth that those workplaces, conditions, operations, and circumstances for which fall protection shall be provided except:

- Fall protection requirements for employees working on scaffolds are provided in <u>subpart L</u>.
- Fall protection requirements for employees working on cranes and derricks are provided in subpart CC—fall protection.
- Fall protection requirements for employees performing steel erection work (except for towers and tanks) are provided in subpart R—steel erection on <u>fall protection</u>.
- Fall protection requirements for employees working on equipment used in tunneling operations are provided in subpart S—underground construction.
- Fall protection requirements for employees engaged in the erection of tanks and communication and broadcast towers are provided in subpart E—<u>safety nets</u>. **Note:** North Carolina has a state specific standard for communication towers that includes fall protection requirements.
- Fall protection requirements for employees working from aerial lifts or on poles, towers, or similar structures while engaged in the construction of electric transmission or distribution lines or equipment are provided in subpart V.
- Fall protection requirements for employees working on stairways and ladders are provided in subpart X—general requirements.

1926.500—Scope, application, and definitions applicable to this subpart.

Are your employees exposed to fall hazards that are not covered by another subpart? Yes / No / Unsure

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The following standard covers the general requirements for fall protection including walking and working surfaces having requisite strength and structural integrity to support employees safely. It also provides requirements for having fall protection (when six feet or more above lower level) for unprotected sides and edges, leading edges, hoist areas, holes, ramps, wall openings, and runways.

It also provides requirements for fall protection during work operations involving excavations, formwork, dangerous equipment, overhand bricklaying and related work, steep roofs, precast concrete erection, residential construction and fall protection for walking and working surfaces (i.e., guardrail system, safety net system, personal fall arrest system). Further, it requires protection from falling objects (i.e., hardhat) along with other protective measures such as barricades, toeboards, screens, guardrail systems and canopy structures.

Also reference 1926.502—Fall protection systems criteria and practices and <u>1926.503</u>—Training requirements.

1926.501—Duty to have fall protection.

Are your employees exposed to fall hazards that are not covered by another subpart? Yes / No / Unsure

The following standard provides fall protection system criteria for guardrail systems, safety net systems, personal fall arrest systems (PFAS), positioning device systems, warning line systems, controlled access zones, and safety monitoring systems. It also provides criteria for covering holes in floors, roofs, and other walking/working surfaces and protection from falling objects (i.e., toeboards, guardrails, canopies). Further, it provides an option for a fall protection plan that is available only to employees engaged in leading edge work [Reference paragraph 1926.501(b)(2)], precast concrete erection work [Reference paragraph 1926.501(b)(12)], or residential construction work [Reference paragraph 1926.501(b)(13)] who can demonstrate that it is infeasible or it creates a greater hazard to use conventional fall protection equipment. The fall protection plan must conform to specific requirements including preparation by a qualified person, implemented by a competent person, and in writing.

1926.502—Fall protection systems criteria and practices.

Are your employees exposed to fall hazards that are not covered by another subpart? Yes / No / Unsure

The following standard provides requirements for a training program, competent person to provide the training, certification of training (i.e., written certification record), and when retraining is required (i.e., inadequacies in an affected employee's knowledge or use of fall protection systems, changes in systems to be used).

<u>1926.503</u>—Training requirements.

SUBPART M APPENDICES:

Subpart M, appendix A pertains to determining roof widths.

Subpart M, <u>appendix B</u> pertains to guardrail systems.

Subpart M, appendix C pertains to personal fall arrest systems.

Subpart M, appendix D pertains to positioning device systems.

Subpart M, <u>appendix E</u> provides an example fall protection plan.

SUBPART M REFERENCES:

Fall protection

Competent person

Personal protective equipment

Subpart N—Helicopters, Hoists, Elevators, and Conveyors

Does "Subpart N—Helicopters, Hoists, Elevators, and Conveyors" apply to you?

This subpart contains the standards for the use of helicopters, material hoists, personnel hoists, elevators, base-mounted drum hoists, overhead hoists, and conveyors.

Yes / No / Unsure If yes, please continue.

Do employees use helicopters? Yes / No / Unsure

The following standard states that you need to comply with any applicable regulations of the Federal Aviation Administration. It provides requirements pertaining to briefings, slings and tag lines, cargo hooks, personal protective equipment, housekeeping, operator responsibilities, hooking an unhooking loads, weight limitations, static charge, visibility, ground lines, signal systems, ground personnel, fires, communications, approaching distances and approaching helicopters.

<u>1926.551</u>—Helicopters.

Do employees use material or personnel hoists or elevators? Yes / No / Unsure

The following standard provides general requirements for the use of hoists such as rated load capacity, hoisting ropes, heat damage, and complying with the manufacturer's specifications. It also provides specific requirements for material hoists (i.e., operating rules, gates, riding, overhead protection, hoist towers) and personnel hoists (i.e., hoist towers, doors, gates, overhead protection, safeties, combustion engines, hoisting ropes, safety factors, consensus standards).

The standard also provides general requirements for permanent elevators such as complying with the American National Standards Institute A17.1-1965 with addenda A17.1a-1967, A17.1b-1968, A17.1c-1969, A17.1d-1970, and inspected in accordance with A17.2-1960 with addenda A17.2a-1965, A17.2b-1967 and following manufacturer's specifications.

<u>1926.552</u>—Material hoists, personnel hoists and elevators.

Do employees use base-mounted drum hoists? Yes / No / Unsure

The following standard provides general requirements for base-mounted drum hoists including guarding of exposed moving parts, overspeed preventive devices and following manufacturer's specifications. It does not apply to base-mounted drum hoists used in conjunction with derricks.

1926.553—Base-mounted drum hoists.

Do employees use overhead hoists? Yes / No / Unsure

The following standard provides general requirements for overhead hoists such as safe working loads, supporting structures, location, air hoists, and following manufacturer's specifications.

1926.554—Overhead hoists.

Do employees use conveyors? Yes / No / Unsure

The following standard provides the general requirements for conveyors including audible warning signals, stopping motor or engine, emergency stop switches, guarding, signage (Reference <u>subpart G</u>—signs, signals and barricades), locking and tagging, and meeting ANSI B20.1-1957, Safety Code for Conveyors, Cableways, and Related Equipment.

<u>1926.555</u>—Conveyors.

SUBPART N REFERENCES:

Competent person

Cranes and derricks

Hoists

Lockout/tagout

Machine guarding

Materials handling and storage

Personal protective equipment

Subpart O—Motor Vehicles, Mechanized Equipment, and Marine Operations

Does "Subpart O—Motor Vehicles, Mechanized Equipment, and Marine Operations" apply to you?

This subpart contains the standards for motor vehicles, material handling equipment, pile driving equipment, site clearing and marine operations and equipment.

Note: References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do employees use any type of equipment at the job site? Yes / No / Unsure

The following standard provides general requirements for equipment left unattended; heavy machinery, equipment or parts suspended or held aloft; use of parking brakes; cab safety glass; work conducted near power lines or energized transmitters; use, care and charging of batteries; and rolling railroad cars. It also references 1926.441—<u>batteries and battery charging</u>, for more information related to batteries.

<u>1926.600</u>—Equipment.

Do employees use motor vehicles within an off-highway jobsite? Yes / No / Unsure

The following standard covers vehicles that operate within an off-highway jobsite, not open to public traffic. It provides general requirements related to brake systems, headlights and taillights, audible warning devices, windshields, seatbelts, dump trucks, fenders, mud flaps, and inspections. These requirements do not apply to material handling equipment.

1926.601—Motor vehicles.

Do employees use material handling equipment? Yes / No / Unsure

The following standard applies to the following types of earthmoving equipment: scrapers, loaders, crawler or wheel tractors, bulldozers, off-highway trucks, graders, agricultural and industrial tractors, and similar equipment.

It provides requirements for seat belts, access roadways and grades, brakes, fenders, rollover protective devices (ROPS), audible alarms, and scissor points. It also provides specific requirements for excavating and other similar equipment, lifting and hauling equipment, powered industrial truck (PIT) operator training and references consensus standards. The PIT operator training is identical to those required by the general industry standard, 1910.178—powered industrial trucks.

1926.602—Material handling equipment.

Do employees use pile driving equipment? Yes / No / Unsure

The following standard provides general requirements related to boilers and piping systems, pressure vessels, overhead protection, stop blocks, blocking devices, guards, use of signalmen, pile driving from boats and barges, and keeping clear of piling.

<u>Pile drivers</u> are devices used to drive poles into the soil.

<u>1926.603</u>—Pile driving equipment.

Are employees engaged in site clearing? Yes / No / Unsure

The following standard provides general requirements related to the hazards of irritant and toxic plants, first aid treatment, and rollover guards.

<u>1926.604</u>—Site clearing.

Are employees engaged in marine operations? Yes / No / Unsure

The following standard provides requirements pertaining to access to barges, walking surfaces of barges, first aid and lifesaving equipment, and commercial diving operations. Commercial diving operations must meet the general industry requirements of subpart T—commercial diving operations.

Operations fitting the definition of material handling (below) shall be performed in conformance with applicable requirements Part 1918—<u>safety and health regulations for longshoring</u>.

<u>Longshoring operations</u> - Means the loading, unloading, moving, or handling of construction materials, equipment and supplies, etc. into, in, on, or out of any vessel from a fixed structure or shore-to-vessel, vessel-to-shore or fixed structure or vessel-to-vessel.

1926.605—Marine operations and equipment.

Do employees use any type of equipment at the job site? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1926.606—Definitions.

SUBPART O REFERENCES:

Acids and bases

5.

<u>Aerial lifts</u>

Commercial diving

Cranes and derricks

Electrical safety

Highway work zone safety

Materials handling and storage,

Subpart P—Excavations

Does "Subpart P—Excavations" apply to you?

This subpart contains the standards for all open excavations made in the earth's surface. Excavations are defined to include trenches.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are your employees engaged in excavations or trenching work? Yes / No / Unsure

The following standard provides the scope, application and definitions for excavations and trenching work.

<u>Excavation</u> - Means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

<u>Trench (trench excavation)</u> - Means a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

1926.650—Scope, application, and definitions applicable to this subpart.

Are your employees engaged in excavations or trenching work? Yes / No / Unsure

The following standard covers surface encumbrance, underground installations, access and egress, exposure to vehicular traffic, exposure to falling loads, warning system for mobile equipment, hazardous atmospheres (Reference subparts D—occupational health and environmental controls and E—personal protective and life saving equipment), emergency rescue equipment, protection from hazards associated with water accumulation, stability of adjacent structures, protection of employees from loose rock or soil, and daily inspections.

<u>1926.651</u>—Specific excavation requirements.

Are your employees engaged in excavations or trenching work? Yes / No / Unsure

The following standard provides the requirements for design of support systems, shield systems, other protective systems, materials and equipment, installation and removal of support, shield systems, and design of sloping and benching systems.

<u>1926.652</u>—Requirements for protective systems.

SUBPART P APPENDICES:

Subpart P, appendix A provides soil classification.

Subpart P, appendix B provides sloping and benching.

Subpart P, appendix C provides timber shoring for trenches.

Subpart P, appendix D pertains to aluminum hydraulic shoring for trenches.

Subpart P, appendix E provides alternatives to timber shoring.

SUBPART P REFERENCES:

Competent person

Electrical safety

Excavation and trenching

Hazard communication

Personal protective equipment

Subpart Q—Concrete and Masonry Construction

Does "Subpart Q—Concrete and Masonry Construction" apply to you?

This subpart contains the standards for concrete and masonry construction operations.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are your employees engaged in concrete or masonry work? Yes / No / Unsure

The following standard provides the scope, application, and definitions applicable to concrete and masonry work.

1926.700—Scope, application, and definitions applicable to this subpart.

Are your employees engaged in concrete or masonry work? Yes / No / Unsure

The following standard covers the general requirements pertaining to construction loads, reinforcing steel, post-tensioning operations, riding concrete buckets, working under loads, and personal protective equipment. This standard will apply to all concrete and masonry work.

1926.701—General requirements.

Are your employees engaged in concrete or masonry work? Yes / No / Unsure

The following standard covers the requirements for bulk cement storage, concrete mixers, power concrete trowels, concrete pumping systems, concrete buggies, concrete buckets, tremies, masonry saws, and lockout/tagout procedures. This standard will apply to all concrete and masonry work.

<u>1926.702</u>—Requirements for equipment and tools.

Are employees engaged in cast-in-place concrete operations? Yes / No / Unsure

The following standard covers requirements for formwork, shoring and reshoring, vertical slip forms, reinforcing steel, and removal of formwork. Also reference 1926.701—general requirements, and 1926.702—requirements for equipment and tools.

<u>1926.703</u>—Requirements for cast-in-place concrete.

Are employees engaged in precast concrete operations? Yes / No / Unsure

The following standard covers requirements pertaining to precast concrete wall units, structural framing, tilt-up wall panels, lifting inserts, lifting hardware, and employee location with respect to concrete members being lifted. Also reference 1926.701—general requirements, and 1926.702—requirements for equipment and tools.

<u>Precast concrete</u> - Means concrete members (such as walls, panels, slabs, columns, and beams) which have been formed, cast, and cured prior to final placement in a structure.

1926.704—Requirements for precast concrete.

Are employees engaged in lift-slab operations? Yes / No / Unsure

The following standard covers design by a registered professional engineer (RPE), jacks/lifting units, jacking equipment, jacking operations, leveling, welding, load transfers, and locking and blocking devices. Also reference 1926.701—general requirements and 1926.702—requirements for equipment and tools, 1926.305—jacks-lever and ratchet, screw, and hydraulic, subpart J—welding and cutting and the appendix for non-mandatory guidance regarding lift-slab operations.

<u>Jacking operation</u> - Means the task of lifting a slab (or group of slabs vertically from one location to another (e.g., from the casting location to a temporary (parked) location, or to its final location in the structure), during the construction of a building/structure where the lift-slab process is being used.

<u>Lift slab</u> - Means a method of concrete construction in which floor, and roof slabs are cast on or at ground level and, using jacks, lifted into position.

1926.705—Requirements for lift-slab construction operations.

Are employees engaged in masonry work? Yes / No / Unsure

The following standard provides the requirements related to limited access zones and bracing such as establishing a limited access zone, restrictions, remaining in place, and adequate bracing. Also reference 1926.701—general requirements and 1926.702—requirements for equipment and tools.

<u>Limited access zone</u> - Means an area alongside a masonry wall, which is under construction, and which is clearly demarcated to limit access by employees.

1926.706—Requirements of masonry construction.

SUBPART Q REFERENCES:

Concrete and masonry construction
Lockout/tagout

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Machine guarding

Personal protective equipment

<u>Silica</u>

Welding and cutting

Subpart R—Steel Erection

Does "Subpart R—Steel Erection" apply to you?

This subpart contains the standards for steel erection activities involved in the construction, alteration, and/or repair of single and multi-story buildings, bridges, and other structures where steel erection occurs.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides the scope which states that this subpart applies to employers engaged in steel erection unless otherwise specified. It does not cover electrical transmission towers, communication and broadcast towers, or tanks.

<u>Steel erection activities</u> - Include hoisting, laying out, placing, connecting, welding, burning, guying, bracing, bolting, plumbing and rigging structural steel, steel joists and metal buildings; installing metal decking, curtain walls, window walls, siding systems, miscellaneous metals, ornamental iron and similar materials; and moving point-to-point while performing these activities.

The following activities are covered by this subpart when they occur during and are a part of steel erection activities: rigging, hoisting, laying out, placing, connecting, guying, bracing, dismantling, burning, welding, bolting, grinding, sealing, caulking, and all related activities for construction, alteration and/or repair of materials and assemblies such as structural steel; ferrous metals and alloys; non-ferrous metals and alloys; glass; plastics and synthetic composite materials; structural metal framing and related bracing and assemblies; anchoring devices; structural cabling; cable stays; permanent and temporary bents and towers; falsework for temporary supports of permanent steel members: stone and other non-precast concrete architectural materials mounted on steel frames: safety systems for steel erection; steel and metal joists; metal decking and raceway systems and accessories; metal roofing and accessories; metal siding; bridge flooring; cold formed steel framing; elevator beams; grillage; shelf racks; multi-purpose supports; crane rails and accessories; miscellaneous, architectural and ornamental metals and metal work; ladders; railings; handrails; fences and gates; gratings; trench covers; floor plates; castings; sheet metal fabrications; metal panels and panel wall systems; louvers; column covers; enclosures and pockets; stairs; perforated metals; ornamental iron work, expansion control including bridge expansion joint assemblies; slide bearings; hydraulic structures; fascias; soffit panels; penthouse enclosures; skylights; joint fillers; gaskets; sealants and seals; doors; windows; hardware; detention/security equipment and doors, windows and hardware; conveying systems; building specialties; building equipment; machinery and plant equipment, furnishings and special construction.

In addition, you need to comply with the North Carolina state-specific standard 7F .0205—<u>steel erection</u>. This standard expanded and clarified the 1926.760—<u>scope</u> and added more requirements pertaining to tripping hazards to 1926.754—<u>paragraph (c)(1)</u>.

