

Which Standards Apply

<u>29 CFR 1910</u>—GENERAL 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 **General Industry** and **North Carolina State**-Specific standards. OSHA uses the term "<u>General Industry</u>" to refer to all industries not included in agriculture, construction or maritime. General industries are regulated by OSHA's general industry standards, directives, and standard interpretations.

Note: Many employers may need to comply with both General Industry standards and Construction standards depending on the "work that is being performed". <u>Construction work</u> means construction, alteration, and/or repair, including painting and decorating.

INSTRUCTIONS:

To assist the employer in identifying which **General Industry** 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".
- Subparts <u>A</u>, <u>B</u> and <u>C</u> covers consensus standards incorporated by reference, promulgation of standards and other regulatory information pertaining to the OSHA standards. Subparts V Y are currently reserved. As such, these subparts will not be covered in this document.
- Most standards have *interpretations* which should be referenced when available for clarification of the standard. Other useful *compliance enforcement documents* to reference include compliance directives (CPL), field operations manual (FOM), standards directives (STD), *a*nd operational procedure notices (OPN).



"WHICH STANDARDS APPLY"-EXERCISE

Subpart D—Walking-Working Surfaces

Does "<u>Subpart D</u>—Walking-Working Surfaces" apply to you?

This subpart provides the standards for ladders, step bolts, manhole steps, scaffolds, stairways, dockboards, rope descent systems, and other walking and working surfaces. It also provides the requirements for fall protection, fall protection systems, and falling object protection.

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

Yes / No / Unsure If yes, please continue.

Do you have walking and working surfaces? Yes / No / Unsure

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

<u>Walking and working surface</u> - Any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.

<u>1910.21</u>—Scope and definitions.

Do you have walking and working surfaces? Yes / No / Unsure

The following standard provides general requirements for floor loading, housekeeping, access and egress, maintenance, and repair.

<u>1910.22</u>—General requirements.

Do you have ladders? Yes / No / Unsure

The following standard covers all ladders, except when the ladder is used in emergency operations such as firefighting, rescue, and tactical law enforcement operations, or training for these operations; or designed into or is an integral part of machines or equipment. It provides general requirements (i.e., defective ladders tagged, inspections, one hand grasp), along with specific requirements for portable ladders, fixed ladders, mobile ladder stands and mobile ladder stand platforms.

Also reference 1910.30—<u>training requirements</u> as it requires specific training in the proper care, inspection, storage, and use of equipment covered by <u>subpart D</u> before an employee uses the equipment. It also includes requirements pertaining to fall hazards, procedures to follow, use of protection systems,

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equipment hazards, and when to retrain.

The criteria and practice requirements for fixed ladders with cages, wells and platforms are provided in the standard on 1910.29—fall protection systems and falling object protection-criteria and practices.

<u>1910.23</u>—Ladders.

Do you have step bolts or manhole steps? Yes / No / Unsure

The following standard provides general requirements for the construction, design, and loading for step bolts and general requirements for manhole steps such as construction and uniformity.

Also reference 1910.30—<u>training requirements</u> as it requires specific training in the proper care, inspection, storage, and use of equipment covered by <u>subpart D</u> before an employee uses the equipment.

<u>Step bolt</u> (pole step) - A bolt or rung attached at intervals along a structural member used for foot placement and as a handhold when climbing or standing.

<u>Manhole steps</u> - Steps that are individually attached to, or set into, the wall of a manhole structure.

<u>1910.24</u>—Step bolts and manhole steps.

Do you have stairways? Yes / No / Unsure

The following standard covers all stairways (including standard, spiral, ship, and alternating tread-type stairs), except for stairs serving floating roof tanks, stairs on scaffolds, stairs designed into machines or equipment, and stairs on self-propelled motorized equipment. It provides general requirements for vertical clearance, riser heights, and tread depths, along with additional specific requirements for standard stairs, spiral stairs, ship stairs, and alternating tread-type stairs.

The standard also references that requirements for handrails, stair rail systems, and guardrail systems are found in 1910.28—duty to have fall protection and falling object protection.

<u>1910.25</u>—Stairways.

Do you have dockboards? Yes / No / Unsure

The following standard provides requirements pertaining to load, construction, anchoring, and safe handling of dockboards.

Also reference 1910.30—<u>training requirements</u> as it requires specific training in the proper care, inspection, storage, and use of equipment covered by <u>subpart D</u> before an employee uses the equipment. It specifically requires the employer to train each employee who uses a dockboard to properly place and secure it to prevent unintentional movement.



<u>Dockboard</u> - A portable or fixed device that spans a gap or compensates for a difference in elevation between a loading platform and a transport vehicle. Dockboards include, but are not limited to, bridge plates, dock plates, and dock levelers.

1910.26—Dockboards.

Do you have rope descent systems or scaffolds? Yes / No / Unsure

The following standard provides the requirements for rope descent systems including anchorages and use. It also requires that scaffolds used in general industry must meet the requirements of Part 1926 (Construction standards), subpart L—scaffolds.

Also reference 1910.30—<u>training requirements</u> as it requires specific training in the proper care, inspection, storage, and use of equipment covered by <u>subpart D</u> before an employee uses the equipment. It specifically requires the employer to train each employee who uses a rope descent system in proper rigging and use of the equipment.

<u>Rope descent systems</u> - A suspension system that allows an employee to descend in a controlled manner and, as needed, stop at any point during the descent. A rope descent system usually consists of a roof anchorage, support rope, a descent device, carabiner(s) or shackle(s), and a chair (seatboard). It is also called controlled descent equipment or apparatus. Rope descent systems do not include industrial rope access systems.

<u>Scaffold</u> - Any temporary elevated or suspended platform and its supporting structure, including anchorage points, used to support employees, equipment, materials, and other items. For purposes of this subpart, a scaffold does not include a crane-suspended or derrick-suspended personnel platform or a rope descent system.

Note: Scissorlifts meet the <u>definition of scaffolds</u> and falls under the requirements for scaffolds even when used for interior building maintenance.

<u>1910.27</u>—Scaffolds and rope descent systems.

Do you have fall hazards or falling object hazards? Yes / No / Unsure

The following standard requires employers to provide protection for each employee exposed to fall and falling object hazards. It provides requirements for using or having guardrail systems, safety net systems, travel restraint systems, personal fall arrest systems and requirements for designated areas to protect the employee from falling or being hit by falling objects.

This standard does not apply:

- To portable ladders;
- When employers are inspecting, investigating, or assessing workplace conditions or work to be performed prior to the start of work or after all work has been completed. This exemption does

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not apply when fall protection systems or equipment, meeting the requirements of 1910.28—<u>fall</u> <u>protection systems and falling object protection-criteria and practices</u>, have been installed and are available for workers to use for pre-work and postwork inspections, investigations, or assessments;

- To fall hazards presented by the exposed perimeters of entertainment stages and the exposed perimeters of rail-station platforms;
- To powered platforms covered by 1910.66—<u>powered platforms for building</u> <u>maintenance</u>, <u>paragraph (j)</u> - personal fall protection;
- To aerial lifts covered by 1910.67—<u>vehicle-mounted elevating and rotating work</u> <u>platforms</u>, <u>paragraph (c)(2)(v)</u>;
- To telecommunications work covered by 1910.268—<u>telecommunications</u>, paragraph (n)(7) and (n)(8); and
- To electric power generation, transmission, and distribution work covered by 1910.269—<u>electric</u> power generation, transmission, and distribution, paragraph (g)(2)(i).