1926.750—Scope.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1926.750—Definitions.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides the requirements pertaining to approval to begin steel erection, commencement of steel erection, site layout, pre-planning of overhead hoisting operations and site-specific erection plan.

<u>1926.752</u>—Site layout, site-specific erection plan and construction sequence.

Are employees doing steel erection work? Yes / No / Unsure

The following standard applies to hoisting and rigging activities and includes complying with subpart CC—<u>cranes and derricks in construction</u>, as well as requirements for visual inspections, having qualified riggers (i.e., qualified person), working under loads, and multiple lifts.

<u>1926.753</u>—Hoisting and rigging.

Are employees doing steel erection work? Yes / No / Unsure

The following standard applies to requirements pertaining to structural stability, multi-story structures, walking/working surfaces (i.e., tripping hazards), plumbing up, and metal decking (i.e., holes and openings, decking gaps, installation).

<u>1926.754</u>—Structural steel assembly.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides requirements pertaining to stability, repair and replacement. This standard does not apply to systems-engineering metal buildings.

1926.755—Column anchorage.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides the requirements for releasing the load, diagonal bracing, double connections, column splices, and perimeter columns.

1926.756—Beams and columns.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides the requirements for field bolting, attachment of steel joists and steel joist girders, erection of steel joists, erection bridging, and landing and placing loads. This standard does not apply to systems-engineering metal buildings.

1926.757—Open web steel joists.

Do employees work on systems-engineering metal buildings? Yes / No / Unsure

The following standard provides the requirements pertaining to anchors, rigid frames, construction loads, girt and eave strut-to-frame connections, ends of steel joists or cold-formed joists, and purlins and girts. The requirements of 1926.756—<u>column anchorage</u> and 1926.757—<u>open-web steel joists</u>, do not apply to systems-engineered metal buildings.

<u>1926.758</u>—Systems-engineered metal buildings.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides requirements pertaining to securing of loose items aloft and protection from falling objects other than those being hoisted.

Also reference 1926.760—<u>fall protection</u> provides requirements for fall protection systems (i.e., guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, fall restraint systems) at 15 feet or higher, connectors, controlled decking zones (CDZ), criteria for fall protection equipment, and custody of fall protection. 1926.761—<u>training</u> states that training must be conducted by a qualified person, there must be a training program, and providing for additional special training programs for employees that are engaged in procedures related to multiple lift rigging, connectors and/or controlled decking zones.

1926.759—Falling object protection.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides requirements for fall protection systems (i.e., guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, fall restraint systems) at 15 feet or higher, connectors, controlled decking zones (CDZ), criteria for fall protection equipment, and custody of fall protection.

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1926.760—Fall protection.

Are employees doing steel erection work? Yes / No / Unsure

The following standard provides requirements for training to be conducted by a qualified person, having a training program, and having additional special training programs for employees that are engaged in procedures related to multiple lift rigging, connectors and/or controlled decking zones.

<u>1926.761</u>—Training.

SUBPART R APPENDICES:

Subpart R, appendix A provides guidelines for establishing the components of a site-specific erection plan: non-mandatory guidelines for complying with paragraph 1926.752(e) - site-specific erection plan.

SUBPART R REFERENCES:

Competent person

Cranes and derricks

Fall protection

Personal protective equipment

Steel erection

Subpart S—Underground Construction, Caissons, Cofferdams, and Compressed Air

Does "<u>Subpart S</u>—Underground Construction, Caissons, Cofferdams, and Compressed Air" apply to you?

This subpart contains the standards for underground construction, caissons, cofferdams, and compressed air work.

Note: Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees engaged in underground construction work? Yes / No / Unsure

The following standard applies to the construction of underground tunnels, shafts, chambers, and passageways. It also applies to cut-and-cover excavations which are both physically connected to ongoing underground construction operations and covered in such a manner as to create conditions characteristic of underground construction. This standard does not apply to the following:

- Excavation and trenching operations covered by 1926 subpart P—<u>excavations</u>, such as foundation operations for above-ground structures that are not physical connected to underground construction operations, and surface excavation: nor
- Underground electrical transmission and distribution lines, as addressed 1926 subpart V— electric power transmission and distribution.

It provides requirements pertaining to access and egress, safety instruction (i.e., air monitoring, ventilation, illumination, PPE, emergency procedures), check-in/check-out, notifications of hazardous conditions at each shift, communications, emergency provisions (i.e. self-rescue, rescue teams), hazardous classifications, gassy operations, air quality and monitoring, ventilation, fire prevention and control (i.e., smoking, open flames, fuel, welding), illumination, ground support, drilling, haulage, electrical safety, and cranes and hoists.

1926.800—Underground construction.

Are employees engaged in caisson work? Yes / No / Unsure

The following standard provides requirements regarding shafts, compressed air and gauges.

<u>Caisson</u> - A wood, steel, concrete or reinforced concrete, air- and water-tight chamber in which it is possible for men to work under air pressure greater than atmospheric pressure to excavate material below water level.

1926.801—Caissons.

Are employees engaged in cofferdam work? Yes / No / Unsure

The following standard provides requirements for controlling flooding and providing warning signals and guardrails.

Cofferdam - An enclosure that allows for construction work in a body of water that has been pumped dry.

1926.802—Cofferdams.

Do employees use compressed air? Yes / No / Unsure

The following standard covers medical attendance, examination and regulations; telephone and signal communication; signs and records; compression; decompression; compressor plant and air supply; ventilation and air quality; electricity; sanitation; fire prevention and protection; and bulkheads and safety screens.

1926.803—Compressed air.

Do employees do work involving underground construction, caissons, cofferdams, and/or compressed air? Yes / No / Unsure

The following standard provides the definitions for this subpart.

1926.804—Definitions applicable to this subpart.

SUBPART S APPENDICES:

Underground Construction, Caissons, Cofferdams, and Compressed Air:

Subpart S, appendix A provides the decompression tables.

SUBPART S REFERENCES:

Compressed air and compressed air equipment

Competent person

Confined spaces

Cranes and derricks

Underground construction

Electrical safety

Fire prevention plans

Hazard communication

Medical services and first aid

Noise,

Personal protective equipment

Respiratory protection

<u>Silica</u>

Welding and cutting

Subpart T—Demolition

Does "Subpart T—Demolition" apply to you?

This subpart contains the standards for demolition operations including preparatory operations, explosives, removal and storage.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do your employees do preparatory operations? Yes / No / Unsure

The following standard provides requirements for an engineering survey of the structure by a competent person, controlling existing hazards, shoring and bracing for structures damaged by fire, flood, explosions or other related cause, services (i.e., electric, gas, water) being controlled, wall and floor openings, and protecting employee entrances.

1926.850—Preparatory operations.

Are employees doing demolition work? Yes / No / Unsure

The following standard covers safe accessways and illumination requirements.

1926.851—Stairs, passageways, and ladders.

Are employees doing demolition work? Yes / No / Unsure

The following standard covers dropping of materials, use of gates, securing areas, and chute design and construction.

1926.852—Chutes.

Are employees doing demolition work? Yes / No / Unsure

The following standard includes requirements pertaining to the size of openings cut into floors and weakened floors.

1926.853—Removal of materials through floor openings.

Are employees doing demolition work? Yes / No / Unsure

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

The following standard provides the requirements for floor openings, weather, load-supporting members, supporting walls, and providing walkways and ladders.

1926.854—Removal of walls, masonry sections, and chimneys.

Are employees doing demolition work? Yes / No / Unsure

The following standard provides requirements for openings cut in floors, removal of debris and floor arches, safe walkways, and stringer strength.

1926.855—Manual removal of floors.

Are employees doing demolition work? Yes / No / Unsure

The following standard provides the requirements pertaining to the use of mechanical equipment, floor openings, and that the use of cranes, derricks, and that other mechanical equipment must meet the requirements of subpart N—<u>helicopters, hoists, elevators, and conveyors,</u> subpart O—<u>motor vehicles, mechanized equipment, and marine operations, and subpart CC—<u>cranes and derricks in construction.</u></u>

1926.856—Removal of walls, floors, and material with equipment.

Are employees doing demolition work? Yes / No / Unsure

The following standard includes requirements for floor loading, removal of flooring boards and floor arches, wood floor beams used for bracing, and blocking off storage space.

1926.857—Storage.

Are employees doing demolition work? Yes / No / Unsure

The following standard provides the requirements pertaining to planking after removal of floor arches, dismantling (i.e., column by column, tier by tier), not overstressing structural members, and compliance with subpart N—<u>helicopters, hoists, elevators, and conveyors</u>, and subpart CC—<u>cranes and derricks in construction</u>.

1926.858—Removal of steel construction.

Are employees doing demolition work? Yes / No / Unsure

The following standard provides requirements pertaining to balling and clamming, demolition ball weight, competent person inspections and other demolition procedures.

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1926.859—Mechanical demolition.

Are employees doing demolition work by explosives? Yes / No / Unsure

The following standard requires compliance with subpart U—<u>blasting and the use of explosives</u>.

1926.860—Selective demolition by explosives.

SUBPART T REFERENCES:

Blasting and explosives
Competent person

Demolition

Subpart U—Blasting and Use of Explosives

Does "Subpart U—Blasting and Use of Explosives" apply to you?

This subpart contains the standards for blasting and using of explosives.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

In addition, the North Carolina State-specific standards 13 NCAC 07F .0701 through .0716—<u>Blasting</u> and Use of Explosives will also apply.

<u>Blasting agent</u> - Any material or mixture consisting of a fuel and oxidizer used for blasting, but not classified an explosive and in which none of the ingredients is classified as an explosive provided the furnished (mixed) product cannot be detonated with a No. 8 test blasting cap when confined. A common blasting agent presently in use is a mixture of ammonium nitrate (NH(4)NO(3)) and carbonaceous combustibles, such as fuel oil or coal, and may either be procured, premixed and packaged from explosives companies or mixed in the field.

<u>Explosives</u> - Any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion; that is, with substantially instantaneous release of gas and heat, unless such compound, mixture or device is otherwise specifically classified by the U.S. Department of Transportation and all material which is classified as Class A, Class B, and Class C Explosives by the U.S. Department of Transportation.

Yes / No / Unsure If yes, please continue.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements pertaining to authorized and qualified persons, heat sources, inventory and use record, use of drugs and alcohol, special precautions, signage, radio transmissions, deteriorated explosives, delivery, black powder, and storage buildings (i.e., building construction, flooring, ventilation, mixing water gels, heating units).

1926.900—General provisions.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for the blaster to be qualified, in good physical condition, capable of receiving and giving orders, not addicted to drugs and alcohol, knowledgeable of state and local regulations pertaining to explosives, evidence of competency, and knowledgeable in each type of blasting methods used.

1926.901—Blaster qualifications.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements pertaining to meeting the provisions of the Department of Transpiration requirements, driver criteria (i.e., physical condition, licensed, trained on fire extinguishers, familiar with local, state and federal regulations), ignition sources, vehicle maintained in good condition, placarding, not left unattended and other safety measures.

1926.902—Surface transportation of explosives.

Do you transport explosives underground? Yes / No / Unsure

The following standard provides requirements pertaining to quantity, not left unattended, shaft conveyance, certification record (i.e., inspection of electrical system), and other transportation safety measures.

<u>1926.903</u>—Underground transportation of explosives.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements for storing explosives in approved facilities (under applicable provisions of the bureau of Alcohol, Tobacco, Firearms and Explosives), storing caps, primers and cartridges separately from explosives and blasting agents, exits, and underground storage.

<u>1926.904</u>—Storage of explosives and blasting agents.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements for having safe and efficient loading procedures, not allowing unattended explosives and blasting agents, and no activity allowed in blast area working in areas with combustible gas and dusts. It also provides requirements pertaining to drill holes, tamping, loading holes, drilling, machines and tools, powerlines and electric cables, ventilation, warning signs, bore holes, running inventory of explosives and blasting agents, and bonding and grounding.

1926.905—Loading of explosives or blasting agents.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements for not using electric blasting caps near sources of extraneous electricity, eliminating dangerous currents, blaster surveying for extraneous currents, using same style or function of blasting caps, and following electric blasting cap manufacturer's recommendations. It provides requirements related to insulated connecting wires and lead wires, bus wires, insulation on firing lines, not grounding power circuit used for firing electric blasting caps, underground operations (i.e., safety switches, lightning gaps), firing switches, use of blasting machines, use of blasting galvanometers and other instruments, and working around live powerlines.

1926.906—Initiation of explosive charges - electric blasting.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements pertaining to using a safety fuse where sources of extraneous electricity make the use of electric blasting caps dangerous, not using hammered or injured fuses, not hanging fuses on nails or other projections, having fresh cut ends, and use of cap crimpers. It also provides requirements pertaining to unused caps, sources of ignition, not carrying detonators or primers, minimum length of a safety fuse, hand lighting methods, length and burning rate of fuses, firing mudcap charges, and not using "drop fuse" method of dropping or pushing a primer or any explosive with a lighted fuse attached.

1926.907—Use of safety fuse.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for using care in the selection of the detonating cord, handling detonating cord with same respect given explosives, cutting from the supply spool, and to avoid damaging the detonating cord. It provides requirements for competent and positive detonating cord connections, inspecting detonating cord connections, trunklines and branchlines free of loops and kinks, following manufacturer recommendations, securely attaching blasting caps, and when to bring in or attach the detonators.

1926.908—Use of detonating cord.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for posting the code of blasting signals, use of a loud warning signal by blaster in charge before firing a blast, having flagman stationed on highways, fixing time of blast, and for underground blasts, guarding entrances and providing a warning before the blast.

<u>1926.909</u>—Firing the blast.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for disconnecting the firing line from the blasting machine immediately after the blast has been fired, inspecting the blast area and rubble by the blaster to determine if all charges have exploded before allowing employees in the area, and for blasts in tunnels, allowing time for smoke and fumes to leave blast area and for the muck pile to be wetted down before allowing employees in the area.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for safeguarding the danger zone when a misfire is found, removing the misfire, handling cap and fuse misfires, reblasting holes (i.e., if reblast a hazard, removing explosives with water; under water misfires blown out with air), and not allowing work (i.e., drilling, digging, picking) until all missed holes have been detonated or until work has been approved by authorized representative.

Misfire - An explosive charge which failed to detonate.

1926.911—Misfires.

Is blasting conducted underwater? Yes / No / Unsure

The following standard provides the requirements for the blaster to conduct all blasting operations, not using loading tubes and casings with dissimilar metals, using water-resistant blasting caps and detonating cords for marine blasting, using nonsparking metal loading tube when tubes are necessary, distances for vessels and crafts from blast site, not allowing blasts while swimming and diving operations are in progress in the vicinity, use of signals when any person is in the water, displaying blasting flags, using float devices and also references 1926.904—storage of explosives and blasting agents, and 1926.911—misfires.

<u>1926.912</u>—Underwater blasting.

Do you conduct blasting in excavation work under compressed air? Yes / No / Unsure

The following standard provides the requirements pertaining to not storing or keeping detonators and explosives in tunnels, shafts, or caissons, bringing detonators and explosives into an air lock, taking detonators and explosives into pressure working chambers separately, blaster or powderman responsibilities for receipt, unloading, storage, and on-site transportation of explosives and detonators, electrically bonding and grounding metal pipes, rails, air locks and steel tunnel lining, using water-resistant explosives, and tunnel excavation blasting in rock face and mixed face.

1926.913—Blasting in excavation work under compressed air.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

<u>1926.914</u>—Definitions applicable to this subpart.

SUBPART U REFERENCES:

Blasting and explosives

Competent person

Demolition

Fire protection and prevention

Subpart V—Electric Power Transmission and Distribution

Does "Subpart V—Electric Power Transmission and Distribution" apply to you?

This subpart contains the standards for electric power transmission and distribution lines and equipment. It does not apply to electrical safety-related work practices for unqualified employees.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. Appendices and references applicable to this subpart are located at the end of this section.

<u>Construction</u> includes the erection of new electric transmission and distribution lines and equipment, and the alteration, conversion, and improvement of existing electric transmission and distribution lines and equipment.

Yes / No / Unsure If yes, please continue.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard states that an employer that complies with the general industry standard 1910.269—<u>electric power generation, transmission, and distribution</u>, is considered in compliance with requirements in subpart V that do not reference other subparts of <u>29 CFR Part 1926</u> - <u>Construction</u>. Compliance with 1910.269—<u>electric power generation, transmission, and distribution</u> does not excuse an employer from compliance obligations under other subparts of <u>29 CFR Part 1926</u>. It also states that the following general industry standard requirements are applicable:

- Line-clearance tree trimming performed for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment shall comply with 1910.269—electric power generation, transmission, and distribution.
- Work involving electric power generation installations shall comply with 1910.269—<u>electric</u> <u>power generation, transmission, and distribution</u>.

The standard also provides definitions for this subpart and the requirements for training (i.e., safety related work practices, safety procedures, qualified person training, supervision, annual inspections, types of training demonstration of proficiency), host employer responsibilities, contract employer responsibilities, joint host and contract employer responsibilities, and existing characteristics and conditions (i.e., environmental, condition of circuits and equipment).

1926.950—General.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard references complying with 1926.50—<u>medical services and first aid</u>, and having first aid trained employees for field work and fixed work locations.

1926.951—Medical services and first aid.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard provides requirements for briefings before each job, number of briefings, extent of briefings, subjects to be covered, when additional briefings should occur, and briefings for those working alone.

<u>1926.952</u>—Job briefing.

Are employees work on electric power transmission and distribution lines and/or equipment in enclosed spaces? Yes / No / Unsure

The following standard covers enclosed spaces that may be entered by employees. This section applies to routine entry into enclosed spaces. If, after the employer takes the precautions given in this standard and in 1926.965—underground electrical installations, the hazards remaining in the enclosed space endanger the life of an entrant or could interfere with an entrant's escape from the space, then entry into the enclosed space must meet the permit space entry requirements of subpart AA—confined spaces in construction. This standard does not apply to vented vaults if the employer makes a determination that the ventilation system is operating to protect employees before they enter the space.

For routine entries where the hazards remaining in the enclosed space do not endanger the life of an entrant or interfere with an entrant's escape from the space, this standard applies in lieu of the permit space entry requirements contained 1926.1204—permit-required confined space program, permitting process, 1926.1206—entry permit, 1926.1207—training, 1926.1208—duties of authorized entrants, 1926.1209—duties of attendants, 1926.1210—duties of entry supervisors and 19126.1211—rescue and emergency services.

This standard provides the requirements pertaining to safe work practices, training, rescue equipment, evaluating potential hazards, removing covers, hazardous atmospheres, attendants, test instrument calibration, testing for oxygen deficiency, testing for flammable gases and vapors, ventilation and monitoring for flammable gases and vapors, ventilation requirements, air supply, and open flames.

1926.953—Enclosed spaces.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard provides that the personal protective equipment must meet the requirements of subpart E—personal protective and lifesaving equipment. This standard also provides requirements

for fall protection including personal fall arrest systems, work positioning equipment, and for the care and use of personal fall protection equipment.

The standard 1926.95—<u>criteria for personal protective equipment</u>, <u>paragraph (d)</u>, sets employer payment obligations for the personal protective equipment required by this subpart, including, but not limited to, the fall protection equipment required by <u>paragraph (b)</u> of this standard, and the electrical protective equipment required by the standard on 1926.960—<u>working on or near exposed energized parts</u>, <u>paragraph (c)</u>, and the flame-resistant and arc-rated clothing and other protective equipment required by <u>paragraph (g)</u>.

1926.954—Personal protective equipment.

Are employees using portable ladders or platforms? Yes / No / Unsure

The following standard states that the requirements for portable ladders contained in 1926 subpart X—stairways and ladders, apply in addition to the requirements of this standard. This standard also provides that special ladders and platforms must meet requirements for design load, maximum load, for being secured in place, for use as intended, and use of conductive ladders.

<u>1926.955</u>—Portable ladders and platforms.

Are employees using hand and portable power equipment? Yes / No / Unsure

The following standard has three main paragraphs. Paragraph (b) provides the requirements for electric equipment connected by cord and plug not covered by subpart K - electrical; paragraph (c) covers portable and vehicle-mounted generators used to supply cord- and plug-connected equipment (i.e., grounding, bonding); and paragraph (d) provides the requirements for hydraulic and pneumatic tools (i.e., hydraulic fluid, work near energized parts, protection against vacuum formation, protection against the accumulation of moisture, breaking connections, hoses, leaks).

<u>1926.956</u>—Hand and portable power equipment.

Are employees using live-line tools? Yes / No / Unsure

The following standard provides requirements for the design of tools (i.e., fiberglass-reinforced plastic, wood) and condition of tools (i.e., inspections, testing, defects, references consensus standard).

1926.957—Live-line tools.

Are employees using material handling equipment? Yes / No / Unsure

The following standard states that the employer must comply with the requirements of subpart N—helicopters, hoists, elevators and conveyors, and subpart CC—cranes and derricks in construction. In

addition, it provides requirements for materials storage near energized lines or equipment (i.e., restricted areas, unrestricted areas).

<u>1926.958</u>—Materials handling and storage.

Are employees using mechanical equipment? Yes / No / Unsure

The following standard requires that mechanical equipment be operated in accordance with subpart N—helicopters, hoists, elevators and conveyors, subpart O—motor vehicles, mechanized equipment and marine operations, and subpart CC—cranes and derricks in construction. It also provides requirements pertaining to inspections, operators of an electric line truck, outriggers, applied loads, and operations near energized lines or equipment.

<u>1926.959</u>—Mechanical equipment.

Are employees working on or near exposed parts? Yes / No / Unsure

The following standard applies to work on exposed live parts, or near enough to them to expose the employee to any hazard they present. It provides the requirements pertaining to qualified persons, treating electric lines and equipment as energized, when two employees are required, live work (i.e., minimum approach distances, type of insulation), working position (i.e., working from below, working without electrical protective equipment), making connections, conductive articles, protection from flames and electric arcs (i.e., hazard assessment, prohibited clothing, flame-resistant clothing, arc rating), fuse handling, covered (noninsulated) conductors, non-current-carrying metal parts, and opening and closing circuits under load.

1926.960—Working on or near exposed energized parts.

Do employees deenergize lines or equipment? Yes / No / Unsure

The following standard applies to the deenergizing of transmission and distribution lines and equipment for the purpose of protecting employees. It provides general requirements (i.e., system operators - person in charge, no system operator, single crews, multiple crews, disconnecting means accessible to general public) and deenergizing lines and equipment (i.e., request to deenergize, open disconnecting means, switches, network protectors, tags, test for energized condition, grounds, clearances, reenergizing lines).

1926.961—Deenergizing lines and equipment for employee protection.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard applies to grounding of transmission and distribution lines and equipment for the purpose of protecting employees. It provides the requirements pertaining to proper grounding, when grounding is impractical (i.e., requires deenergization, no contact with another energized source, no

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induced voltage), equipotential zone, protective grounding equipment, testing, connecting and removing grounds, additional precautions, and removal of grounds for testing.

1926.962—Grounding for the protection of employees.

Do employees perform testing at test facilities? Yes / No / Unsure

The following standard provides requirements pertaining to safe work practices for high-voltage and high-power testing performed in laboratories, shops, and substations, and in the field and on electric transmission and distribution lines and equipment.

It applies only to testing involving interim measurements using high voltage, high power, or combinations of high voltage and high power, and not to testing involving continuous measurements as in routine metering, relaying, and normal line work.

OSHA considers routine inspection and maintenance measurements made by qualified employees to be routine line work not included in the scope of this section, provided that the hazards related to the use of intrinsic high voltage or high-power sources require only the normal precautions associated with routine work specified in the other paragraphs of this subpart. Two typical examples of such excluded test work procedures are "phasing-out" testing and testing for a "no-voltage" condition.

<u>Qualified employee (qualified person)</u> - An employee (person) knowledgeable in the construction and operation of the electric power generation, transmission, and distribution equipment involved, along with the associated hazards.

<u>1926.963</u>—Testing and test facilities.

Are employees doing live-line barehand work? Yes / No / Unsure

The following standard provides additional requirements for work performed on or near overhead lines and equipment and for live-line barehand work.

<u>Paragraph (b)</u> provides the requirements pertaining to checking structure before climbing, setting and moving poles, and installing and removing overhead lines (i.e., load ratings, communications, safe operating condition).

<u>Paragraph (c)</u> provides the requirements for live-line barehand work. It includes requirements for training [Reference 1926.950—<u>general</u>, <u>paragraph (b)</u>], and requirements pertaining to insulated tools and equipment, existing conditions, disabling automatic-reclosing feature, adverse weather conditions, bucket liners and electrostatic shielding, bonding the employee, controls, body of aerial lift trucks, boomcurrent tests, minimum approach distances, handlines, passing objects, nonconductive measuring devices, towers and structures, tag lines, load lines, and adverse weather conditions.

<u>Minimum approach distance</u> - The closest distance an employee may approach an energized or a grounded object.

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Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard provides requirements for accessing manholes and subsurface vaults, lowering equipment into manholes, using attendants for manholes and vaults (i.e., first aid training, brief entries) and entries without attendants. It also provides requirements pertaining to duct rods, multiple cables, moving cables, and protection against faults.

<u>1926.965</u>—Underground electrical installations.

Do you have substations or do employees work in them? Yes / No / Unsure

The following standard provides additional requirements for substations and for work performed in them. It includes requirements pertaining to access and working space, draw-out-type circuit breakers, substation fences, guarding of rooms and other spaces containing electric supply equipment (i.e., warning signs, preventing access, restricted entry, entrances), guarding of energized parts (i.e., types of guarding, maintaining guards, removal of guards), and substation entry (i.e., report upon entering, job briefing). It also references consensus standards.

1926.966—Substations.

Do employees work on electric power transmission and distribution lines and/or equipment? Yes / No / Unsure

The following standard applies to capacitors, current transformer secondaries, series streetlighting, illumination, protection against drowning (i.e., flotation devices, crossing bodies of water), excavations, employee protection in public work areas (i.e., traffic control devices, barricades, warning lights, excavated areas), backfeed, lasers, hydraulic fluids, and communication facilities (i.e., microwave transmission, power-line carrier).

<u>1926.967</u>—Special conditions.

SUBPART V APPENDICES:

Subpart V, appendix B pertains to working on exposed energized parts.

Subpart V, appendix C pertains to protection from hazardous differences in electric potential.

Subpart V, appendix D pertains to methods of inspecting and testing wood poles.

Subpart V, appendix E pertains to protection from flames and electric arcs.

Subpart V, appendix F pertains to work-positioning equipment inspection guidelines.

Subpart V, appendix G pertains to consensus standards.

SUBPART V REFERENCES:

Competent person

Confined spaces

Cranes and derricks

Electrical safety

Electric power generation, transmission and distribution

Medical services and first aid

Personal protective equipment

Stairways and ladders

Subpart W—Rollover Protective Structures; Overhead Protection

Does "Subpart W—Rollover Protective Structures; Overhead Protection" apply to you?

This subpart contains the standards for rollover protective structures for material handling equipment used in construction. It also contains standards for overhead protection for operators of agricultural and industrial tractors.

Note: References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do your employees use wheel-type agricultural tractors, industrial tractors or material handling equipment? Yes / No / Unsure

The following standard applies to all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments, that are used in construction work.

This requirement does not apply to sideboom pipe laying tractors. It provides requirements pertaining to the manufacturer dates for material handling machinery in relation to being equipped with rollover protective structures that meet minimum performance standards 1926.1001—minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders, and crawler tractors and 1926.1002—protective frames (roll-over protective structures, known as ROPS) for wheel-type agricultural and industrial tractors used in construction, as applicable. This standard also provides requirements for remounting, labeling, and machines meeting existing governmental requirements.

1926.1000—Rollover protective structures (ROPS) for material handling equipment.

Do your employees use wheel-type agricultural tractors, industrial tractors or material handling equipment? Yes / No / Unsure

The following standard prescribes minimum performance criteria for rollover protective structures (ROPS) for rubber-tired self-propelled scrapers; rubber-tired front-end loaders and rubber-tired dozers; crawler tractors, and crawler-type loaders, and motor graders. It provides requirements pertaining to static laboratory tests, facilities and apparatus, vehicle conditions, test procedures, performance requirements, definitions, and source of the standard (i.e., consensus standards).

<u>1926.1001</u>—Minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders, and crawler tractors.

Do your employees use wheel-type agricultural tractors, industrial tractors or material handling equipment? Yes / No / Unsure

The following standard sets forth requirements for frames used to protect operators of wheel-type agricultural and industrial tractors that will minimize the possibility of operator injury resulting from accidental upsets during normal operation. With respect to agricultural and industrial tractors, the provisions of 1926.1001—minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders and 1926.1003—overhead protection for operators of agricultural and industrial tractors for rubber-tired dozers and rubber-tired loaders may be used instead of the requirements of this standard.

<u>1926.1002</u>—Protective frames (roll-over protective structures, known as (ROPS) for wheel-type agricultural and industrial tractors used in construction.

Do your employees use wheel-type agricultural tractors, industrial tractors, or material handling equipment? Yes / No / Unsure

The following standard states that the provisions of 1926.1001—minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders for rubber-tired dozers and rubber-tired loaders may be used instead of the requirements of this standard. This standard applies to wheel-type agricultural and industrial tractors used in construction work [Reference 1926.1002—see protective frames (roll-over protective structures, known as ROPS) for wheel-type agricultural and industrial tractors used in construction, paragraph (b) and (j)]. In the case of machines to which 1926.604—site clearing also applies, the overhead protection may be either the type of protection provided in that standard, or the type of protection provided by this standard. It provides the requirements for overhead protection (i.e., material, not be a hazard), general test procedures, drop test procedures, crush test procedures, performance requirements, and the standard source (i.e., consensus standards).

1926.1003—Overhead protection for operators of agricultural and industrial tractors.

SUBPART W REFERENCES:

Materials handling and storage

Subpart X—Stairways and Ladders

Does "Subpart X—Stairways and Ladders" apply to you?

This subpart contains the standards for stairways and ladders used in construction, alteration, repair (including painting and decorating), and demolition workplaces. Additional requirements for ladders used on or with scaffolds are contained in subpart L—scaffolds. subpart CC—cranes and derricks exclusively sets forth the circumstances when ladders and stairways must be provided on equipment covered by subpart CC.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do employees use stairways and/or ladders during construction work? Yes / No / Unsure

The following standard provides the scope, application, and definitions. It states that additional requirements for ladders used on or with scaffolds are contained in subpart L—scaffolds. This subpart does not apply to integral components of equipment covered by subpart CC—cranes and derricks as subpart CC exclusively sets forth the circumstances when ladders and stairways must be provided on cranes and derricks.

<u>1926.1050</u>—Scope, application, and definitions applicable to this subpart.

Do employees use stairways and/or ladders during construction work? Yes / No / Unsure

The following standard provides requirements for stairways or ladders to be provided at personnel points of access, not using spiral stairways that are not a permanent part of the structure, use of double-cleated ladders, keeping points of access clear, and using stairway and ladder fall protection systems.

1926.1051—General requirements.

Are employees using stairways during construction work? Yes / No / Unsure

It provides general requirements (i.e., landings, horizontal degrees, riser height, tread depth, hazardous projections, slippery conditions), and those pertaining to temporary service. It also provides specific requirements for stairrails and handrails along with following the criteria for guardrail systems for unprotected sides and edges for stairway landings found in subpart M—fall protection. Also reference 1926.1060—training requirements.

1926.1052—Stairways.

Are employees using ladders during construction work? Yes / No / Unsure

The following standard applies to all ladders including job-made ladders. It provides general requirements (i.e., including metal, wood, extension, self-supporting, not self-supporting, portable, fixed) pertaining to supporting the load, maximum intended loads, clearance distances, ladder components, warning labels, coatings, splicing, ladder safety devices, rest platforms, self-retracting lifelines, cages and wells, being free of projections, side rails, and rungs and steps. It also provides the requirements regarding use including extending three feet above upper landing surface, being free of slipping hazards, maximum intended loads, used only for intended design or purpose, angle of use, having slip-resistant feet, top and bottom of ladder kept clear, having non-conductive siderails, inspections conducted by competent person, not using defective ladders (i.e., withdrawing from service, tagging, repair), ascending and descending ladders (i.e., facing the ladder, keeping one hand on ladder), and carrying loads on ladder. Also reference 1926.1060—training requirements.

1926.1053—Ladders.

Do employees use stairways and/or ladders during construction work? Yes / No / Unsure

The following standard provides for a training program for each employee using ladders and stairways to ensure employees are able to recognize hazards related to ladders and stairways. It requires training by a competent person on procedures to be followed, specific training topics, and when retraining is required.

1926.1060—Training requirements.

SUBPART X APPENDICES:

Subpart X, appendix A for this subpart provides consensus standards related to ladders.

SUBPART X REFERENCES:

Competent person

Cranes and derricks

Fall protection

Illumination

Scaffolds

Stairways and ladders

Subpart Y—Commercial Diving Operations

Does "Subpart Y—Commercial Diving Operations" apply to you?

This subpart provides the standards for commercial diving operations and related support operations. This standard does not apply to any diving operation: Performed solely for instructional purposes, using open-circuit, compressed-air SCUBA and conducted within the no-decompression limits; Performed solely for search, rescue, or related public safety purposes by or under the control of a governmental agency; or Governed by 45 CFR Part 46 (Protection of Human Subjects, U.S. Department of Health and Human Services) or equivalent rules or regulations established by another federal agency, which regulate research, development, or related purposes involving human subjects.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section. Additionally, the requirements applicable to construction work are identical to the standards found in general industry, subpart T, for commercial diving operations.

<u>Scientific diving</u> - Means diving performed solely as a necessary part of a scientific, research, or educational activity by employees whose sole purpose for diving is to perform scientific research tasks. Scientific diving does not include performing any tasks usually associated with commercial diving such as: Placing or removing heavy objects underwater; inspection of pipelines and similar objects; construction; demolition; cutting or welding; or the use of explosives.