Note: When the employer can demonstrate that it is not feasible or creates a greater hazard to use guardrail, safety net, or personal fall protection systems on residential roofs, the employer must develop and implement a fall protection plan that meets the requirements of Part 1926 (Construction standards), subpart M, 1926.502—<u>fall protection systems criteria and practices</u>, paragraph (k) and training that meets the requirements of the construction standard, 1926.503—<u>training requirements</u>, paragraph (<u>a</u>) and (<u>c</u>).

<u>1910.28</u>—Duty to have fall protection and falling object protection.

Are you using fall protection systems or falling object protection? Yes / No / Unsure

The following standard provides the criteria and practice requirements for handrails, stair rail systems, guardrail systems, fixed ladders with cages, wells and platforms, and outdoor advertising operations are provided in the standard on 1910.29—fall protection systems and falling object protection-criteria and practices. This standard also requires that safety net systems meet the requirements of subpart M - fall protection in the construction standards.

The requirements pertaining to personal fall protection systems can be found in 1910.140—<u>personal fall</u> <u>protection systems</u>, in Part 1910 (General Industry standards) subpart I—<u>personal protective</u> <u>equipment</u>. It establishes performance, care, and use criteria for all personal fall protection systems. If you use fall protection systems, also reference 1910.30—<u>training requirements</u> as it requires specific training requirements pertaining to fall hazards, procedures to follow, use of protection systems, equipment hazards, and when to retrain.

<u>1910.29</u>—Fall protection systems and falling object protection-criteria and practices.

Are employees trained? Yes / No / Unsure

The following standard requires specific training in the proper care, inspection, storage, and use of

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equipment covered by 1910, subpart D before an employee uses the equipment. It also covers retraining requirements.

<u>1910.30</u>—Training requirements.

SUBPART D REFERENCES:

<u>Fall protection</u> <u>Scaffolds</u> <u>Walking – working surfaces</u>

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Subpart E—Exit Routes and Emergency Planning

Does "Subpart E—Exit Routes and Emergency Planning" apply to you?

This subpart provides standards for exit routes, egress, emergency planning, emergency action plans and fire prevention plans. This subpart does not apply to mobile workplaces such as vehicles or vessels.

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 have a workplace that is not mobile? Yes / No / Unsure

The following standard provides the table of contents for this subpart.

<u>1910.33</u>—Table of contents.

Do you have a workplace that is not mobile? Yes / No / Unsure

The following standard provides the coverage and definitions applicable to this subpart.

<u>1910.34</u>—Coverage and definitions.

Do you have a workplace that is not mobile? Yes / No / Unsure

The following standard states that "OSHA will deem an employer demonstrating compliance with the exit-route provisions of <u>NFPA 101</u>, <u>Life Safety Code</u>, 2009 edition, or the exit-route provisions of the International Fire Code, 2009 edition, to be in compliance with the corresponding requirements in 1910.6—<u>incorporated by reference</u>.

<u>1910.35</u>—Compliance with alternate exit-route codes.

Do you have a workplace that is not mobile? Yes / No / Unsure

The following standard provides requirements for permanent exits, limited openings, number of exit routes, exit discharge, exits unlocked, capacity, minimum height requirements, and outdoor exit routes.

<u>1910.36</u>—Design and construction requirements for exit routes.

Do you have a workplace that is not mobile? Yes / No / Unsure

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 requirements for exits to be free and unobstructed, free of explosives or flammables, adequate lighting and marked, fire retardant properties of paint, alarm systems, and maintenance during construction and repairs.

<u>1910.37</u>—Maintenance, safeguards, and operational features for exit routes.

Are fire extinguishers provided but are not intended for employee use? Yes / No / Unsure

The following standard on emergency action plans is required when fire extinguishers are provided but are not intended for employee use [Reference 1910.157—<u>portable fire extinguishers</u>, paragraph(<u>a</u>)]. The standard provides requirements pertaining to oral and written plans, emergency procedures, training, employee alarm systems, and plan review. Also reference 1910.165—<u>employee alarm systems</u> (i.e., whistles, horns, lights).

<u>1910.38</u>—Emergency action plans.

Do you need to comply with any of the OSHA standards listed below? Yes / No / Unsure

An emergency action plan is also required for the standards listed below. The standard provides requirements pertaining to oral and written plans, emergency procedures, training, employee alarm systems, and plan review. Also reference 1910.165—<u>employee alarm systems</u> (i.e., whistles, horns, lights).

- 1910.66—Powered platforms for building maintenance.
- 1910.119—Process safety management of highly hazardous chemicals.
- 1910.120—<u>Hazardous waste operations and emergency response.</u>
- 1910.157—<u>Portable fire extinguishers.</u>
- 1910.272—<u>Grain handling facilities.</u>
- 1910.1047—<u>Ethylene oxide.</u>
- 1910.1050—<u>Methylenedianiline.</u>
- 1910.1051—<u>1,3-butadiene.</u>

1910.38—Emergency action plans.

Are fire extinguishers provided but are not intended for employee use? Yes / No / Unsure

The following standard on fire prevention plans is required when fire extinguishers are provided but are not intended for employee use [Reference 1910.157—portable fire extinguishers, paragraph (a)]. The standard provides requirements pertaining to written and oral plans, list of fire hazards, emergency procedures, and training.

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<u>1910.39</u>—Fire prevention plans.



Do you need to comply with any of the OSHA standards listed below? Yes / No / Unsure

A fire prevention plan is also required for the standards listed below. The standard provides requirements pertaining to written and oral plans, list of fire hazards, emergency procedures, and training.

- 1910.1047—<u>Ethylene oxide.</u>
- 1910.1050—<u>Methylenedianiline.</u>
- 1910.1051—<u>1,3-butadiene.</u>

<u>1910.39</u>—Fire prevention plans.

SUBPART E APPENDICES:

Subpart E, appendix A provides guidance information for emergency action plans and fire prevention plans including floor maps, medical and first aid, wardens, training and coordinating with other employers when a multi-employer facility.

SUBPART E REFERENCES:

<u>Emergency action plans</u> <u>Employee alarm system</u> <u>Exits and exit routes</u> <u>Fire prevention plans</u> <u>Fire protection and prevention</u> <u>Illumination</u>



Subpart F—Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms

Does "<u>Subpart F</u>—Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms" apply to you?

This subpart provides the standards for powered platforms, vehicle-mounted elevating and rotating work platforms and manlifts. Additionally, scissor lifts meet the <u>definition of scaffolds</u> and fall under the requirements for scaffolds even when used for interior building maintenance. For more information relating to scissor lifts, reference 1910.27—<u>scaffolds and rope descent systems</u>, in subpart D—walking - working surfaces.

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 have powered platforms that are "permanently dedicated" to providing interior or exterior building maintenance of a specific structure, or group of structures? Yes / No / Unsure

This standard applies only to powered platform installations permanently dedicated to providing interior or exterior building maintenance of a specific structure, or group of structures.

This standard does not apply to suspended scaffolds (swinging scaffolds) used to service buildings on a temporary basis and covered under general industry standards, Part 1910, subpart D—<u>walking-working</u> <u>surfaces</u>, nor to suspended scaffolds used for construction work and covered under Part 1926, subpart L—<u>scaffolds</u>.

This standard provides requirements for a written assurance (i.e., inspection, tested, maintained) for new installations by building owners, and requirements for use of powered platforms in affected parts of buildings, including installation of equipment, inspections and tests, maintenance and training.

<u>1910.66</u>—Powered platforms for building maintenance.

Do you have aerial devices? Yes / No / Unsure

The following standard provides general requirements for construction, design, and field modifications of aerial devices. It also provides specific requirements for ladder trucks, tower trucks, and extensible and articulating boom platforms (i.e., welding, electrical tests, bursting safety factor, personal fall arrest systems).

It does not apply to firefighting equipment or to the vehicles upon which aerial devices are mounted except with respect to the requirement that the vehicle be a stable support for the aerial device [Reference paragraph (b)(3)].

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<u>Aerial device</u> - Any vehicle-mounted device, telescoping or articulating device, or both, which is used to position personnel.

<u>Vehicle</u> - Any carrier that is not manually propelled. They include the following aerial devices used to elevate personnel to jobsites above ground:

- <u>Extensible boom platforms</u> An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.
- <u>Aerial ladders</u> An aerial device consisting of a single- or multiple-section extensible ladder.
- <u>Articulating boom platforms</u> An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.
- <u>Vertical towers</u> An aerial device designed to elevate a platform in a substantially vertical axis, and
- A combination of any of the above.

<u>1910.67</u>—Vehicle-mounted elevating and rotating work platforms.

Do you have manlifts? Yes / No / Unsure

The standard applies to the construction, maintenance, inspection, and operation of manlifts in relation to accident hazards. Manlifts covered by this standard are those intended for conveyance of persons only. This standard does not cover moving stairways, elevators with enclosed platforms ("Paternoster" elevators), gravity lifts, or conveyors used only for conveying material.

<u>Manlift</u> - A device consisting of a power-driven endless belt moving in one direction only and provided with steps or platforms and handholds attached to it for the transportation of personnel from floor to floor.

<u>1910.68</u>—Manlifts.

SUBPART F APPENDICES:

Powered platforms for building maintenance:

1910.66, appendix A provides examples of equipment and methods to assist the employer in meeting the requirements of the indicated provision of the standard.

1910.66, appendix B illustrates typical platform stabilization systems which are addressed in the standard.

1910.66, appendix D provides mandatory building and equipment requirements for applicable permanent installations.



SUBPART F REFERENCES:

<u>Aerial lifts</u>

Competent person Electrical safety Emergency action plans Fall protection Fire prevention plans Manlifts Portable fire extinguishers Scaffolds Walking - working surfaces Welding and cutting



Subpart G—Occupational Health and Environmental Control

Does "Subpart G—Occupational Health and Environmental Control" apply to you?

This subpart provides standards for operations involving abrasive blasting, grinding, polishing, buffing and spray finishing that requires ventilation. It also provides the standards for noise and non-ionizing radiation exposures in the workplace.

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 have an operation where an abrasive is forcibly applied to a surface by pneumatic or hydraulic pressure, or by centrifugal force? Yes / No / Unsure

The following standard covers three separate operations: paragraph (a) - abrasive blasting; <u>paragraph</u> (b) - grinding, polishing and buffing; and paragraph (c) - spray finishing.

<u>Paragraph (a)</u> requires complying with Part 1910, subpart Z—<u>toxic and hazardous substances</u>, when respirable dust or fume are in the breathing zone of the abrasive-blasting operator or any other worker and complying with the referenced consensus standards (Reference 1910.6—<u>incorporation by</u> <u>reference</u>).

This section of the standard provides requirements pertaining to blast-cleaning enclosures, exhaust ventilation systems, personal protective equipment, and operational procedures and general safety. This section does not apply to steam blasting, or steam cleaning, or hydraulic cleaning methods where work is done without the aid of abrasives.

<u>1910.94</u>—Ventilation.

Do you grind, polish, or buff ferrous and nonferrous metals? Yes / No / Unsure

The following standard covers three separate operations: paragraph (a) - abrasive blasting; paragraph (b) - grinding, polishing and buffing; and paragraph (c) - spray finishing.

<u>Paragraph (b)</u> prescribes 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 section of the standard applies whenever dry grinding, dry polishing or buffing is performed, and employee exposure, without regard to the use of respirators, exceeds the permissible exposure limits prescribed in Part 1910, subpart Z—toxic and hazardous substances.



This section requires a local exhaust ventilation system to be provided and used to maintain employee exposures within the prescribed limits. It also provides specific requirements for hood and branch pipe, exhaust systems, hood and enclosure design, and definitions specific to this section.

<u>1910.94</u>—Ventilation.

Do you have spray finishing operations? Yes / No / Unsure

The following standard covers three separate operations: paragraph (a) - abrasive blasting; paragraph (b) - grinding, polishing and buffing; and paragraph (c) - spray finishing.

<u>Paragraph (c)</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. This section of the standard provides the requirements for design and construction of spray booths and rooms, ventilation systems (Reference 1910.107—<u>spray finishing using flammable and combustible materials</u>), velocity, air flow, and make-up air and referenced consensus standards (Reference 1910.6—<u>incorporation by reference</u>).

1910.94—Ventilation.

Do you have occupational noise exposure? Yes / No / Unsure

The following standard applies when employees are exposed at or above the action level of 85 decibels based on an 8 hour time weighted average or a dose of fifty percent based on <u>Table G-16</u> - permissible noise exposures. This is after feasible administrative, or engineering controls have been utilized but failed to reduce sound levels to those provided in the table. Please note that the noise exposure should be considered without the use of personal protective equipment.

Employers engaged in oil and gas well drilling and servicing operations only need to comply with paragraph (a) regarding providing protection (personal protective equipment) against noise levels exceeding permissible noise exposures (<u>Table G-16</u>) and using feasible engineering or administrative controls, paragraph (b).

This standard provides requirements for a hearing conservation program, noise level exposures, monitoring, training program, audiometric testing program, audiometric test requirements, hearing protection, hearing protector attenuation, and recordkeeping.

<u>1910.95</u>—Occupational noise exposure.

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

The following standard applies to all radiations originating from radio stations, radar equipment, and other possible sources of electromagnetic radiation such as used for communication, radio navigation,



and industrial and scientific purposes. It does not apply to the deliberate exposure of patients by, or under the direction of, practitioners of the healing arts. This standard provides requirements for a radiation protection guide and a warning symbol.