<u>Recreational diving instruction</u> - Means training diving students in the use of recreational diving procedures and the safe operation of diving equipment, including an open-circuit, semi-closed-circuit, or closed-circuit self-contained underwater breathing apparatus, during dives.

Yes / No / Unsure If yes, please continue.

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides the scope and application for this subpart.

<u>1926.1071</u>—Scope and application (*References general industry standard*, <u>1910.401</u>—Scope and application).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides the definitions for this subpart.

1926.1072—Definitions (References general industry standard, 1910.402—Definitions).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard includes requirements pertaining to the dive team regarding experience and training (i.e., tools, equipment, diving techniques, emergency procedures, first aid and CPR) and assignments (i.e., tasks, hyperbaric conditions) and designated person-in-charge.

<u>1926.1076</u>—Qualifications of dive team (*References general industry standard*, <u>1910.410</u>— *Qualifications of dive team*).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard covers the requirements for a written safe practices manual including having it available, contain copy of the standard, safety procedures, assignments and responsibilities, equipment procedures and checklists and emergency procedures.

<u>1926.1080</u>—Safe practices manual (*References general industry standard*, <u>1910.420</u>—Safe practices manual).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard includes requirements for emergency aid, first aid supplies, planning and assessment, employee briefings, equipment inspections, warning signals.

<u>1926.1081</u>—Pre-dive procedures (References general industry standard, <u>1910.421</u>—Pre-dive procedures).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides requirements pertaining to water entry and exit, communications, decompression tables, dive profiles, hand-held electrical tools and equipment, welding and burning, explosives, and termination of the dive.

<u>1926.1082</u>—Procedures during dive (*References general industry standard*, <u>1910.422</u>—Procedures during dive).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides requirements pertaining to precautions (i.e., instructions, hazard alerts, condition of diver), recompression capability, record of dive, and decompression procedure assessments.

<u>1926.1083</u>—Post-dive procedures (*References general industry standard*, <u>1910.423</u>—Post-dive procedures).

Does diving operations involve SCUBA diving? Yes / No / Unsure

The following standard provides specific requirements for SCUBA diving such as limits (i.e., depths, confining spaces) and procedures (i.e., standby diver, working in confined spaces, breathing gas supply, reserve cylinders).

<u>SCUBA diving</u> - A diving mode independent of surface supply in which the diver uses open circuit self-contained underwater breathing apparatus.

1926.1084—SCUBA diving (References general industry standard, 1910.424—SCUBA diving).

Does diving operations involve using surface-supplied air? Yes / No / Unsure

The following standard provides the requirements for limits (i.e., depths, use of bell) and other specific procedures (i.e., gas supply, tending divers, extra gas hose).

<u>Surface-supplied air diving</u> - A diving mode in which the diver in the water is supplied from the dive location with compressed air for breathing.

<u>1926.1085</u>—Surface-supplied air diving (*References general industry standard*, <u>1910.425</u>—Surface-supplied air diving).

Does diving operations involve using mixed-gas? Yes / No / Unsure

The following standard provides the requirements for limits (i.e., use of decompression chamber, bell use) and other specific procedures (i.e., tending divers, standby divers, use of heavy gear, diving depths).

<u>Mixed-gas diving</u> - A diving mode in which the diver is supplied in the water with a breathing gas other than air.

1926.1086—Mixed-gas diving (References general industry standard, 1910.426—Mixed-gas diving).

Does diving operations involve liveboating? Yes / No / Unsure

The following standard provides specific requirements for liveboating including limits (i.e., other than daylight hours, rough seas) and other specific procedures (i.e., communication, standby diver).

<u>Liveboating</u> - The practice of supporting a surfaced-supplied air or mixed gas diver from a vessel which is underway.

1926.1087—Liveboating (References general industry standard, 1910.427—Liveboating).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides the requirements pertaining to air compressor systems, breathing gas supply hoses, buoyancy control, compressed gas cylinders, decompression chambers, gauges and timekeeping devices, masks and helmets, oxygen safety, and weights and harnesses.

1926.1090—Equipment (References general industry standard, 1910.430—Equipment).

Do employees conduct commercial diving operations? Yes / No / Unsure

The following standard provides requirements for recording the occurrence of any diving-related injury or illness which requires any dive team member to be hospitalized for 24 hours or more, specifying the circumstances of the incident and the extent of any injuries or illnesses, availability of records (i.e., retention periods) and references the general industry standard, 1910.1020—access to employee exposure and medical records.

<u>1926.1091</u>—Recordkeeping requirements (*References general industry standard*, <u>1910.440</u>—*Recordkeeping requirements*).

SUBPART Y APPENDICES (References Part 1910, Subpart T—Commercial diving operations):

Subpart T, <u>appendix A</u> provides examples of conditions which may restrict or limit exposure to hyperbaric conditions.

Subpart T, appendix B provides examples of conditions which may restrict or limit exposure to hyperbaric conditions.

Subpart T, appendix C provides alternative conditions under $\underline{1910.401(a)(3)}$ for recreational diving instructors and diving guides (mandatory).

SUBPART Y REFERENCES (References Part 1910, <u>Subpart T</u>—Commercial diving operations):

Commercial diving

Compressed air and compressed air equipment

Compressed gases

Confined spaces

Employee exposure and medical records

Explosives

Medical services and first aid,

Recording and reporting

Welding and cutting

Subpart Z—Toxic and Hazardous Substances

Does "Subpart Z—Toxic and Hazardous Substances" apply to you?

This subpart provides the standards for air contaminants, and the following health hazards: asbestos, coal, tar pitch volatiles; interpretation of term, 13 carcinogens (e.g., 4-Nitrobiphenyl, alpha-Naphthylamine, chloromethyl ether, 3,3'-Dichlorobenzidine (and its salts), bis-Chloromethyl ether, beta-Naphthylamine, Benzidine, 4-Aminodiphenyl, Ethyleneimine, beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylaminoazo-benzene, and N-Nitrosodimethylamine), vinyl chloride, inorganic arsenic, beryllium, chromium (VI), cadmium, benzene, 1,2-dibromo-3-chloropropane, acrylonitrile, ethylene oxide, formaldehyde, methylene chloride, and respirable crystalline silica.

Note. Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do your employees have occupational exposure to asbestos? Yes / No / Unsure

The following standard regulates asbestos exposure in all 1910.12—<u>construction work</u>, paragraph (c), including but not limited to the following:

- Demolition or salvage of structures where asbestos is present;
- Removal or encapsulation of materials containing asbestos;
- Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos;
- *Installation of products containing asbestos;*
- Asbestos spill/emergency cleanup; and
- Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed.

Coverage under this standard is based on the nature of the work operation involving asbestos exposure. It does not apply to asbestos-containing asphalt roof coatings, cements and mastics.

The standard provides the requirements pertaining to permissible exposure limits (PELs), multi-employer worksites, regulated areas, exposure assessments and monitoring, methods of compliance (i.e., engineering controls, work practice controls), respirator program (References general industry 1910.134—respiratory protection), protective clothing, hygiene facilities and practices for employees (References general industry standard, 1910.141—sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), signs and labels, employee information and training, housekeeping, medical surveillance, recordkeeping (References general industry standard 1910.1020—access to employee exposure and medical records), and competent person.

<u>Asbestos</u> - Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered.

<u>Asbestos-containing material (ACM)</u> - Any material containing more than one percent asbestos.

1926.1101—Asbestos.

Do you have employees that have occupational exposure to coal tar pitch volatiles? Yes / No / Unsure

The following standard states "As used in 1910.1000 (Table Z-1), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the "coal tar pitch volatiles" standard."

<u>1926.1102</u>—Coal tar pitch volatiles; interpretation of term (*References general industry standard*, <u>1910.1002</u>—Coal tar pitch volatiles; interpretation of term).

Do your employees have occupational exposure to one of the 13 carcinogens? Yes / No / Unsure

The following standard applies to any area in which the 13 carcinogens (e.g., 4-Nitrobiphenyl, alpha-Naphthylamine, chloromethyl ether, 3,3'-Dichlorobenzidine (and its salts), bis-Chloromethyl ether, beta-Naphthylamine, Benzidine, 4-Aminodiphenyl, Ethyleneimine, beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylaminoazo-benzene, and N-Nitrosodimethylamine) are manufactured, processed, repackaged, released, handled, or stored, but does not apply to transshipment in sealed containers, except for the labeling requirements.

The 13 carcinogens standard does not apply to the following:

- Solid or liquid mixtures containing less than 0.1 percent by weight or volume of 4-Nitrobiphenyl; methyl chloromethyl ether; bis-chloromethyl ether; beta-Naphthylamine; benzidine or 4-Aminodiphenyl; and
- Solid or liquid mixtures containing less than 1.0 percent by weight or volume of alpha-Naphthylamine; 3,3'-Dichlorobenzidine (and its salts); Ethyleneimine; beta-Propiolactone; 2-Acetylaminofluorene; 4-Dimethylaminoazobenzene, or N-Nitrosodimethylamine.

This standard provides the requirements for regulated areas, respirator program (References general industry standard, 1910.134—<u>respiratory protection</u> standard), contamination control, medical surveillance, hygiene facilities and practices (References general industry standard, 1910.141—<u>sanitation</u> standard), hazard communication program (References general industry standard, 1910.1200—<u>hazard communication</u> standard), signs and labels, training and education, and records (References general industry standard, 1910.1020—<u>access to employee exposure and medical records</u>).

<u>1926.1103</u>—13 Carcinogens (4-Nitrobiphenyl, etc.) (*References general industry standard*, <u>1910.1003</u>—13 Carcinogens).

<u>1926.1104</u>—alpha-Naphthylamine (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1106</u>—Methyl chloromethyl ether (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1107</u>—3.3'-Dichlorobenzidine (and its salts) (*References general industry standard*, 1910.1003—13 Carcinogens).

<u>1926.1108</u>—bis-Chloromethyl ether (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1109</u>—beta-Naphthylamine (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1110</u>—Benzidine (References general industry standard, <u>1910.1003</u>—13 Carcinogens).

<u>1926.1111</u>—4-Aminodiphenyl (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1112</u>—Ethyleneimine (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1113</u>—beta-Propiolactone (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1114</u>—2-Acetylaminofluorene (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

<u>1926.1115</u>—4-Dimethylaminoazobenzene (*References general industry standard*, <u>1910.1003</u>—13 Carcinogens).

<u>1926.1116</u>—N-Nitrosodimethylamine (*References general industry standard*, <u>1910.1003</u>—13 *Carcinogens*).

Do your employees have occupational exposure to vinyl chloride? Yes / No / Unsure

The following standard provides the requirements for the control of employee exposure to vinyl chloride (chloroethene). It applies to the manufacture, reaction, packaging, repackaging, storage, handling or use of vinyl chloride or polyvinyl chloride, but does not apply to the handling or use of fabricated products made of polyvinyl chloride. The standard also applies to the transportation of vinyl chloride or polyvinyl chloride except to the extent that the Department of Transportation may regulate them.

This standard provides the permissible exposure limit (PEL) along with requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, personal protective controls), respirator program (References general industry standard, 1910.134—respiratory protection), hazardous operations, emergency situations, training, medical surveillance, hazard communication program (References general industry standard, 1910.1200—hazard communication), signs and labels, and records (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>Vinyl chloride</u> - Means vinyl chloride monomer.

<u>1926.1117</u>—Vinyl chloride (*References general industry standard*, <u>1910.1017</u>—Vinyl chloride).

Do your employees have occupational exposure to inorganic arsenic? Yes / No / Unsure

The following standard applies to all occupational exposures to inorganic arsenic. This standard does not apply to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood.

This standard provides the permissible exposure limit along with requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance plan), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment (References general industry standard, 1910.133—eye and face protection), signs and labels, hygiene facilities and practices (References general industry standard, 1910.141—sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), medical surveillance, information and training, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>Inorganic arsenic</u> - Means copper aceto-arsenite and all inorganic compounds containing arsenic except arsine, measured as arsenic (As).

1926.1118—Inorganic arsenic (References general industry standard, 1910.1018—Inorganic arsenic).

Do your employees have occupational exposure to beryllium? Yes / No / Unsure

The following standard applies to occupational exposure to beryllium in all forms, compounds, and mixtures in construction. It does not apply to:

- Articles, as defined in general industry standard, 1910.1200—<u>hazard communication</u> <u>standard</u> (HCS) that contain beryllium and that the employer does not process.
- Materials containing less than 0.1% beryllium by weight where the employer has objective data demonstrating that employee exposure to beryllium will remain below the action level as an 8-hour TWA under any foreseeable conditions.

This standard provides the permissible exposure limit (PEL) and requirements for exposure assessments, exposure monitoring, methods of compliance (i.e., written exposure control plan, engineering controls,

work practice controls), respirator program (References general industry standard, 1910.134—
respiratory protection), personal protective clothing and equipment (Reference subpart E—personal protective and life saving equipment), hygiene areas and practices (References general industry standard, 1910.141—sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), signs and labels, housekeeping, medical surveillance, medical removal, information and training, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>1926.1124</u>—Beryllium

Do your employees have occupational exposure to cadmium? Yes / No / Unsure

The following standard applies to all construction work where an employee may potentially be exposed to cadmium. Construction work is defined as work involving construction, alteration and/or repair, including but not limited to the following:

- Wrecking, demolition, or salvage of structures where cadmium or materials containing cadmium are present;
- Use of cadmium containing-paints and cutting, brazing, burning, grinding or welding on surfaces that were painted with cadmium-containing paints;
- Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain cadmium, or materials containing cadmium;
- Cadmium welding; cutting and welding cadmium-plated steel; brazing or welding with cadmium alloys;
- Installation of products containing cadmium;
- Electrical grounding with cadmium welding, or electrical work using cadmium-coated conduit;
- Maintaining or retrofitting cadmium-coated equipment;
- Cadmium contamination/emergency cleanup; and
- Transportation, disposal, storage, or containment of cadmium or materials containing cadmium on the site or location at which construction activities are performed.

This standard provides the permissible exposure limit (PEL) and the requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (References general industry standard, 1910.134—respiratory protection), emergency situations, protective work clothing and equipment (References general industry standard, 1910.133—eye and face protection), hygiene areas and practices (References general industry standard, 1910.141—sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), housekeeping, signs and labels, medical surveillance, employee information and training, observation of monitoring, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

1926.1127—Cadmium.

Do your employees have occupational exposure to benzene? Yes / No / Unsure

The following standard applies to all occupational exposures to benzene. This standard does not apply to:

- The storage, transportation, distribution, dispensing, sale or use of gasoline, motor fuels, or other fuels containing benzene subsequent to its final discharge from bulk wholesale storage facilities, except that operations where gasoline or motor fuels are dispensed for more than 4 hours per day in an indoor location are covered by this standard.
- Loading and unloading operations at bulk wholesale storage facilities which use vapor control systems for all loading and unloading operations, except for the provisions of 1910.1200— hazard.communication as incorporated into this standard and the emergency provisions of this standard.
- The storage, transportation, distribution or sale of benzene or liquid mixtures containing more than 0.1 percent benzene in intact containers or in transportation pipelines while sealed in such a manner as to contain benzene vapors or liquid, except for the provisions of 1910.1200—hazard communication as incorporated into this section and the emergency provisions of this standard.
- Containers and pipelines carrying mixtures with less than 0.1 percent benzene and natural gas processing plants processing gas with less than 0.1 percent benzene.
- Work operations where the only exposure to benzene is from liquid mixtures containing 0.1 percent or less of benzene by volume or the vapors released from such liquids after September 12, 1989; except that tire building machine operators using solvents with more than 0.1 percent benzene are covered by this standard.
- *Oil and gas drilling, production and servicing operations.*
- *Coke oven batteries.*

This standard provides the permissible exposure limit (PEL) along with other requirements such as regulated areas, exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment (References general industry standard, 1910.133—eye and face protection), hygiene facilities and practices (References general industry standard, 1910.141—sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), medical surveillance, information and training, signs and labels, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>Benzene</u> (C_6H_6) (CAS Registry No. 71-43-2) - Means liquefied or gaseous benzene. It includes benzene contained in liquid mixtures and the benzene vapors released by these liquids. It does not include trace amounts of unreacted benzene contained in solid materials.

<u>1926.1128</u>—Benzene *References general industry standard*, <u>1910.1028</u>—Benzene).

Do your employees have occupational exposure to 1,2-dibromo-3-chloropropane? Yes / No / Unsure

The following standard applies to occupational exposure to 1,2-dibromo-3-chloropropane (DBCP). It does not apply to:

- Exposure to DBCP which results solely from the application and use of DBCP as a pesticide; or
- The storage, transportation, distribution or sale of DBCP in intact containers sealed in such a manner as to prevent exposure to DBCP vapors or liquid, except for emergency requirements, employee information and training, and communication of hazards required by the standard.