<u>1910.97</u>—Non-ionizing radiation.

SUBPART G APPENDICES:

Occupational noise:

1910.95, appendix A provides noise exposure computations.

1910.95, <u>appendix B</u> provides methods for estimating the adequacy of hearing protector attenuation.

1910.95, <u>appendix C</u> provides information on audiometric measuring instruments.

1910.95, appendix D covers audiometric test room.

1910.95, appendix E covers acoustic calibration of audiometers.

1910.95, appendix F covers calculations and application of age corrections to audiograms.

1910.95, <u>appendix G</u> provides information to help employers comply with the noise monitoring obligations.

SUBPART G REFERENCES:

<u>Abrasive blasting</u> <u>Combustible dust</u> <u>Flammable liquids</u> <u>Hierarchy of controls</u> <u>Noise</u> <u>Personal protective equipment</u> <u>Radiation, ionizing and non-ionizing</u> <u>Respiratory protection</u> <u>Ventilation</u>



Subpart H—Hazardous Materials

Does "Subpart H—Hazardous Materials" apply to you?

This subpart provides the standards for compressed gases, flammable liquids, explosives and blasting agents, LP gases, anhydrous ammonia, process safety management of highly hazardous materials, HAZWOPER, and dipping and coating operations.

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 have compressed gases? Yes / No / Unsure

The following standard provides requirements pertaining to safety relief devices and inspections when compressed gases are being used. In addition, this subpart provides specific requirements for 1910.102 acetylene, 1910.103—hydrogen, 1910.104—oxygen, and 1910.105—nitrous oxide that will also apply based on the compressed gas(es) being used.

<u>1910.101</u>—Compressed gases (general requirements).

Do employees use acetylene? Yes / No / Unsure

The following standard requires complying with referenced consensus standards including those found in 1910.6—<u>incorporation by reference</u>. It also provides requirements pertaining to transfer, storage, handling and use of acetylene cylinders, piped systems, generators and filling cylinders.

<u>1910.102</u>—Acetylene.

Do employees use hydrogen? Yes / No / Unsure

The following standard covers gaseous hydrogen systems [paragraph (b)] and liquefied hydrogen systems [paragraph (c)].

<u>Paragraph (b)</u> applies only to the installation of gaseous hydrogen systems on consumer premises where the hydrogen supply to the consumer premises originates outside the consumer premises and is delivered by mobile equipment; the installation of liquefied hydrogen systems on consumer premises but it does not apply to gaseous hydrogen systems having a total hydrogen content of less than 400 cubic feet, nor to hydrogen manufacturing plants or other establishments operated by the hydrogen supplier or his agent for the purpose of storing hydrogen and refilling portable containers, trailers, mobile supply trucks, or tank cars.

It provides requirements pertaining to containers, safety relief devices, piping, tubing, fittings, equipment

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assembly, markings, testing, location, design consideration, operating instructions, and maintenance.

<u>Gaseous hydrogen system</u> - A system in which the hydrogen is delivered, stored, and discharged in the gaseous form to consumer's piping. The system includes stationary or movable containers, pressure regulators, safety relief devices, manifolds, interconnecting piping and controls. The system terminates at the point where hydrogen at service pressure first enters the consumer's distribution piping.

<u>Paragraph (c)</u> applies to the installation of liquefied hydrogen systems on consumer premises but does not apply to liquefied hydrogen portable containers of less than 150 liters (39.63 gallons) capacity; nor to liquefied hydrogen manufacturing plants or other establishments operated by the hydrogen supplier or his agent for the sole purpose of storing liquefied hydrogen and refilling portable containers, trailers, mobile supply trucks, or tank cars.

It provides requirements pertaining to containers, safety relief devices, piping, tubing, fittings, equipment assembly, markings, testing, location, design consideration, operating instructions, and maintenance.

<u>1910.103</u>—Hydrogen.

Do employees use oxygen? Yes / No / Unsure

The following standard applies to the installation of bulk oxygen systems on industrial and institutional consumer premises. It does not apply to oxygen manufacturing plants or other establishments operated by the oxygen supplier or his agent for the purpose of storing oxygen and refilling portable containers, trailers, mobile supply trucks, or tank cars, nor to systems having capacities less than those stated below.

It provides requirements pertaining to location, distance between systems and exposures, storage containers, piping, tubing, fittings, safety relief devices, liquid oxygen vaporizers, equipment assembly and installation, operating instructions, and maintenance.

<u>Bulk oxygen system</u> - An assembly of equipment, such as oxygen storage containers, pressure regulators, safety devices, vaporizers, manifolds, and interconnecting piping, which has storage capacity of more than 13,000 cubic feet of oxygen, Normal Temperature and Pressure (NTP), connected in service or ready for service, or more than 25,000 cubic feet of oxygen (NTP) including unconnected reserves on hand at the site. The bulk oxygen system terminates at the point where oxygen at service pressure first enters the supply line. The oxygen containers may be stationary or movable, and the oxygen may be stored as gas or liquid.

<u>1910.104</u>—Oxygen.

Do employees use nitrous oxide? Yes / No / Unsure

The following standard states that the piped systems for the in-plant transfer and distribution of nitrous oxide shall be designed, installed, maintained, and operated in accordance with 1910.6 incorporation by reference.



<u>1910.105</u>—Nitrous oxide.

Do you use or store flammable liquids? Yes / No / Unsure

The following standard applies to the handling, storage, and use of flammable liquids with a flashpoint at or below 199.4 °*F unless otherwise noted. It does not apply to:*

- Bulk transportation of flammable liquids;
- Storage, handling, and use of fuel oil tanks and containers connected with oil burning equipment;
- Storage of flammable liquids on farms;
- Liquids without flashpoints that may be flammable under some conditions, such as certain halogenated hydrocarbons and mixtures containing halogenated hydrocarbons;
- *Mists, sprays, or foams, except flammable aerosols covered in paragraph (d) of this standard; or*
- Installations made in accordance with 1910.6—incorporated by reference.

<u>Flammable liquid</u> - *Any liquid having a flashpoint at or below 199.4* °*F* (93 °*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). When a Category 3 liquid with a flashpoint at or above 100 °F (37.8 °C) is heated for use to within 30 °F (16.7 °C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100 °F (37.8 °C).
- Category 4 shall include liquids having flashpoints above 140 °F (60 °C) and at or below 199.4 °F (93 °C). When a Category 4 flammable liquid is heated for use to within 30 °F (16.7 °C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100 °F (37.8 °C). Note: When liquid with a flashpoint greater than 199.4 °F (93 °C) is heated for use to within 30 °F (16.7 °C) of its flashpoint, it shall be handled in accordance with the requirements.

This standard has specific requirements depending on the use and/or location of the flammable liquids. For this reason, reference the following information regarding application of the standard.

<u>Paragraph (b)</u> provides requirements for tank storage (i.e., design and construction, pressure vessels, low pressure tanks, atmospheric tanks); installation of outside above ground tanks; installation of tanks inside of buildings; supports, foundations, and anchorage for all tank locations; sources of ignition; and testing.