It provides the permissible exposure limit and requirements pertaining to regulated areas, exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), emergency situations (i.e., written plan), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment (References general industry standard, 1910.133—eye and face protection), hygiene facilities and practices (References general industry standard, 1910.141—sanitation), housekeeping, hazard communication program (References general industry standard, 1910.1200—hazard communication), medical surveillance, information and training, signs and labels, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>DBCP</u> - Means 1,2-dibromo-3-chloropropane, Chemical Abstracts Service Registry Number 96-12-8, and includes all forms of DBCP.

<u>1926.1144</u>—1,2-dibromo-3-chloropropane (*References general industry standard*, <u>1910.1044</u>—1,2-dibromo-3-chloropropane).

Do your employees have occupational exposure to acrylonitrile? Yes / No / Unsure

The following standard applies to all occupational exposures to acrylonitrile (AN). It does not apply to exposures which result solely from the processing, use, and handling of the following materials:

- ABS resins, SAN resins, nitrile barrier resins, solid nitrile elastomers, and acrylic and modacrylic fibers, when these listed materials are in the form of finished polymers, and products fabricated from such finished polymers;
- Materials made from and/or containing AN for which objective data is reasonably relied upon to demonstrate that the material is not capable of releasing AN in airborne concentrations in excess of 1 ppm as an eight (8)-hour time-weighted average, under the expected conditions of processing, use, and handling which will cause the greatest possible release; and
- Solid materials made from and/or containing AN which will not be heated above 170 deg. F during handling, use, or processing.

Note: An employer relying upon exemption shall maintain records of the objective data supporting that exemption, and of the basis of the employer's reliance on the data.

This standard provides the permissible exposure limits and the requirements pertaining to exposure monitoring, medical surveillance, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (References general industry standard, 1910.134—respiratory protection), protective work clothing and equipment (References general industry standards, 1910.133—eye and face protection and 1910.132—general requirements),

hygiene facilities and practices (References general industry standard, 1910.141—<u>sanitation</u>), hazard communication program (References general industry standard, 1910.1200—<u>hazard communication</u>), information and training, emergency situations (i.e., written plan), training, signs and labels, housekeeping, and recordkeeping (References general industry standard, 1910.1020—<u>access to employee exposure and medical records</u>).

<u>Acrylonitrile or AN</u> - Means acrylonitrile monomer, chemical formula CH(2) = CHCN.

1926.1145—Acrylonitrile (References general industry standard, 1910.1045—Acrylonitrile).

Do your employees have occupational exposure to ethylene oxide? Yes / No / Unsure

The following standard applies to all occupational exposures to ethylene oxide (EtO). It does not apply to:

• The processing, use, or handling of products containing EtO where objective data are reasonably relied upon that demonstrate that the product is not capable of releasing EtO in airborne concentrations at or above the action level under the expected conditions of processing, use, or handling that will cause the greatest possible release.

It provides the permissible exposure limit and requirements pertaining to exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (References general industry standard, 1910.134—respiratory protection), personal protective equipment (References general industry standards, 1910.133—eye and face protection and 1910.132—general requirements), hygiene facilities and practices (References general industry standard, sanitation), hazard communication program (References general industry standard, 1910.1200—hazard communication), information and training, emergency situations (Reference 1910.38—emergency action plans and 1910.39—fire prevention plans), medical surveillance, training, signs and labels, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

1926.1147—Ethylene oxide (References general industry standard, 1910.1047—Ethylene oxide).

Do your employees have occupational exposure to formaldehyde? Yes / No / Unsure

The following standard applies to all occupational exposures to formaldehyde (i.e., from formaldehyde gas, its solutions, and materials that release formaldehyde). It provides the permissible exposure limit and requirements pertaining to the permissible exposure limit, exposure monitoring, regulated areas, signs and labels, methods of compliance (i.e., engineering controls, work practice controls), respirator program (References general industry standard, 1910.134—respiratory protection), personal protective equipment (References general industry standards, 1910.133—eye and face protection and 1910.132—general requirements), emergency situations, hygiene protection (References general industry standard, 1910.141—sanitation standard), housekeeping, hazard communication program (References general industry standard, 1910.1200—hazard communication), information and training, emergency procedures, medical surveillance, training, signs and labels, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

Do your employees have occupational exposure to methylene chloride? Yes / No / Unsure

The following standard applies to all occupational exposures to methylene chloride (MC) in general industry, construction and shipyard employment. It provides the permissible exposure limit and requirements pertaining to exposure monitoring, methods of compliance [i.e., engineering controls, work practice controls, incidental leaks - reference general industry standard, 1910.120—<u>HAZWOPER</u>, paragraph (q)], respirator program (References general industry standard, 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (References general industry standard, 1910.133—<u>eye and face protection</u>), hygiene facilities, hazard communication program (References general industry standard, 1910.1200—<u>hazard communication</u>), information and training, labels, medical surveillance, and recordkeeping (References general industry standard, 1910.1020—<u>access to employee</u> exposure and medical records).

<u>1926.1152</u>—Methylene Chloride (*References general industry standard*, <u>1910.1052</u>—Methylene chloride).

Do your employees have occupational exposure to respirable crystalline silica? Yes / No / Unsure

The following standard applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air (25 µg/m³) as an 8-hour time-weighted average (TWA) under any foreseeable conditions. This standard provides the requirements pertaining to specified exposure control methods. It also provides alternative exposure control methods including the permissible exposure limit and requirements pertaining to an exposure assessment, methods of compliance (i.e., engineering and work practice controls, ventilation), respirator program (References general industry standard, 1910.134—respiratory protection), housekeeping, written exposure control plan, medical surveillance, hazard communication program (References general industry standard, 1910.1200—hazard communication), information and training, and recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records).

<u>Respirable crystalline silica</u> - Means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.

<u>1926.1153</u>—Respirable Crystalline Silica.

SUBPART Z APPENDICES:

Asbestos:

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1926,1101, <u>appendix A</u> provides the procedure for analyzing air samples for asbestos and specifies quality control procedures that must be implemented by laboratories performing the analysis.

1926.1101, <u>appendix B</u> provides detailed procedures for asbestos sampling and analysis.

1926.1101, appendix D provides the medical questionnaires.

1926.1101, appendix E provides the interpretation and classification of chest roentgenogram.

1926.1101, appendix F provides work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair and assembly.

1926.1101, appendix H provides substance technical information for asbestos.

1926.1101, <u>appendix I</u> provides medical surveillance guidelines for asbestos.

1926.1101, <u>appendix J</u> provides the smoking cessation program information for asbestos.

1926.1101, appendix K pertains to polarized light microscopy of asbestos.

<u>Vinyl chloride (1926.1117</u> - References general industry standard, 1910.1017—<u>Vinyl chloride</u>):

1910.1017, appendix A provides supplemental medical information for vinyl chloride.

<u>Inorganic arsenic</u> (1926.1118 - References general industry standard, 1910.1018—<u>Inorganic arsenic</u>):

1910.1018, appendix A provides the inorganic arsenic substance information sheet.

1910.1018, appendix B provides the substance technical guidelines.

1910.1018, <u>appendix C</u> provides medical surveillance guidelines.

Cadmium:

1926.1127, appendix A provides the substance safety data sheet.

1926.1127, appendix B provides the substances technical guidelines for cadmium.

1926.1127, <u>appendix D</u> pertaining to occupational health history interview with reference to cadmium exposure.

1926.1127, <u>appendix E</u> provides cadmium in workplace atmospheres.

1926.1127, appendix F pertains to nonmandatory protocol for biological monitoring.

Benzene (1926.1128 - References general industry standard, 1910.1028—

Benzenehttps://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1028):

1910.1028, appendix A provides the substance safety data sheet.

1910.1028, appendix B provides the substance technical guidelines.

1910.1028, appendix C provides the medical surveillance guidelines.

1910.1028, <u>appendix D</u> provides the sampling and analytical methods for benzene monitoring and measurement procedures.

<u>1,2-dibromo-3-chloropropane</u> (<u>1926.1144</u> - References general industry standard, 1910.1044—<u>1,2-dibromo-3-chloropropane</u>):

1910.1044, appendix A provides the substance safety data sheet for DBCP.

1910.1044, appendix B provides the substance technical guidelines for DBCP.

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

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1910.1044, <u>appendix C</u> provides the Medical surveillance guidelines for DBCP.
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<u>Acrylonitrile</u> (1926.1145 - References general industry standard, 1910.1045—<u>Acrylonitrile</u>):

1910.1045, appendix A provides the substance safety data sheet.

1910.1045, appendix B provides the substance technical guidelines.

1910.1045, appendix C provides the medical surveillance guidelines.

1910.1045, <u>appendix D</u> provides the sampling and analytical methods.

Ethylene oxide (1926.1147 - References general industry standard, 1910.1047—Ethylene oxide):

1910.1047, appendix A provides the substance safety data sheet.

1910.1047, appendix B provides the substance technical guidelines.

1910.1047, appendix C provides the medical surveillance guidelines.

1910.1047, appendix D provides the sampling and analytical methods for ethylene oxide.

<u>Formaldehyde (1926.1148</u> -References general industry standard, 1910.1048—<u>Formaldehyde</u>):

1910.1048, appendix A provides the substance technical guidelines.

1910.1048, <u>appendix B</u> provides the sampling strategy and analytical methods.

1910.1048, appendix C pertains to medical surveillance.

1910.1048, appendix D provides the nonmandatory medical disease questionnaire.

<u>Methylene chloride</u>: (1926.1152 - References general industry standard, 1910.1052—<u>Methylene chloride</u>):

1910.1052, appendix A provides the substance safety data sheet and technical guidelines.

1910.1052, appendix B pertains to medical surveillance.

1910.1052, <u>appendix C</u> pertains to questions and answers for methylene chloride control in furniture stripping.

Silica:

1926.1153, appendix A provides the methods of sample analysis.

1926.1153, appendix B pertains to the medical surveillance guidelines.

SUBPART Z REFERENCES:

Acids and bases

<u>Asbestos</u>

Beryllium

Chemical hazards and toxic substances

Chromium VI

Emergency action plans

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Employee exposure and medical records

Eyewash stations and emergency showers

Fire prevention plans

Flammable liquids

Formaldehyde

Hazard communication

Hierarchy of controls

Medical services and first aid

Methylene chloride

Organic solvents

Personal protective equipment

Recording and reporting

Respiratory protection

Sanitation

<u>Silica</u>

Subpart AA—Confined Spaces in Construction

Does "Subpart AA—Confined Spaces in Construction" apply to you?

This subpart contains the standards for practices and procedures to protect employees engaged in construction activities at a worksite with one or more confined spaces.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. References applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees working in confined spaces? Yes / No / Unsure

The following standard provides the scope for this subpart. It provides examples of locations where confined spaces may occur include, but are not limited to, the following: Bins; boilers; pits (such as elevator, escalator, pump, valve or other equipment); manholes (such as sewer, storm drain, electrical, communication, or other utility); tanks (such as fuel, chemical, water, or other liquid, solid or gas); incinerators; scrubbers; concrete pier columns; sewers; transformer vaults; heating, ventilation, and airconditioning (HVAC) ducts; storm drains; water mains; precast concrete and other pre-formed manhole units; drilled shafts; enclosed beams; vessels; digesters; lift stations; cesspools; silos; air receivers; sludge gates; air preheaters; step up transformers; turbines; chillers; bag houses; and/or mixers/reactors.

This subpart does not apply to:

- Construction work regulated by subpart P—excavations.
- Construction work regulated by subpart S—<u>underground construction, caissons, cofferdams and compressed air.</u>
- Construction work regulated by subpart Y—commercial diving operations.

1926.1201—Scope.

Are employees working in confined spaces? Yes / No / Unsure

The following standard provides the definitions for this subpart.

<u>Confined space</u> - Means a space that:

- Is large enough and so configured that an employee can bodily enter it;
- Has limited or restricted means for entry and exit; and
- *Is not designed for continuous employee occupancy.*

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<u>Permit-required confined space</u> (permit space) - Means a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section; or
- Contains any other recognized serious safety or health hazard.

1926.1202—Definitions.

Are employees working in or around confined spaces? Yes / No / Unsure

The following standard includes general requirements for having a competent person evaluate all confined spaces and permit spaces. It also includes requirements pertaining to posting danger signs, preventing entry, written permit space program, alternate procedures (i.e., isolating/eliminating hazards through engineering controls, ventilation), reevaluation of spaces by competent person, entry communication and coordination, and multi-employer roles (Reference CPL 2-0.124 - multi-employer worksite policy).

<u>1926.1203</u>—General requirements.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard provides the requirements for the permit space program including preventing unauthorized entry, identifying and evaluating spaces, developing and implementing permit space entry operations, equipment provisions, evaluating permit space conditions, providing an outside attendant, identify roles (i.e., entrants, attendants, entry supervisors, monitors), rescue and emergency services, use of entry permits, procedures for entry operations, review of entry operations for deficiencies, and review of permit space program. Also reference 1926.56—illumination, and 1926.103—respiratory protection.

<u>1926.1204</u>—Permit-required confined space program.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard provides requirements pertaining to documented entry permits, signing permits by entry supervisor, posting entry permits, permit duration, terminating entry (i.e., canceling permits, suspending permits), and retention of canceled entry permits (one year).

1926.1205—Permitting process.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard provides the requirements for the permits including documentation for entry purpose, date of entry, authorized duration, acceptable entry conditions, monitoring results, rescue

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services, hazards present, communication procedures, equipment (i.e., personal protective equipment, testing equipment, communications equipment, alarms), safety measures, additional permits (i.e., hot work permits) and names of entrants, attendants, and entry supervisor.

<u>1926.1206</u>—Entry permit.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard requires that all employees involved in confined space entry are properly trained (i.e., possesses the understanding, knowledge, and skills necessary for the safe performance of the duties), and that the employer ensures employee proficiency. All training records are to be maintained for the period of time the employee is employed by the employer.

<u>1926.1207</u>—Training.

Are employees performing duties as an authorized entrant? Yes / No / Unsure

The following standard includes requirements pertaining to the entrant being familiar with the hazards faced during entry (i.e., mode, signs and symptoms of exposure), using of equipment, communication with attendants, when to alert attendant, and when to exit quickly (i.e., alarms, symptoms of exposure). Also reference 1926.1207—training.

<u>1926.1208</u>—Duties of authorized entrants.

Are employees performing duties as an authorized attendant? Yes / No / Unsure

The following standard provides the requirements for the attendant to be familiar with the hazards faced during entry (i.e., mode, signs and symptoms of exposure), behavioral effects of hazard exposure by entrants, maintaining accurate count of entrants, remaining outside entry, communication with entrants, assessing activities inside and outside space, when to summon rescue, taking action when unauthorized persona approach space, performance of non-entry rescue, and not performing any other duty other that attendant duty. Also reference 1926.1207—training.

1926.1209—Duties of attendants.

Are employees performing duties as an entry supervisor? Yes / No / Unsure

The following standard provides the requirements for the entry supervisor to be familiar with the hazards faced during entry (i.e., mode, signs and symptoms of exposure), procedures for endorsing permits, terminating or suspending permits, verification of rescue services, removal of unauthorized individuals from permit space area, and ensuring that acceptable entry conditions are maintained. Also reference 1926.1207—training.

<u>1926.1210</u>—Duties of entry supervisors.

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Are employees performing rescue or emergency services for permit spaces? Yes / No / Unsure

The following standard provides the requirements pertaining to evaluating a prospective rescuer's ability to respond to a rescue summons in a timely manner, proficiency in rescue-related tasks, properly trained in assigned rescue duties and has required equipment (i.e., personal protective equipment, annual training, first aid and CPR), rescue equipment (i.e., harness, retrieval line), safety data sheets, and requirements pertaining to non-entry rescue. Also reference 1926.1207—training.

1926.1211—Rescue and emergency services.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard provides the requirements for employee participation in the permit space program and making all the information available to them.

<u>1926.1212</u>—Employee participation.

Are your employees entering permit spaces? Yes / No / Unsure

The following standard requires that each document also be available to OSHA.

1926.1213—Provision of documents to secretary.

SUBPART AA REFERENCES:

Competent person

Confined spaces

Hazard communication

Illumination

Medical services and first aid

Personal protective equipment

Respiratory protection

Subpart CC—Cranes and Derricks in Construction

Does "Subpart CC—Cranes and Derricks in Construction" apply to you?

This subpart contains the standards for cranes and derricks used in construction.

Note: If this subpart applies to your workplace, then most of the standards within this subpart will apply. Appendices and references applicable to this subpart are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard provides the scope for this subpart. It applies to power-operated equipment, when used in construction, that can hoist, lower and horizontally move a suspended load. Such equipment includes, but is not limited to: Articulating cranes (such as knuckle-boom cranes); crawler cranes; floating cranes; cranes on barges; locomotive cranes; mobile cranes (such as wheel-mounted, roughterrain, all-terrain, commercial truck-mounted, and boom truck cranes); multi-purpose machines when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load; industrial cranes (such as carry-deck cranes); dedicated pile drivers; service/mechanic trucks with a hoisting device; a crane on a monorail; tower cranes (such as a fixed jib, i.e., "hammerhead boom"), luffing boom and self-erecting); pedestal cranes; portal cranes; overhead and gantry cranes; straddle cranes; sideboom cranes; derricks; and variations of such equipment.