<u>Paragraph (c)</u> provides the requirements for piping, valves and fittings. It does not apply to any of the following:

• Tubing or casing on any oil or gas wells and any piping connected directly thereto.



- Motor vehicle, aircraft, boat, or portable or stationary engines.
- *Piping within the scope of any applicable boiler and pressures vessel code.*

Paragraph (d) applies to container and/or portable tank storage if:

- The storage of flammable liquids in drums or other containers (including flammable aerosols) does not exceed 60 gallons individual capacity; and
- The portable tanks do not exceed 660 gallons individual capacity.

<u>*Paragraph (d)*</u> does not apply to the following:

- Storage of containers in bulk plants, service stations, refineries, chemical plants, and distilleries;
- Category 1, 2, or 3 flammable liquids in the fuel tanks of a motor vehicle, aircraft, boat, or portable or stationary engine;
- Flammable paints, oils, varnishes, and similar mixtures used for painting or maintenance when not kept for a period in excess of 30 days;
- Beverages when packaged in individual containers not exceeding 1 gallon in size.

It provides requirements for design, construction, and capacity of containers; design, construction, and capacity of storage cabinets; design and construction of inside storage rooms; storage inside building; storage outside buildings; and fire control.

Paragraph (e) applies to industrial plants if:

- The use of flammable liquids is incidental to the principal business, or
- Where flammable liquids are handled or used only in unit physical operations such as mixing, drying, evaporating, filtering, distillation, and similar operations which do not involve chemical reaction. Note: This paragraph does not apply to chemical plants, refineries, or distilleries.

Exception: Where portions of such plants involve chemical reactions such as oxidation, reduction, halogenation, hydrogenation, alkylation, polymerization, and other chemical processes, those portions of the plant shall be in accordance with paragraph (h) - processing plants.

It provides requirements for incidental storage or use of flammable liquids; unit physical operations; tank vehicle and tank car loading and unloading; fire control; sources of ignition; electrical; repairs to equipment; housekeeping; and general requirements (i.e., waste and residue, clear zone, access).

<u>Paragraph (f)</u> applies to bulk plants. It provides requirements for storage, piling containers, buildings (i.e., exits, ventilation), loading and unloading facilities (i.e., static protection, valves, separation), wharves (i.e., design and construction, hoses, piping, fittings, couplings), electrical equipment (i.e., classification), sources of ignition, drainage and waste disposal, and fire control.

<u>Paragraph (g)</u> applies to service stations. It provides the requirements for storage and handling, special enclosures, inside buildings, dispensing systems, remote pumping systems, marine service stations, electrical equipment, heating equipment, and drainage and waste disposal.



<u>Paragraph (h)</u> applies to those processing plants or buildings which contain chemical operations such as oxidation, reduction, halogenation, hydrogenation, alkylation, polymerization, and other chemical processes but shall not apply to chemical plants, refineries or distilleries. It includes requirements regarding location, processing building (i.e., construction, drainage, ventilation), liquid handling (i.e., storage, piping, valves, fittings, transfers, equipment), tank vehicle and tank car loading and unloading, fire control (i.e., portable fire extinguishers, alarm systems, maintenance), sources of ignition (i.e., electrical, maintenance, repair), and housekeeping.

<u>Paragraph (i)</u> applies to refineries, chemical plants, and distilleries. It provides requirements for storage tanks, fired and unfired pressure vessels, location of process units, and fire control.

<u>1910.106</u>—Flammable liquids.

Do you use flammable or combustible materials when spray finishing? Yes / No / Unsure

The following standard applies to flammable and combustible finishing materials when applied as a spray by compressed air, "airless" or "hydraulic atomization", steam, electrostatic methods, or by any other means in continuous or intermittent processes. The standard also covers the application of combustible powders by powder spray guns, electrostatic powder spray guns, fluidized beds, and electrostatic fluidized beds. It does not apply to outdoor spray application of buildings, tanks, or other similar structures, nor to small portable spraying apparatus not used repeatedly in the same location.

<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.

<u>Paragraph (b) - (h)</u> provides the requirements pertaining to spray booths (i.e., interiors, construction, floors, overspray collectors. cleaning, conveyors, illumination, frontal area), electrical and other sources of ignition (i.e., conformance, minimum separation, hot surfaces, wiring conformance, combustible residues and areas, lamps, grounding), ventilation (i.e., conformance, exhaust, belts, motors, ducts, discharge clearance, drying spaces), flammable liquids and liquids with a flashpoint greater than 199.4 °F (i.e., conformance, quantity, containers, transferring liquids, spraying containers, pipes and hoses, spray liquid heaters, pump relief, grounding), protection (i.e., conformance, sprinklers, portable fire extinguishers), operations and maintenance (i.e., conformance, spraying, cleaning, residue disposal, clothing storage, cleaning solvents, hazardous materials combinations, no smoking signs), and fixed electrostatic apparatus (i.e., conformance, type approval, location, support, insulators, grounding, safe distance, conveyors, fail-safe controls, guarding, ventilation, fire protection).

<u>Paragraph (i)</u> applies to electrostatic hand spraying equipment and applies to any equipment using electrostatically charged elements for the atomization and/or, precipitation of materials for coatings on articles, or for other similar purposes in which the atomizing device is hand-held and manipulated during the spraying operation. It includes the requirements pertaining to conformance, electrical support equipment, equipment approval and specifications, spray gun ground, grounding, maintenance of

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grounds, interlocks, and ventilation.

<u>Paragraph (j)</u> provides the requirements for drying, curing and fusion apparatus including conformance, alternate use, and adjacent system interlocked.

<u>Paragraph (k)</u> provides that automobile undercoating spray operations in garages, conducted in areas having adequate natural or mechanical ventilation, are exempt from the requirements pertaining to spray finishing operations, when using undercoating materials not more hazardous than kerosene (as listed by Underwriters' Laboratories in respect to fire hazard rating 30-40) or undercoating materials using only solvents listed as having a flash point in excess of 100 deg. F. Undercoating spray operations not conforming to these provisions are subject to all requirements of this section pertaining to spray finishing operations.

<u>Paragraph (1)</u> covers powder coating and includes requirements pertaining to electrical and other sources of ignition, ventilation, drying, curing and fusion equipment, operation and maintenance, electrostatic spraying equipment, and electrostatic fluidized beds.

<u>Paragraph (m)</u> provides requirements for organic peroxides and dual component coatings and includes requirements pertaining to conformance and smoking.

Also reference <u>paragraph (c)</u> of 1910.94—<u>ventilation</u> for requirements pertaining to spray finishing operations. It 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.

<u>1910.107</u>—Spray finishing using flammable and combustible materials.

Do you use or store explosives and/or blasting agents? Yes / No / Unsure

The following standard applies to the manufacture, keeping, having, storage, sale, transportation, and use of explosives, blasting agents, and pyrotechnics. This standard does not apply to the sale and use (public display) of pyrotechnics, commonly known as fireworks, nor to the use of explosives in the form prescribed by the official U.S. Pharmacopeia.

Note: The manufacture of explosives and the manufacture of pyrotechnics as defined below must meet the requirements of 1910.119—process safety management of highly hazardous chemicals.

This standard provides requirements for storage, transportation, use (i.e., including when used at piers, railway stations, and cars or vessels), blasting agents, water gel (slurry) explosives and blasting agents, storage of ammonium nitrate, small arms ammunition, small arms primers, and small arms propellants, and definitions applicable to this standard.

<u>Explosive</u> - Any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion, i.e., 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; see 49 CFR chapter I. The term "explosives" shall include all material which is classified as Class A, Class B, and Class C explosives by the U.S. Department of Transportation, and includes, but

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is not limited to dynamite, black powder, pellet powders, initiating explosives, blasting caps, electric blasting caps, safety fuse, fuse lighters, fuse igniters, squibs, cordeau detonant fuse, instantaneous fuse, igniter cord, igniters, small arms ammunition, small arms ammunition primers, smokeless propellant, cartridges for propellant-actuated power devices, and cartridges for industrial guns. Commercial explosives are those explosives which are intended to be used in commercial or industrial operations.

<u>Pyrotechnics</u> - Any combustible or explosive compositions or manufactured articles designed and prepared for the purpose of producing audible or visible effects which are commonly referred to as fireworks.

<u>Blasting agent</u> - Any material or mixture, consisting of a fuel and oxidizer, intended for blasting, not otherwise classified as an explosive and in which none of the ingredients are classified as an explosive, provided that the finished product, as mixed and packaged for use or shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

<u>1910.109</u>—Explosives and blasting agents.

Do you store or handle liquid petroleum (LP) gases? Yes / No / Unsure

The following standard includes requirements for internal combustion engines, fuel containers, and pertinent equipment for the use of liquefied petroleum gases as a motor fuel on easily movable, readily portable units including self-propelled vehicles.

It applies to systems utilizing containers constructed in accordance with DOT specifications and those that are not. It also applies to storage containers, and dispensing devices, and pertinent equipment in service stations where LP-gas is stored and is dispensed into fuel tanks of motor vehicles, and to the storage of portable containers not in excess of 1,000 pounds water capacity, filled or partially filled, at user location but not connected for use, or in storage for resale by dealers or resellers.

This standard does not apply to marine and pipeline terminals, natural gas processing plants, refineries, or tank farms other than those at industrial sites; LP-gas refrigerated storage systems; LP-gas when used with oxygen; LP-gas when used in utility gas plants; or to low-pressure (not in excess of one-half pound per square inch or 14 inches water column) LP-gas piping systems, and the installation and operation of residential and commercial appliances.

It includes requirements related to welding containers, marking containers, valves and accessories, hose specifications, safety relief valves, storage of containers, cylinder systems, safety devices, garaging vehicles, gas service stations, internal combustion engines, and LP gas as a motor fuel.

<u>1910.110</u>—Storage and handling of liquified petroleum gases.

Do you store or handle anhydrous ammonia? Yes / No / Unsure

The following standard applies to the design, construction, location, installation, and operation of anhydrous ammonia systems including refrigerated ammonia storage systems. However, this standard



does not apply to ammonia manufacturing plants or to refrigeration plants where ammonia is used solely as a refrigerant.

It includes requirements for basic rules, marking containers, storage areas, location of containers, piping, fittings, hose specifications, safety relief devices, charging containers, electrical equipment, design, compressors, tank motor vehicles, transfer of liquids, farm vehicles, and definitions.

<u>1910.111</u>—Storage and handling of anhydrous ammonia.

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 <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> - 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.

Highly hazardous chemical - A substance possessing toxic, reactive, flammable, or explosive properties.

<u>Normally unoccupied remote facility</u> - 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.



<u>1910.119</u>—Process safety management of highly hazardous chemicals.

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

The following standard provides requirements for three separate operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards. These include clean-up operations by an employer; emergency response; and treatment, storage and disposal facilities.

<u>Paragraph (a)</u> provides the scope, application, and definitions.

<u>Paragraphs (b) - (o)</u> provides requirements for clean-up operations and requires having a safety and health program, site characterization and analysis, site control, training, medical surveillance, engineering controls, work practices, and personal protective equipment for employee protection, monitoring, informational programs, handling drums and containers, decontamination, emergency response by employees at uncontrolled hazardous waste sites, illumination, sanitation of temporary workplaces, and new technology programs.

<u>Clean-up operation</u> - 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.

<u>1910.120</u>—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 provides requirements for three separate operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards. These include clean-up operations by an employer; emergency response; and treatment, storage and disposal facilities.

Paragraph (a) provides the scope, application, and definitions.

Treatment, storage and disposal requirements are provided in <u>paragraph (p)</u> provides the requirements for having a safety and health program, 1910.1200—<u>hazard communication (program)</u>, medical surveillance program, decontamination program, new technology program, material handling program, training program, and an emergency response plan.

<u>1910.120</u>—Hazardous waste operations and emergency response.

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

The following standard provides requirements for three separate operations, unless the employer can

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demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards. These include clean-up operations by an employer; emergency response; and treatment, storage and disposal facilities.

Paragraph (a) provides the scope, application, and definitions.

<u>Paragraph (q)</u> provides requirements for emergency response operations and requires an emergency response plan, procedures for handling emergency response, skilled support personnel, specialist employees, training, trainers, refresher training, medical surveillance and consultation, chemical protective clothing, and post-emergency response operations.

<u>Emergency response or responding to emergencies</u> - 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.

Note: 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.

Post-emergency response operations require that upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the clean-up shall comply with one of the following:

- Meet all the requirements of <u>paragraphs (b)</u> through (o); or
- Where the clean-up is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following:1910.38—<u>emergency</u> <u>action plan</u>, 1910.134—<u>respiratory protection</u>, 1910.1200—<u>hazard communication</u>, and other appropriate safety and health training made necessary by the tasks they are expected to perform such as personal protective equipment and decontamination procedures.

If you have employees that respond to hydrocarbon fuel leaks, the North Carolina state-specific standard, 13 NCAC 07F .0103—<u>hazardous materials</u>, also adds a new level of training to <u>paragraph (q)(6)</u> for individuals who respond to hydrocarbon fuel leaks; "first responder operations plus level".

<u>Responder operations plus level</u> - First responders at operations plus level are individuals who respond to hydrocarbon fuel tank leaks where the leaking tanks contain a hydrocarbon fuel which is used to propel the vehicle on which the tank is located. Only those vehicles designed for highway use or those used for industrial, agricultural or construction purposes are covered.

<u>1910.120</u>—Hazardous waste operations and emergency response.



Do you have a dipping and coating operation that contains a substance other than water? Yes / No / Unsure

The following standards provides the table of contents for this subpart.

1910.122—Table of contents.

Do you have a dipping and coating operation that contains a substance other than water? Yes / No / Unsure

The following standard provides the coverage and definitions for dipping and coating operations. It applies when you use the liquid (other than water) in the tank or its vapor to:

- Clean an object;
- *Coat an object;*
- *Alter the surface of an object; or*
- Change the character of an object.