Note: This standard applies to equipment listed above when used with attachments. Such attachments, whether crane-attached or suspended include, but are not limited to: Hooks, magnets, grapples, clamshell buckets, orange peel buckets, concrete buckets, drag lines, personnel platforms, augers or drills and pile driving equipment.

This subpart does not cover:

- Machinery (listed above) while it has been converted or adapted for a non-hoisting/lifting use. Such conversions/adaptations include, but are not limited to, power shovels, excavators and concrete pumps.
- Power shovels, excavators, wheel loaders, backhoes, loader backhoes, track loaders. This machinery is also excluded when used with chains, slings or other rigging to lift suspended loads.
- Automotive wreckers and tow trucks when used to clear wrecks and haul vehicles.
- Digger derricks when used for augering holes for poles carrying electric or telecommunication lines, placing and removing the poles, and for handling associated materials for installation on, or removal from, the poles, or when used for any other work covered by the subpart V—<u>electric power transmission and distribution</u>. Note: To be eligible for this exclusion, digger-derrick use in work subject to subpart V—<u>electric power transmission and distribution</u> must comply with all of the provisions of that subpart, and digger-derrick use in construction work for telecommunication service must comply with 1910.268—telecommunications.

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- Machinery originally designed as vehicle-mounted aerial devices (for lifting personnel) and self-propelled elevating work platforms.
- Telescopic/hydraulic gantry systems
- Stacker cranes
- Powered industrial trucks (forklifts), except when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load.
- Mechanic's truck with a hoisting device when used in activities related to equipment maintenance and repair.
- Machinery that hoists by using a come-a-long or chainfall.
- Dedicated drilling rigs
- Gin poles when used for the erection of communication towers.
- Tree trimming and tree removal work
- Anchor handling or dredge-related operations with a vessel or barge using an affixed A-frame
- Roustabouts
- Helicopter cranes
- Material delivery
 - Articulating/knuckle-boom truck cranes that deliver material to a construction site when used to transfer materials from the truck crane to the ground, without arranging the materials in a particular sequence for hoisting.
 - Articulating/knuckle-boom truck cranes that deliver material to a construction site when the crane is used to transfer building supply sheet goods or building supply packaged materials from the truck crane onto a structure, using a fork/cradle at the end of the boom, but only when the truck crane is equipped with a properly functioning automatic overload prevention device. Such sheet goods or packaged materials include but are not limited to: Sheets of sheet rock, sheets of plywood, bags of cement, sheets or packages of roofing shingles, and rolls of roofing felt.

Note: The exclusion for material delivery does not apply when:

- The articulating/knuckle-boom crane is used to hold, support or stabilize the material to facilitate a construction activity, such as holding material in place while it is attached to the structure;
- The material being handled by the articulating/knuckle-boom crane is a prefabricated component. Such prefabricated components include, but are not limited to: Precast concrete members or panels, roof trusses (wooden, cold-formed metal, steel, or other material), prefabricated building sections such as, but not limited to: Floor panels, wall panels, roof panels, roof structures, or similar items;
- The material being handled by the crane is a structural steel member (for example, steel joists, beams, columns, steel decking (bundled or unbundled) or a component of a systems-engineered metal building.

1926.1400—Scope.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1926.1401—Definitions.

Do employees assemble cranes or derricks? Yes / No / Unsure

The following standard provides requirements pertaining to ground conditions during assembly, having a controlling entity and no controlling entity for the project, and also states that this standard does not apply to cranes designed for use on railroad tracks when used on railroad tracks that are part of the general railroad system of transportation that is regulated pursuant to the Federal Railroad Administration under 49 CFR part 213 and that comply with applicable Federal Railroad Administration requirements.

<u>1926.1402</u>—Ground conditions.

Do employees assemble or disassemble cranes or derricks? Yes / No / Unsure

The following standard requires that the employer comply with all applicable manufacturer prohibitions and comply with either:

- Manufacturer procedures applicable to assembly and disassembly, or
- Employer procedures for assembly and disassembly. Employer procedures may be used only where the employer can demonstrate that the procedures used meet the requirements of 1926.1406—assembly/disassembly-employer procedures-general requirements.

The employer must follow manufacturer procedures when an employer uses synthetic slings during assembly or disassembly rigging [Reference 1926.1404—<u>assembly/disassembly--general requirements</u> (applies to all assembly and disassembly operations), <u>paragraph (r)</u>].

<u>Assembly/disassembly</u> - Means the assembly and/or disassembly of equipment covered under this standard. With regard to tower cranes, "erecting and climbing" replaces the term "assembly," and "dismantling" replaces the term "disassembly." Regardless of whether the crane is initially erected to its full height or is climbed in stages, the process of increasing the height of the crane is an erection process.

<u>1926.1403</u>—Assembly/disassembly--selection of manufacturer or employer procedures.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard provides the requirements pertaining to supervision by competent and qualified persons, knowledge of procedures by A/D director (assembly/disassembly), review of procedures, crew instructions, protecting assembly/disassembly crew members out of operator view, working under the boom, jib or other components, capacity limits, addressing specific hazards (i.e., site and ground bearing conditions, blocking material, proper location of blocking, center of gravity, boom and jib pick pints, snagging, struck by counterweights, wind speed and weather, boom hoist brake failure, assist crane

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loads, loss of backward stability), cantilevered boom sections, weight of components, components and configuration, shipping pins, pile driving, outriggers and stabilizers, and rigging.

<u>1926.1404</u>—Assembly/disassembly-general requirements (applies to all assembly and disassembly operations).

Are employees dismantling booms or jibs? Yes / No / Unsure

The following standard provides the requirements on dismantling (including dismantling for changing the length of) booms and jibs, specifically, related to the removal of pins (i.e., not removing pins partly or completely).

<u>1926.1405</u>—Disassembly - additional requirements for dismantling of booms and jibs (applies to both the use of manufacturer procedures and employer procedures).

Are you following employer procedures for assembly/disassembly versus using manufacturer procedures? Yes / No / Unsure

The following standard as it provides the requirements for when employer procedures are being used instead of the manufacturer procedures. It also provides the requirement for a qualified person to develop the procedures.

<u>1926.1406</u>—Assembly/disassembly - employer procedures - general requirements.

Are you doing assembly/disassembly around power lines (up to 350 kV)? Yes / No / Unsure

The following standard provides the requirements to follow one of the three options (i.e., deenergize and ground, 20-foot clearance, table A clearance) if any piece of equipment, load line or load could get within 20 feet of a power line during assembly/disassembly. It also provides requirements pertaining to preventing encroachment/electrocution, assembly/disassembly below power lines being prohibited, assembly/disassembly inside Table A clearance being prohibited, requesting voltage information, presuming power lines are energized and posting of electrocution warnings.

1926.1407—Power line safety (up to 350 kV)—assembly and disassembly.

Are equipment operations being conducted around power lines up to 350 kV? Yes / No / Unsure

The following standard requires hazard assessments and precautions inside the work zone, and requirements pertaining to preventing encroachment/electrocution, obtaining voltage information, operations below power lines, presuming power lines to be energized, working near transmitter/communication towers, training, and following manufacturer procedures for safety devices, operational aids, and other means for preventing power line contact or electrocution. It also contains Table A—Minimum Clearance Distances.

1926.1408—Power line safety (up to 350 kV)—equipment operations.

Are equipment operations being conducted around power lines over 350 kV? Yes / No / Unsure

The following standard requires compliance with 1926.1408—<u>power line safety (up to 350 kV)-equipment operations</u> and 1926.1407—<u>power line safety (up to 350 kV)--assembly and disassembly</u> except:

- For power lines at or below 1000 kV, wherever the distance \"20 feet\" is specified, the distance "50 feet" must be substituted; and
- For power lines over 1000 kV, the minimum clearance distance must be established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.

1926.1409—Power line safety (over 350 kV).

Are equipment operations closer than what is required in Table A—Minimum Clearance Distances? Yes / No / Unsure

The following standard provides requirements for when work must be conducted closer than the minimum approach distances provided in 1926.1408—power line safety (up to 350 kV)--equipment operations, paragraph (h), table A and that it is infeasible to deenergize and ground the power lines or relocate them.

It includes minimum clearance distances, planning meeting to discuss procedures, documenting procedures from the meeting, review of the procedures with employees, procedures must comply with the standard, training [Reference 1926.1408—power line safety (up to 350 kV)--equipment operations, paragraph (g)], and following manufacturer procedures for safety devices, operational aids, and other means for preventing power line contact or electrocution.

<u>1926.1410</u>—Power line safety (all voltages)—equipment operations closer than the Table A zone.

Is equipment traveling under or near power lines with no load? Yes / No / Unsure

The following standard establishes procedures and criteria that must be met for equipment traveling under or near a power line on a construction site with no load.

Equipment traveling on a construction site with a load is governed by 1926.1408—power line safety (up to 350 kV)--equipment operations, 1926.1409—power line safety (over 350 kV), 1926.1410—power line safety (all voltages)--equipment operations closer than the Table A zone, whichever is appropriate, and 1926.1417—operation, paragraph (u). It also has requirements pertaining boom/mast being lowered, clearances being maintained (i.e., reference table T), effects of speed and terrain on equipment, having a dedicated spotter, along with additional precautions for traveling in poor visibility.

1926.1411—Power line safety—while traveling.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard pertains to modified equipment, repaired/adjusted equipment, post-assembly, and when there are manufacturer procedures. It also provides requirements for inspections to be conducted each shift, monthly, annual/comprehensive, after severe service, when equipment is not in regular use, and having documents available.

<u>1926.1412</u>—Inspections.

Are employees using wire rope? (The next two standards apply to wire rope.) Yes / No / Unsure

The following standard requires that a competent person must begin a visual inspection prior to each shift the equipment is used, which must be completed before or during that shift and that the inspection consist of observation of wire ropes (running and standing) that are likely to be in use during the shift for apparent deficiencies (i.e., category I, II, and III deficiencies, critical review items, removal from service). It also has requirements for monthly inspections, annual/comprehensive inspections, use of rope lubricants, and documentation.

<u>1926.1413</u>—Wire rope - inspection.

Are employees using wire rope? Yes / No / Unsure

The following standard also pertains to wire rope and provides that the original equipment wire rope and replacement wire rope be selected and installed in accordance with the requirements of this standard and that the selection of replacement wire rope be in accordance with the recommendations of the wire rope manufacturer, the equipment manufacturer, or a qualified person. It also provides wire rope design criteria, wire rope compatibility, boom hoist reeving, rotation resistant ropes, use of wire rope clips, socketing, and use of seizings.

1926.1414—Wire rope—selection and installation criteria.

Are safety devices required? Yes / No / Unsure

The following standard requires safety devices on all equipment, and includes requirements pertaining to crane level indicators, boom stops, job stops, foot pedals having locks, rail clamps and rail stops, jacks having an integral holding device/check valve, horns, and requirement for proper operation of all devices.

<u>1926.1415</u>—Safety devices.

Are operational aids required? Yes / No / Unsure

The following standard states that devices listed in this standard ("listed operational aids") are required on all equipment and are in proper working order. It also provides the requirements pertaining to time

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periods for repair, temporary alternative measures, device substitutions, category I operational aids and alternative measures (i.e., boom hoist limiting device, luffing jib limiting device, anti-two blocking device), and category II operational aids and alternative measures (i.e., boom angle or radius indicator, jib angle indicator, boom length indicator, load weighing and similar devices). On equipment manufactured after 11/8/2011, the following devices are required: outrigger/stabilizer position (horizontal beam extension) sensor/monitor if the equipment has outriggers or stabilizers and hoist drum rotation indicator if the equipment has a hoist drum not visible from the operator's station. Some of the operational aids are not required for digger derricks and articulating cranes.

<u>Operational aids</u> - Devices that assist the operator in the safe operation of the crane by providing information or automatically taking control of a crane function.

1926.1416—Operational aids.

Are operational procedures unavailable? Yes / No / Unsure

The following standard provides the requirements pertaining to unavailable operation procedures (i.e., procedures developed by a qualified person, procedures developed by a registered professional engineer), accessibility of procedures, being attentive to operating equipment, unattended equipment, tagging out equipment, storm warnings, adjustments and repairs, rated capacity, safety devices and operational aids, competent person requirements (i.e., re-spooling rope, addressing effects of weather), compliance with rated capacity, traveling with loads, wheel-mounted equipment, equipment not used to drag or pull loads sideways, boom not contacting obstructions, rotational speeds, tag and restraint lines, brakes, counterweights/ballasts, swinging locomotive cranes, and operator obeying stop signals.

1926.1417—Operation.

Does the operator have the authority to stop or refuse to handle loads? Yes / No / Unsure

The following standard requires that whenever there is a concern as to safety, the operator has the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured.

1926.1418—Authority to stop operation.

Do you have signal persons? (The next four standards apply to signaling.) Yes / No / Unsure

The following standard provides the requirements for when a signal person must be provided (i.e., point of operation is not in view of operator, direction of travel is obstructed, site specific safety concerns), along with types of signals to be used, hand signals to be used (Reference appendix A - standard hand signals), new signals, suitability of signals, ability to transmit signals, stopping operations, one person providing signals to a crane/derrick at a time, signals provided from operators direction perspective, and communication with multiple cranes/derricks. Also reference 1926.1428—signal person qualifications.

<u>1926.1419</u>—Signals-general requirements.

Are signal devices being tested before beginning operations? Yes / No / Unsure

The following standard provides the requirements pertaining to testing the devices before beginning operations, using dedicated channels (two exceptions), and using a hands-free system for operator's reception of the signals.

1926.1420—Signals-radio, telephone or other electronic transmission of signals.

Are voice signals agreed upon by all affected parties? Yes / No / Unsure

The following standard provides that prior to beginning operations, a voice signal must be agreed upon by operator, signal person, and where applicable, lift director, and be effectively communicated in the language used. It also requires that each voice signal contain the following three elements in the following order: function (such as hoist, boom, etc.), direction; distance and/or speed; function, stop command.

1926.1421—Signals-voice signals-additional requirements.

Are hand signal charts posted? Yes / No / Unsure

The following standard states that the hand signal charts must be either posted on the equipment or conspicuously posted in the vicinity of the hoisting operations.

1926.1422—Signals-hand signal chart.

Do employees need fall protection? Yes / No / Unsure

The following standard provides the requirements pertaining to boom walkways, steps, handholds, ladders, grabrails, guardrails, railings, personal fall arrest and fall restraint systems (Reference 1926.502—fall protection systems criteria and practices), anchorage criteria, tower cranes (this paragraph applies only to tower cranes), anchoring to the load line, and training (Reference 1926.502—fall protection systems criteria and practices and 1926.503—training requirements).

<u>Fall protection equipment</u> - Means guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.

1926.1423—Fall protection.

Is the work area required to be controlled? Yes / No / Unsure

The following standard required work are control where there are accessible areas in which the equipment's rotating superstructure (whether permanently or temporarily mounted) poses a reasonably foreseeable risk. It provides the requirements pertaining to swing radius hazards, protecting employees in the hazard area and having a system for coordinating operations.

1926.1424—Work area control.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard provides requirements for hoisting routes, fall zones (i.e., suspended loads; hooking, guiding and initial connection of loads), receiving loads, and tilt-up and tilt-down operations.

<u>Load</u> - Refers to the object(s) being hoisted and/or the weight of the object(s); both uses refer to the object(s) and the load-attaching equipment, such as, the load block, ropes, slings, shackles, and any other ancillary attachment.

1926.1425—Keeping clear of the load.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard provides the requirements regarding boom free fall prohibitions, preventing boom free fall, preventing uncontrolled retraction, and load line free fall.

<u>Free fall (of the load line)</u> - Means that only the brake is used to regulate the descent of the load line (the drive mechanism is not used to drive the load down faster or retard its lowering).

1926.1426—Free fall and controlled load lowering.

Do you have equipment operators? Yes / No / Unsure

The following standard requires that operators of equipment under this subpart be qualified or certified to operate the equipment. It includes requirements for operators-in-training, trainers, prequalification/certification training period, multiple lifts, language and literacy requirements, and certification criteria.

Exception: Operator qualification or certification under this rule is not required for operators of 1926.1436—<u>derricks</u>, 1926.1440—<u>sideboom cranes</u>, or equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2,000 pounds or less.

1926.1427—Operator qualification and certification.

Do you have signal persons? Yes / No / Unsure

The following standard provides requirements pertaining to qualifications required for the signal person (i.e., option 1 - Third party qualified evaluator and option 2 - Employer's qualified evaluator), retraining, and qualification requirements. Also reference 1926.1419—<u>signals - general requirements</u>, 1926.1420—<u>signals - radio, telephone or other electronic transmission of signals</u>, 1926.1421—<u>signals - voice signals</u> - additional requirements, and 1926.1422—signals - hand signal chart.

1926.1428—Signal person qualifications.

Do you have maintenance employees or employees that repair equipment? Yes / No / Unsure

The following standard provides the qualifications for maintenance, inspection and repair personnel including:

- Operate the equipment under the direct supervision of an operator who meets the requirements 1926.1427—operator qualification and certification; or
- Are familiar with the operation, limitations, characteristics and hazards associated with the type of equipment.
- Maintenance and repair personnel must meet the definition of a qualified person with respect to the equipment and maintenance/repair tasks performed.

<u>Qualified person</u> - Means a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrated the ability to solve/resolve problems relating to the subject matter, the work, or the project.

1926.1429—Qualifications of maintenance and repair employees.

Are employees provided with training? Yes / No / Unsure

The following standard requires employees to be trained on overhead power lines (Reference 1926.1408—power line safety (up to 350 kV)-equipment operations, paragraph (g) and Reference 1926.1410—power line safety (all voltages)-equipment operations closer than the Table A zone, paragraph (m), and for employees that work with equipment, they must be trained on keeping clear of holes, of crush/pinch points and the hazards addressed in 1926.1424—work area control.

In addition, all signal persons must meet or be trained per the requirements of 1926.1428—<u>signal person qualifications</u>, <u>paragraph (c)</u>. Operators must be trained per 1926.1427—<u>operator training</u>, <u>certification</u>, <u>and evaluation</u>, <u>paragraph (a)</u> and (b) and on practices involving friction equipment, equipment with booms [Reference 1926.1417—<u>operation</u>, <u>paragraphs (f)</u> and (j)], and on the manufacturer's emergency procedures for halting unintended equipment movement. All operators and other employees authorized to start/energize equipment or operate equipment controls (such as maintenance and repair employees) must be trained in the tag-out and start-up procedures [Reference 1926.1417—<u>operation</u>, <u>paragraphs (f)</u> and (g)]. All competent persons and qualified persons must be trained per their respective roles. It also requires training administration including employees understanding the training, refresher training, and provided at no cost to the employee.

Are employees being hoisted? Yes / No / Unsure

The following standard states that the use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the project's structural design or worksite conditions. This standard does not apply to work covered by subpart R—steel erection.

It includes requirements for use of personnel platforms, equipment criteria (i.e., capacity of equipment, devices, controlled load lowering), personnel platform criteria, personnel platform landing, attachment and rigging, proof testing, work practices, environmental conditions, fall protection, traveling, pre-lift meetings, hoisting personnel near power lines, hoisting personnel in drill shafts, hoisting personnel for driving operations, hoisting personnel for marine transfer, and hoisting personnel for storage-tank (steel or concrete), shaft and chimney operations.

<u>Hoisting</u> - The act of raising, lowering or otherwise moving a load in the air with equipment covered by this standard. As used in this standard, "hoisting" can be done by means other than wire rope/hoist drum equipment.

Hoist - Means a mechanical device for lifting and lowering loads by winding a line onto or off a drum.

1926.1431—Hoisting personnel.

Are employees conducting multiple crane or derrick lifts? Yes / No / Unsure

The following standard provides for the development of a plan by a qualified person, meeting the requirements of the subpart and the plan being directed by a competent person or qualified person.

1926.1432—Multiple-crane/derrick lifts—supplemental requirements.

Are employees using equipment with a manufacturer-rated hoisting/lifting capacity of more than 2,000 pounds? Yes / No / Unsure

The following standard provides the requirements for equipment that has a manufacturer-rated hoisting/lifting capacity of more than 2,000 pounds. It also provides requirements pertaining to rated capacity, load hooks, hook and ball assemblies and load blocks, latching hooks, posted warnings, fire extinguishers, cabs, guarding components, hydraulic and pneumatic lines, exhaust fumes, friction mechanisms, hydraulic load hoists, and equipment modifications.

<u>1926.1433</u>—Design, construction, and testing.

Do you need approval from the manufacturer for modifications? Yes / No / Unsure

The following standard provides the requirements for obtaining manufacturer approval for modifications and/or additions, when the manufacturer is unavailable, multiple manufacturers, and manufacturer refusals. Note: These requirements do not apply to modifications made or approved by the U.S. military.

<u>1926.1434</u>—Equipment modifications.

Are employees operating tower cranes? Yes / No / Unsure

The following standard includes supplemental requirements for erecting, climbing, dismantling, signage, safety devices, operational aids, and inspections related to tower cranes.

<u>Tower crane</u> - A type of lifting structure which utilizes a vertical mast or tower to support a working boom (jib) in an elevated position. Loads are suspended from the working boom. While the working boom may be of the fixed type (horizontal or angled) or have luffing capability, it can always rotate to swing loads, either by rotating on the top of the tower (top slewing) or by the rotation of the tower (bottom slewing). The tower base may be fixed in one location or ballasted and moveable between locations. Mobile cranes that are configured with luffing jib and/or tower attachments are not considered tower cranes under this subpart.

<u>1926.1435</u>—Tower cranes.

Are employees operating derricks? Yes / No / Unsure

The following standard includes supplemental requirements for derricks, whether temporarily or permanently mounted. The standard provides operation procedures, general construction requirements, anchoring and guying, swingers and hoists, operational aids, post-assembly approval and testing, use of winch heads, securing the boom, and inspections.

<u>Derrick</u> - A powered equipment consisting of a mast or equivalent member that is held at or near the end by guys or braces, with or without a boom, and its hoisting mechanism. The mast/equivalent member and/or the load is moved by the hoisting mechanism (typically base-mounted) and operating ropes. Derricks include: A-frame, basket, breast, Chicago boom, gin pole (except gin poles used for erection of communication towers), guy, shearleg, stiffleg, and variations of such equipment.

<u>1926.1436</u>—Derricks.

Are employees operating floating cranes or derricks? Yes / No / Unsure

The following standard provides supplemental requirements for floating cranes/derricks, unless specified otherwise. It provides general requirements for work area control, additional safety devices, operational aids, accessibility of procedures applicable to equipment operation, inspections, manufacturer's specifications and limitations, and load charts.

<u>Floating cranes/derricks</u> - Means equipment designed by the manufacturer (or employer) for marine use by permanent attachment to a barge, pontoons, vessel or other means of flotation.

<u>1926.1437</u>—Floating cranes/derricks and land cranes/derricks on barges.

Are employees operating overhead or gantry cranes? Yes / No / Unsure

The following standard applies to the following equipment when used in construction and not permanently installed in a facility: Overhead and gantry cranes, overhead/bridge cranes, semigantry, cantilever gantry, wall cranes, storage bridge cranes, launching gantry cranes, and similar equipment having the same fundamental characteristics, irrespective of whether it travels on tracks, wheels, or other means. It states that the following standards in 1926 <u>subpart CC</u> apply to the overhead and gantry cranes listed above:

- 1926.1400—<u>scope.</u>
- 1926.1401—<u>definitions.</u>
- 1926.1402—ground conditions.
- 1926.1403—assembly/disassembly--selection of manufacturer or employer procedures.
- 1926.1404—assembly/disassembly--employer procedures--general requirements.
- 1926.1407—power line safety (up to 350 kV)--assembly and disassembly.
- 1926.1408—power line safety (up to 350 kV)--equipment operations.
- 1926.1409—power line safety (over 350 kV).
- 1926.1410—power line safety (all voltages)--equipment operations closer than the Table A zone.
- 1926.1411—power line safety-while traveling under or near power lines with no load.
- 1926.1412—inspections, paragraph (c) Post-assembly.
- 1926.1413—wire rope-inspection.
- 1926.1414—wire rope-selection and installation criteria.
- 1926.1417—<u>operation.</u>
- 1926.1418—authority to stop operation.
- 1926.1419—signals-general requirements.
- 1926.1420—signals-radio, telephone or other electronic transmission of signals.
- 1926.1421—signals-voice signals-additional requirements.
- 1926.1422—signals-hand signal chart.
- 1926.1423—<u>fall protection.</u>
- 1926.1424—work area control.
- 1926.1425—<u>keeping clear of the load</u> (except for <u>paragraph (c)(3)</u> qualified rigger.
- 1926.1426—<u>free fall and controlled load lowering.</u>

- 1926.1427—operator training, certification, and evaluation.
- 1926.1428—<u>signal person qualifications.</u>
- 1926.1429—qualifications of maintenance & repair employees.
- 1926.1430—<u>training.</u>
- 1926.1431—hoisting personnel.
- 1926.1432—multiple crane/derrick lifts--supplemental requirements.
- 1926.1434—<u>equipment modifications.</u>
- 1926.1437—floating cranes/derricks and land cranes/derricks on barges.
- 1926.1439—dedicated pile drivers.
- 1926.1441—equipment with a rated hoisting/lifting capacity of 2,000 pounds or less.

In addition, the following paragraphs of the general industry standard for 1910.179—overhead and gantry cranes applies: (b)(5), (b)(6), (b)(7), (e)(1), (e)(3), (e)(5), (e)(6), (f)(1), (f)(4), (g), (h)(1), (h)(3), (k), and (n) along with specific sections of the ASME B30.2-2005 consensus standard 1926.6—incorporated by reference.

1926.1438—Overhead & gantry cranes.

Are employees operating dedicated pile drivers? Yes / No / Unsure

The following standard states that all the requirements of <u>subpart CC</u>—cranes and derricks used in construction apply to dedicated pile drivers, except:

- Standard on 1926.1416—<u>operational aids, paragraph (d)(3)</u> Anti two-blocking device does not apply.
- Standard on 1926.1416—<u>operational aids</u>, <u>paragraph (e)(4)</u> Load weighing and similar devices applies only to dedicated pile drivers manufactured after November 8, 2011.
- For equipment manufactured on or after September 19, 2001, the following sections of ASME B30.2-2005 1926.6—incorporated by reference apply: 2-1.3.1; 2-1.3.2; 2-1.4.1; 2-1.6; 2-1.7.2; 2-1.8.2; 2-1.9.1; 2-1.9.2; 2-1.11; 2-1.12.2; 2-1.13.7; 2-1.14.2; 2-1.14.3; 2-1.14.5; 2-1.15.; 2-2.2; 2-3.2.1.1. In addition, 2-3.5 applies, except in 2-3.5.1(b), "The control of hazardous energy (general industry)" is substituted for "ANSI Z244.1."

<u>Dedicated pile-driver</u> - A machine that is designed to function exclusively as a pile-driver. These machines typically have the ability to both hoist the material that will be pile-driven and to pile-drive that material.

1926.1439—Dedicated pile drivers.

Are employees operating sideboom cranes? Yes / No / Unsure

The following standard states that the requirements of subpart CC apply to sideboom cranes, except 1926.1402—ground conditions, 1926.1415—safety devices, 1926.1416—operational aids, and 1926.1427—operator qualification and certification. It also states that 1926.1426—free fall and controlled load lowering applies, except equipment manufactured prior to October 31, 1984 [(a)(2)(i)].

Sideboom cranes in which the boom is designed to free fall (live boom) are permitted only if manufactured prior to November 8, 2010 and that sideboom cranes mounted on wheel or crawler tractors must meet all of the following requirements of ASME B30.14-2004 (1926.6—incorporated by reference).

<u>Sideboom crane</u> - Means a track-type or wheel-type tractor having a boom mounted on the side of the tractor, used for lifting, lowering or transporting a load suspended on the load hook. The boom or hook can be lifted or lowered in a vertical direction only.

1926.1440—Sideboom cranes.

Are employees using equipment with a rated hoisting/lifting capacity of 2,000 pounds or less? Yes / No / Unsure

The following standard requires that the employer using this equipment must comply with the following requirements:

- 1926.1400—<u>scope.</u>
- 1926.1401—definitions.
- 1926.1402—ground conditions.
- 1926.1403—assembly/disassembly--selection of manufacturer or employer procedures.
- 1926.1404—assembly/disassembly--employer procedures--general requirements.
- 1926.1407—power line safety (up to 350 kV)--assembly and disassembly.
- 1926.1408—power line safety (up to 350 kV)--equipment operations.
- 1926.1409—power line safety (over 350 kV).
- 1926.1410—power line safety (all voltages)--equipment operations closer than the Table A zone.
- 1926.1411—power line safety-while traveling under or near power lines with no load.
- 1926.1412—<u>inspections</u>, <u>paragraph (c)</u> Post-assembly.
- 1926.1413—wire rope-inspection.
- 1926.1414—wire rope-selection and installation criteria.
- 1926.1418—authority to stop operation.
- 1926.1419—signals-general requirements.
- 1926.1420—signals-radio, telephone or other electronic transmission of signals.
- 1926.1421—signals-voice signals-additional requirements.
- 1926.1422—signals-hand signal chart.

- 1926.1423—<u>fall protection.</u>
- 1926.1425—<u>keeping clear of the load</u> (except for <u>paragraph (c)(3)</u> qualified rigger.
- 1926.1426—free fall and controlled load lowering.
- 1916.1432—<u>multiple crane/derrick lifts--supplemental requirements.</u>
- 1926.1434—equipment modifications.
- 1926.1435—tower cranes.
- 1926.1436—<u>derricks.</u>
- 1926.1437—floating cranes/derricks and land cranes/derricks on barges.
- 1926.1438—<u>overhead & gantry cranes.</u>

It provides requirements for employers using equipment with a maximum rated hoisting/lifting capacity of 2,000 pounds or less. These include requirements pertaining to assembly and disassembly, operation procedures, safety devices and operational aids, operator qualifications, signal person qualifications, inspections, hoisting personnel and design.

1926.1441—Equipment with a rated hoisting/lifting capacity of 2,000 pounds or less.

Are employees using cranes and/or derricks? Yes / No / Unsure

The following standard states that should a court of competent jurisdiction hold any provision(s) of subpart CC to be invalid, such action shall not affect any other provision of the subpart.

<u>1926.1442</u>—Severability.

SUBPART CC APPENDICES:

Subpart CC, appendix A, provides standard hand signals.

Subpart CC, <u>appendix B</u>, provides assembly/disassembly sample procedures for minimizing the risk of unintended dangerous boom movement.

Subpart CC, <u>appendix C</u>, provides operator certification--written examination--technical knowledge criteria.

SUBPART CC REFERENCES:

Competent person

Cranes and derricks

Demolition

Electrical safety

Fall protection

Hoists

Lockout/tagout

Overhead and gantry cranes

Personal protective equipment

North Carolina **State-Specific Standards**

13 NCAC CHAPTER 7—OFFICE OF OCCUPATIONAL SAFETY & HEALTH

Subchapter 7A—General Rules and Operational Procedures

Does "Subchapter 7A—General Rules and Operational Procedures" apply to you?

This subchapter contains state-specific standards requiring "Safety and Health Programs and Committees." These standards apply to general industry and construction worksites with an experience modifier of 1.5 or higher.

Note: If this subchapter applies, then most of the standards within this subchapter will be applicable. References applicable to this subchapter are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you have an experience rate modifier of 1.5 or higher? Yes / No / Unsure

The following state-specific standards requires businesses with a workers' compensation experience rate modifier (ERM) of 1.5 or higher to improve their workplace safety and health efforts by establishing a safety and health program.

<u>Experience rate modifier ERM [AKA - (EMR) - Experience modification rate]</u> - Is a rate modifier used to establish a company's insurance premium for worker's compensation (WC).

ERM is based on your past three years (skipping the most current year in effect) of WC claims history for injuries and illnesses. An ERM of 1.0 is considered to be the average industry rate for a company and it can go up or down based on your claims history when comparing claims to other similar type industries. The more claims you have, the higher your ERM and the more you pay in WC premiums. If you have fewer claims, the lower your ERM and the less you pay in WC premiums.

Do you have an ERM of 1.5 or higher? Yes / No / Unsure

The following standard provides the purpose and scope of this subchapter.

7A .0601—Purpose and scope.

Do you have an ERM of 1.5 or higher? Yes / No / Unsure

The following standard provides the definitions for this subchapter.

7A .0602—Definitions.

Do you have an ERM of 1.5 or higher? Yes / No / Unsure

The following standard provides requirements pertaining to written safety and health programs that includes workplace inspection checklists, accident investigations, safe work practices, self-audits, purpose of the safety committee, required OSHA programs, and communication of hazards to employees.

7A 0603—Safety and health programs.

Do you have 11 or more employees and an ERM of 1.5 or higher? Yes / No / Unsure

The following standard provides requirements pertaining to the safety and health committee including selection of management, non-management members, and collective bargaining agents.

<u>7A .0604</u>—Selection of safety committees.

Do you have 11 or more employees and an ERM of 1.5 or higher at each location? Yes / No / Unsure

The following standard provides requirements pertaining to the safety and health committee as it relates to multi-site and multi-employer worksites.

<u>7A .0605</u>—Safety & health committee requirements.

Do you have an ERM of 1.5 or higher? Yes / No / Unsure

The following standard provides requirements pertaining to training and education for safety and health committee members and for employees that are not part of the committee. Training should include hazard identification, accident investigations, employee rights and responsibilities, recordkeeping requirements, common causes of accidents, PPE use, OSHA required training and on frequently cited OSHA violations.

7A .0606—Training and education.

SUBCHAPTER 7A REFERENCES:

Safety and health programs and committees

Subchapter 7F .0200—Standards

Does "Subchapter 7F .0200—Standards" apply to you?

This section of the subchapter contains state-specific standards for construction industry employers. It includes the promulgation of the 29 CFR Part 1926 standards (7F .0200—Construction Standards), along with state-specific standards related to personal protective equipment, nonionizing radiation, snaphooks, bloodborne pathogens, and steel erection.