<u>Dip tank</u> - A container holding a liquid other than water and that is used for dipping or coating. An object may be immersed (or partially immersed) in a dip tank or it may be suspended in a vapor coming from the tank.

<u>1910.123</u>—Dipping and coating operations: Coverage and definitions.

Do you have a dipping and coating operation that contains a substance other than water? Yes / No / Unsure

The following standard provides general requirements for dipping and coating operations. It provides the requirements for construction, ventilation, chemical reaction, exhaust hoods, confined spaces, first aid procedures, and hygiene facilities (i.e., emergency shower, eyewash, inspections, respirators, ventilation).

<u>1910.124</u>—General requirements for dipping and coating operations.

Do you have a dipping and coating operation that uses flammable or combustible liquids? Yes / No / Unsure

The following standard provides dipping and coating requirements related to noncombustible material, overflow piping, bottom drains, use of conveyor systems, fire protection, and temperatures.

<u>1910.125</u>—Additional requirements for dipping and coating operations that use flammable or combustible liquids.

Do you have a dipping and coating operation that apply to any of the following: hardening or

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tempering tanks; flow coating; roll coating, roll spreading or roll impregnating; vapor or degreasing tanks; cyanide tanks; spray cleaning tanks or degreasing tanks; or electrostatic paint detearing? Yes / No / Unsure

The following standard provides additional dipping and coating requirements for hardening tanks, tempering tanks, flow coating, roll coating, roll spreading, roll impregnating, vapor degreasing tanks, cyanide tanks, electrostatic paint detearing operations.

<u>1910.126</u>—Additional requirements for special dipping and coating operations.

SUBPART H APPENDICES:

Process safety management:

1910.119, appendix A provides the list of highly hazardous chemicals, toxics and reactives (mandatory).

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

1910.119, <u>appendix C</u> provides compliance guidelines and recommendations for PSM.

HAZWOPER:

1910.120, <u>appendix A</u> provides personal protective equipment test methods.

1910.120, <u>appendix B</u> provides general description and discussion of the levels of protection.

1910.120, appendix C provides compliance guidelines.

1910.120, appendix E provides training curriculum guidelines.

SUBPART H REFERENCES:

Ammonia and ammonia refrigerationCompetent personCompressed gasesDipping and coatingEmergency action plansEmployee exposure and medical recordsExplosivesEyewash stations and emergency showersFire prevention plansFlammable liquidsHazard communicationHAZWOPER



<u>Organic solvents</u> <u>Personal protective equipment</u> <u>Portable fire extinguishers</u> <u>Process safety management</u> <u>Pyrotechnics</u> <u>Respiratory protection</u>



Subpart I—Personal Protective Equipment

Does "Subpart I—Personal Protective Equipment" apply to you?

This subpart provides the standards for personal protective equipment (PPE) for eye and face protection, head protection, foot protection, hand protection, electrical protective devices, respiratory protection and personal fall protection devices.

Note: 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 PPE? Yes / No / Unsure

The following standard covers all PPE including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers. They are to be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. It provides requirements for a written hazard assessment, training, and payment for protective equipment.

1910.132—General requirements.

Do employees need eye and face protection? Yes / No / Unsure

Based on the PPE hazard assessment (Reference 1910.132—<u>general requirements</u>), the following standard applies when employees are 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 provides the general requirements (i.e., corrective lenses, filter lenses) and criteria for protective eye and face protection (i.e., consensus standards).

<u>1910.133</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. Also reference 1910.132—general requirements.

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 (Reference 1910.1020 access to employee exposure and medical records).

Note: For voluntary users of respirators, reference paragraph(c)(2)(i). It states: 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 <u>appendix D</u> 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</u> - 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 - An atmosphere with an oxygen content below 19.5% by volume.

<u>Air-purifying respirator</u> - 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> - 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> - *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>1910.134</u>—Respiratory protection.

Do employees need head protection? Yes / No / Unsure

Based on the PPE hazard assessment (Reference 1910.132—<u>general requirements</u>), the following standard applies when employees are exposed to head injury from falling objects or when they work near exposed electrical conductors which could contact the head. This standard provides general head protection requirements (i.e., falling objects, electrical shock) along with criteria for protective devices (i.e., consensus standards).

<u>1910.135</u>—Head protection.

Do employees need foot protection? Yes / No / Unsure



Based on the PPE hazard assessment (Reference 1910.132—<u>general requirements</u>), the following standard applies when employees are working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or when the use of protective footwear will protect the affected employee from an electrical hazard (such as a static-discharge or electric-shock hazard that remains after the employer takes other necessary protective measures). This standard provides general requirements and footwear criteria (i.e., consensus standards).

<u>1910.136</u>—Foot protection.

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

Based on the PPE hazard assessment (Reference 1910.132—<u>general requirements</u>), the following standard applies when employees are exposed to electrical hazards where the use of protective devices such as rubber insulating blankets, rubber insulating matting, rubber insulating covers, rubber insulating line hose, rubber insulating gloves, or rubber insulating sleeves would protect the employee. This standard provides design requirements for specific types of electrical protective devices and other types of electrical protective equipment, along with in-service care and use of electrical protective equipment.

<u>1910.137</u>—Electrical protective devices.

Do employees need hand protection? Yes / No / Unsure

Based on the PPE hazard assessment (Reference 1910.132—<u>general requirements</u>), the following standard applies when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; or harmful temperature extremes. It provides general hand protection requirements, and that the selection should be based on task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

1910.138—Hand protection.

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

The following standard establishes performance, care, and use criteria for all personal fall protection systems. It provides the general requirements (i.e., connectors, lanyards, lifelines, snaphooks, anchorages), personal fall arrest systems, and positioning systems. If your fall hazards can be addressed by using guardrail systems, also refer to subpart D—walking-working surfaces.

<u>Personal fall arrest system (PFAS)</u> - A system used to arrest an employee in a fall from a walkingworking surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these.

<u>Positioning system (work-positioning system)</u> - A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface,



such as a wall or windowsill, and work with both hands free. Positioning systems also are called "positioning system devices" and "work-positioning equipment."

<u>Personal fall protection system</u> - A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.

<u>1910.140</u>—Personal fall protection systems.

SUBPART I APPENDICES:

PPE general requirements:

1910.132, <u>appendix B</u> provides non-mandatory compliance guidelines for hazard assessment and personal protective equipment selection.

Respiratory protection:

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, <u>appendix C</u> provides the medical questionnaire.

1910.134, appendix D provides mandatory information for employees using respirators when not required under standard.

Personal fall protection systems:

1910.140, appendix C provides guidance on personal fall protection systems.

SUBPART I REFERENCES:

Electrical safety

Employee exposure and medical records

Fall protection

Flammable liquids

Hierarchy of controls

Organic solvents

Personal protective equipment

Radiation, ionizing and non-ionizing

Respiratory protection

Walking-working surfaces



Subpart J—General Environmental Controls

Does "<u>Subpart J</u>—General Environmental Controls" apply to you?