Note: References applicable to this subchapter are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do you need to provide personal protective equipment? Yes / No / Unsure

The following state-specific rule applies if you are required to meet the 1926.28—personal protective equipment standard. It adds to paragraph (a) of the standard, "The employer is responsible for requiring the wearing of appropriate PPE (as described in 1926.28) in all operations where there is an exposure to hazardous conditions or where this part (1926) indicates a need for using such PPE to reduce hazards to the employees."

7F .0202—General safety and health provisions.

Are employees exposed to nonionizing radiation? Yes / No / Unsure

The following state-specific rule applies if you are required to meet the 1926.54—<u>nonionizing radiation</u> standard. It adds to <u>paragraph (a)</u> of the standard, "This standard applies to all direct or reflected laser equipment except unmodified Class 1 equipment maintained in accordance with the manufacturer's recommendations."

7F .0203—Occupational health and environmental controls.

Are your employees exposed to fall hazards? Yes / No / Unsure

The following state-specific rule applies if you are required to meet 1926.104—
<u>safety belts, lifelines, and lanyards</u>. It adds <u>paragraph (g)</u> to the standard, "Snaphooks shall be a locking type designed and used to prevent disengagement of the snaphook keeper by the connected member.

Locking type snaphooks have self-closing, self-locking keepers which remain closed and locked until unlocked and pressed open for connection or disconnection."

7F .0204—Personal protective and life-saving equipment.

Are you employees working in steel erection? Yes / No / Unsure

The following state-specific rule applies if you are required to meet subpart R—<u>steel erection</u> standards. It expands and clarifies the scope in <u>paragraph (b)</u> and adds requirements pertaining to tripping hazards to <u>paragraph (c)</u>. It also provides for guardrail systems, personal fall arrest systems or safety nets when leading edge work activities are six feet or more above the lower levels for employees not meeting training requirements.

7F .0205—Steel erection.

Do your employees have exposure to blood or other potentially infectious material? Yes / No / Unsure

The following North Carolina state-specific rule applies to all occupational exposure to blood or other potentially infectious materials (OPIM). It provides requirements for a written exposure control plan, methods of compliance (i.e. engineering controls, work practice controls), personal protective equipment, housekeeping, regulated waste, labels and signs, laundry, hepatitis B vaccination, post-exposure evaluation and follow-up, information and training, recordkeeping (References general industry standard, 1910.1020—access to employee exposure and medical records), and sharps injury log.

Occupational exposure - Means reasonably anticipated contact with skin, eye, mucous membrane, or parenteral (skin piercing) contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. Occupational exposure includes primary or collateral job duties to provide first aid medical assistance. It does not include Good Samaritan acts of first aid and CPR

<u>Bloodborne pathogens</u> - Means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Other potentially infectious materials - Means:

- The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

<u>7F .0207</u>—Toxic and hazardous substances. (*References general industry standard*, <u>1910.1030</u>—bloodborne pathogens).

7F .0600—Communication Tower Standards

Does "7F .0600—Communication Tower Standards" apply to you?

This section of the subchapter contains state-specific standards for communication tower including construction, repair, maintenance, and inspections. If you construct, repair, maintain and/or inspect communication towers, then most of the standards in 7F .0600 will apply to your organization.

Note: References applicable to this subchapter are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides the scope and application for this section of the subchapter. It applies to communication towers during construction, repair, maintenance and inspections.

Note: Where the communication tower is affixed to another structure, such as an electrical transmission tower, church steeple, building rooftop, or water tower, the applicable part of any controlling regulation for protection of employees (e.g., 1910.268—<u>telecommunications</u>, 1910.269—<u>electric power generation</u>, <u>transmission, and distribution</u> and 29 CFR 1926 subpart V - <u>electric power transmission and distribution</u>) applies up to the point of access to the communication tower. Thereafter, the provisions of these standards apply. These rules do not apply to communication towers that are mounted on motor vehicles.

It provides requirements for policies, procedures, and safe work practices to protect employees throughout North Carolina from the hazards of working on communication towers during construction, alteration, repair, operation, inspection, and maintenance activities. The standard includes requirements related to employer responsibilities, hazard identification and assessment, fall protection (i.e., pre-climb planning and inspections, fall protection systems, fall protection plan, guardrail systems, rescue procedures, first aid and CPR training and supplies, non-ionizing radiation, hoists and gin poles, recordkeeping, and training (i.e., written work procedures, fall protection training, trainer competency, hoist operator training, hazardous materials training, refresher training, training records).

7F .0601—Scope and application.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides the definitions for this section of the subchapter.

<u>Communication tower</u> - Defined as any tower over six feet in height that is used primarily as an antenna or to host one or more antennas.

7F .0602—Definitions.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides employer responsibilities as it relates to inspections by competent person, tower access and fall hazards.

<u>7F .0603</u>—Employer responsibilities.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard requires a hazard assessment to identify, assess and control employee exposure to hazards.

7F .0604—Hazard identification and assessment.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides for fall protection, fall protection systems, guardrail systems, personal fall arrest systems, positioning device systems, ladder safety systems, a fall protection plan, emergency and rescue procedures, and first aid/ CPR training and supplies.

7F .0605—Fall protection.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides for protection from radiation exposure, control procedures, and use of controls.

7F .0606—Non-ionizing radiation.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides requirements for using hoists and gin poles which include inspections, repair, maintenance, and alterations.

7F .0607—Hoists and gin poles.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides the recordkeeping requirements pertaining to the communication tower standards. It includes maintaining training records, medical and exposure records, and records relating to inspections and tests.

7F .0608—Recordkeeping.

Do your employees construct or work on communication towers? Yes / No / Unsure

The following standard provides requirements pertaining to competency of trainers, providing written work procedures to employees, hazardous materials training, fall protection training, hoist operator training, retraining and training certification records.

<u>7F .0609</u>—Training.

7F .0700—Blasting and Use of Explosives

Does "7F .0700—Blasting and Use of Explosives" apply to you?

This Section contains state- specific standards for blasting and use of explosives. This standard is in addition to subpart U—Blasting and Use of Explosives.

Note: If subpart U applies, then most of the standards in this section also applies. References applicable to this subchapter are located at the end of this section.

<u>Explosives</u> - Means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion; that is, with substantially instantaneous release of gas and heat, unless such compound, mixture or device is otherwise specifically classified by the U.S. Department of Transportation (USDOT), and any material designated as a Class 1 Explosive by the USDOT.

Yes / No / Unsure If yes, please continue.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard incorporates subpart U.

7F .0701—Blasting and use of explosives.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides definitions applicable to these standards.

7F .0702—Definitions.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements for qualified employees, prohibited devices (e.g., smoking, sparks), accounting for explosives, use of original containers, precautions, disposal, delivery of explosives, blaster-in-charge, buildings used for mixing, unauthorized entry, and carrying explosives.

7F .0703—General provisions.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides requirements for additional blaster qualifications including understanding orders, being qualified and knowledgeable, evidence of competency, and instruction provided of avoidance of unsafe conditions.

7F .0704—Blaster qualifications.

Are you transporting explosives? Yes / No / Unsure

The following standard provides additional requirements for surface transportation of explosives. It provides requirements relating DOT regulations, licensing for drivers, items securely attached to vehicles used for transportation, vehicle markings and placards, fire extinguishers, servicing vehicles, and no delays in transportation.

<u>7F .0705</u>—Surface transportation of explosives.

Are explosives transported underground? Yes / No / Unsure

The following standard provides requirements for storage, quantities, occupied vehicles, signage, compartments for detonators, and closed containers.

7F .0706—Underground transportation of explosives.

Do you store explosives and blasting agents? Yes / No / Unsure

The following standard provides requirements for explosives, blasting agents, blasting caps and detonators in magazines and containers, storage underground, and no smoking and open flames permitted in storage areas.

7F .0707—Storage of explosives and blasting agents.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for procedures relating to safe loading of explosives, removal of equipment and personnel from blast site, maintaining safe distances from blast area, maintaining explosive records, and other procedures.

7F .0708—Loading of explosives or blasting agents.

Do you use electric detonators? Yes / No / Unsure

The following standard provides the requirements for using electric detonators including conducting stray voltage surveys, use of blasting machines or power circuits, and other applicable procedures.

7F .0709—Initiation of explosive charges-electric blasting.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for using the safety fuse and safe handling of the fuse.

7F .0710—Use of safety fuse.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides procedures for use of the detonating cord and connections, following manufacturer' instructions, inspections, taping securely, and handling,

7F .0711—Use of detonating cord and shock tube.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard applies to firing the blast and includes a code of blasting signals, for them to be audible, an emergency.

<u>7F .0712</u>—Firing the blast.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard provides the requirements for inspections after blasting. It includes sufficient time being allowed before returning to the blast, and following 7F .0714 if there are misfires.

<u>7F .0713</u>—Inspection after blasting.

Are employees doing blasting work and/or use explosives? Yes / No / Unsure

The following standard pertains to misfires and includes procedures involving safeguards, removing misfires, and detonating misfires.

7F .0714—Misfires.

Are you conducting underwater blasting? Yes / No / Unsure

The following standard provides requirements for blasting under water. It includes blaster-in-charge approvals, use of water-resistant detonators, and detonating cords,

7F .0715—Underwater blasting.

Does the blasting involve excavation work under compressed air? Yes / No / Unsure

The following standard states that the explosives should be water-resistant, and that only qualified employees (i.e., blaster, lock tender) should enter the air lock.

<u>7F.0716</u>—Blasting in excavation work under compressed air.

SUBCHAPTER 7F APPENDICES:

Bloodborne pathogens:

1910.1030, appendix A provides the hepatitis B vaccine declination form.

SUBCHAPTER 7F REFERENCES:

Bloodborne pathogens

Communication towers

Competent person

Demolition

Electrical safety

Emergency action plans

Eyewash stations and emergency showers

Fall protection

Flammable liquids

Hazard communication

HAZWOPER

Radiation, ionizing and non-ionizing radiation

Materials handling and storage

Medical services and first aid

Personal protective equipment

Recording and reporting

Respiratory protection

NORTH CAROLINA GENERAL STATUTE (NCGS)

NCGS 95-129—Rights and Duties of Employers

Does "NCGS 95-129—Rights and Duties of Employers" apply to you?

The General Duty Clause is used only where there is no standard that applies to the particular hazard. Employers can be cited for violation of the General Duty Clause if a recognized serious hazard exists in their workplace and the employer does not take reasonable steps to prevent or abate the hazard.

Note: References applicable to this subchapter are located at the end of this section.

Yes / No / Unsure If yes, please continue.

Are you covered by the OSH Act? Yes / No / Unsure

The following standard applies to everyone covered under the OSH Act. The GDC is used when there isn't a standard for a recognized hazard that can cause death or serious injury or serious physical harm. Examples of GDC violations can include hazards such as heat stress, seatbelt not on a forklift, and ergonomics.

"Each employer shall furnish to each of his employees conditions of employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious injury or serious physical harm to his employees."

NCGS 95-129(1)—General Duty Clause.

NCGS 95-173 - 218—Hazardous Chemical Right to Know Act

Does "NCGS 95-173-218—Hazardous Chemical Right to Know Act" apply to you?

This state statute (Article 18 – Identification of Toxic or Hazardous Substances) consists of two major parts; public safety and emergency response right to know, and community right to know. The state-specific standard provides the requirements pertaining to a hazardous substance list, safety data sheets (SDS), labels, emergency information, complaints, investigations and penalties, employee rights, withholding hazardous substance trade secret information, medical emergency and nonemergency situations, community information on hazardous chemicals, exemptions (i.e., farming operations, distilled spirits, tobacco, patient care medicines), preemption of local regulations, and severability.

Note: References applicable to this subchapter are located at the end of this section.

<u>Public safety and emergency response right to know</u> - Requires employers who manufacture, process, use, store or produce at least 55 gallons or 500 pounds, whichever is greater, of hazardous chemicals to compile and annually update a list of the hazardous chemicals including the identity of each such chemical and their respective quantities. A copy of this list must be provided to the local fire chief.

<u>Community right to know</u> - Permits any person in North Carolina to request a list of chemicals used or stored at a given facility. The request must be in writing and applies to employers who must compile a hazardous chemicals list and for those chemicals included on the list. In addition, an employer claiming a trade secret may withhold the identity of the chemical.

Yes / No / Unsure If yes, please continue.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard provides that the article will be referred to as the Hazardous Chemical Right to Know Act.

95-173—Short title.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard provides the definitions applicable to this rule.

95-174—Definitions.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following state-specific standard provides the requirements for maintaining a hazardous substance list. It requires that is be updated at least annually if not more frequently. A copy of this list must be provided to the local fire chief.

95-191—Hazardous substance list.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard requires that the most current SDS be maintained by the employer.

95-192—Safety data sheets.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard requires that all labels not be removed or defaced.

95-193—Labels.

Do you store more 55 gallons or 500 pounds of any hazardous substance? Yes / No / Unsure

The following standard requires that the local fire department be notified in writing of a contact person and the list of hazardous substances at the site. It also provides for updating the local fire department of updates in the list, allow for on-site inspections by the fire department, and preparing an emergency response plan for the facility.

95-194—Emergency information.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard provides for filing of complaints to the Commissioner of Labor and allows for onsite investigations and penalties.

95-195—Complaints, investigations, penalties.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard protects employees from being disciplined as it relates to complaint inspections.

95-196—Employee rights.

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard allows for an employer to withhold hazardous chemical information as long as it is provided to the local fire department who will maintain confidentiality.

95-197—Withholding hazardous substance trade secret information.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

In an emergency situation, the employer must immediately disclose the information to the healthcare provider. For nonemergency situations, the provider can request the information and the employer shall disclose the information but may still request confidentiality.

95-198—Medical emergency and nonemergency situations.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard allows for any person in North Carolina to request in writing a list of hazardous chemicals kept at the worksite.

95-208—Community information on hazardous chemicals.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard provides the exemptions to Article 18 – Identification of Toxic or Hazardous Substances. These include chemicals in or on any of the following: (1) Hazardous substances while being transported in interstate commerce into or through this State. (2) Products intended for personal consumption by employees in the facilities. (3) Retail food sale establishments and all other retail trade establishments in North American Industry Classification System Codes 44 through 45, exclusive of processing and repair areas, except that the employer must comply with the provisions of G.S. 95-194(a)(i). (4) Any food, food additive, color additive, drug or cosmetic as such terms are defined in the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301, et seq.). (5) A laboratory under the direct supervision or guidance of a technically qualified individual provided that: a. Labels on containers of incoming chemicals shall not be removed or defaced; b. SDSs received by the laboratory shall be maintained and made accessible to employees and students; c. The laboratory is not used primarily to produce hazardous chemicals in bulk for commercial purposes; and d. The laboratory operator complies with the provisions of G.S. 95-194(a)(i). (6) Any farming operation which employs 10 or fewer full-time employees, except that if any hazardous chemical in an amount in excess of 55 gallons or 500 pounds, whichever is greater, is normally stored at the farming operation, the employer must comply with the

provisions of G.S. 95-194(a)(i). (7) Any distilled spirits, tobacco, and untreated wood products. (8) Medicines used directly in patient care in health care facilities and health care facility laboratories.

95-216—Exemptions.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard states that local government are preempted from exercising their powers to require disclosure, directly or indirectly, of information regarding the use or storage of hazardous chemicals by employers to any members of the public, or to any branch or agent of State or local government in any manner other than as provided for in this Article.

<u>95-217</u>—Preemption of local regulations.

Do you manufacture, process, use, store, or produce hazardous chemicals in quantities of at least 55 gallons or 500 pounds? Yes / No / Unsure

The following standard provides for severability of the standards within this Article.

95-218—Severability.

NORTH CAROLINA GENERAL STATUTE REFERENCES:

Hazard communication

Hazardous chemicals right to know

North Carolina field operations manual, chapter IV - violations

OSH DIVISION OUTREACH RESOURCES AND SERVICES:

Safety and health programs and plans (i.e., example programs to be made site-specific)

Safety and health topics (i.e., learn more about safety and health topics)

Which standards apply? (identify the standards applicable to your worksite)

<u>Safety and health presentations</u> (downloadable presentations to be made site-specific)

OSH training calendar (i.e., register for webinars, in-person classroom training, virtual events)

Streaming video services (on-demand training)

Request outreach services (i.e., request training, booths, guest speaker)

<u>AskOSH</u> (Inquiries)

NCDOL library (i.e., consensus standards, research assistance)

<u>Inspections</u> (construction standards that require inspections)

<u>Programs, plans and procedures</u> (construction standards that require programs, plans, procedures)

<u>Training</u> (construction standards that require training)

OSH enforcement procedures (e.g., compliance directives, operational procedure notices)

OTHER OUTREACH RESOURCES:

<u>Establishment search</u> (search OSHA enforcement inspections nationwide)

Interpretations (federal OSHA interpretations for general industry)

<u>Training</u> (Susan Harwood Grant PowerPoints)