This subpart provides the standards for sanitation, marking physical hazards, specifications for signs and tags, temporary labor camps, permit-required confined spaces, and the control of hazardous energy (lockout/tagout).

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 have potable water, toilet facilities, waste disposal, showers, and/or handle food? Yes / No / Unsure

The following standard includes requirements for housekeeping, potable water, bathrooms, showers, vermin control, food handling, and waste disposal.

<u>1910.141</u>—Sanitation.

Do you have temporary labor camps? Yes / No / Unsure

The following standard includes requirements for the site (i.e., camps to be adequately drained, of an adequate size), shelter (i.e., construction, seven foot ceilings, sleeping quarters, living quarters, cooking facilities, heating and cooling), water supply (i.e., convenient, water outlets), toilet facilities (i.e., capacity, accessible, location, lighting), sewage disposal facilities, laundry, handwashing and bathing facilities (i.e., ratios, adequate supply of running water, cleanliness), lighting, refuse disposal, construction and operation of kitchens, dining hall, and feeding facilities, first aid, and reporting communicable diseases. Note: This standard typically applies to the agriculture industry.

<u>1910.142</u>—Temporary labor camps.

Do you have physical hazards or dangers at the workplace? Yes / No / Unsure

The following standard provides the color codes to be used for fire (red), danger (red), stop (red); physical hazards (yellow) and caution (yellow).

<u>1910.144</u>—Safety color code for marking physical hazards.

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

The following standard provides specifications that cover all safety signs except those designed for



streets, highways, and railroads. They also do not apply to plant bulletin boards or to safety posters.

<u>1910.145</u>—Specifications for accident prevention signs and tags.

Do you have permit-required confined spaces? Yes / No / Unsure

The following standard provides the requirements for the employer to evaluate all confined spaces and determine if they are permit-required confined spaces.

If employees are not going to enter permit spaces, then after you have evaluated the spaces, you need to inform exposed employees by posting danger signs, or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces and take effective measures to prevent employees from entering the permit spaces.

If employees enter permit spaces, then all the requirements of the standard are applicable This standard provides general requirements (i.e., evaluating spaces, signage, entry, non-entry, alternate procedures), and requirements for a written permit space program, permit system, entry permits, training, duties of authorized entrants, duties of attendants, duties of entry supervisors, rescue and emergency services, and employee participation.

A confined space:

- *Is large enough and so configured that an employee can bodily enter and perform assigned work; and*
- *Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and*
- Is not designed for continuous employee occupancy.

A <u>permit-required confined space</u> must have 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.

<u>1910.146</u>—Permit-required confined spaces (permit space).

Do employees service or maintain machines and equipment that could energize or release stored energy? Yes / No / Unsure

The following standard applies to the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy, could harm employees.



<u>Energy source</u> - Can be electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other source of energy.

Normal production operations are not covered by this standard (Reference subpart O—<u>machinery and</u> <u>machine guarding</u>). Servicing and/or maintenance which takes place during normal production operations is covered by this standard only if:

- An employee is required to remove or bypass a guard or other safety device; or
- An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.

<u>Paragraph (a)(2)(ii)</u>: Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection (Reference subpart O—machinery and machine guarding).

This standard does not cover the following:

- <u>Construction</u> and <u>agriculture</u> employment;
- *Employment covered by shipyard employment, marine terminals, and longshoring;*
- Installations under the exclusive control of electric utilities for the purpose of power generation, transmission and distribution, including related equipment for communication or metering;
- Exposure to electrical hazards from work on, near, or with conductors or equipment in electricutilization installations, which is covered by subpart S—<u>electrical</u>; and
- Oil and gas well drilling and servicing.

This standard does not apply to the following:

- Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or startup of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.
- Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines, provided that the employer demonstrates that:
 - *continuity of service is essential;*
 - shutdown of the system is impractical;
 - o documented procedures are followed, and
 - o special equipment is used which will provide proven effective protection for employees.

This standard provides the requirements for a written energy control program, procedures, training, inspections, locks and tags, and testing and positioning machines and equipment. <u>Servicing and/or maintenance</u> - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These



activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

<u>Energy isolating device</u> - A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

<u>1910.147</u>—The control of hazardous energy (lockout/tagout).

SUBPART J APPENDICES:

Accident prevention signs and tags:

1910.145, appendix A for recommended color coding.

Confined space:

1910.146, appendix B provides procedures for atmospheric testing.

1910.146, appendix C provides example permit-required confined space programs.

1910.146, <u>appendix D</u> provides sample permits.

1910.146, appendix E provides sewer system entry guidance.

1910.146, <u>appendix F</u> provides rescue team or rescue service evaluation criteria.

Lockout/tagout:

1910.147, <u>appendix A</u> contains typical minimal lockout procedures.

SUBPART J REFERENCES:

<u>Confined spaces</u> <u>Electrical safety</u> <u>Flammable liquids</u> <u>Hazard communication</u> <u>Lockout/tagout</u> <u>Sanitation</u> <u>Signs, markings and tags</u> Welding and cutting



Subpart K—Medical and First Aid

Does "Subpart K—Medical and First Aid" apply to you?

This subpart contains standards for medical services and first aid for the workplace.

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

Yes / No / Unsure If yes, please continue.

Does your workplace have hazards that could cause serious injuries or have injurious corrosive materials? Yes / No / Unsure

The following standard requires that in the absence of an infirmary, clinic, or hospital in near proximity to the workplace, a person or persons shall be adequately trained to render first aid. It also requires quick drenching or flushing of the eyes and body when a person may be exposed to injurious corrosive materials.

Note: Employees that are designated by their employer to provide first aid as a collateral job duty are covered under 1910.1030—*bloodborne pathogens.*

<u>Near proximity</u> (interpretation) - "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. Medical literature establishes that, for serious injuries such as those involving stopped breathing, cardiac arrest, or uncontrolled bleeding, first aid treatment must be provided within the first few minutes to avoid permanent medical impairment or death. Accordingly, in workplaces where serious accidents such as those involving falls, suffocation, electrocution, or amputation are possible, emergency medical services must be available within 3-4 minutes, if there is no employee on the site who is trained to render first aid. OSHA does exercise discretion in enforcing the first aid requirements in particular cases. For example, OSHA recognizes that in workplaces, such as offices, where the possibility of such serious work-related injuries is less likely, a longer response time of up to 15 minutes may be reasonable."

<u>1910.151</u>—Medical services and first aid.

SUBPART K APPENDICES:

Medical services and first aid:

1910.151, appendix A provides guidance on first aid kits.

SUBPART K REFERENCES:

<u>Bloodborne pathogens</u> Medical services and first aid



Recording and reporting



Subpart L—Fire Protection

Does "<u>Subpart L</u>—Fire Protection" apply to you?

This subpart provides the standards for fire brigades, portable fire extinguishers, standpipe, and hose systems, extinguishing systems, fire detection systems and employee alarm systems installed to meet the fire protection requirements.

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 have fire brigades, portable fire extinguishers, standpipe and hose systems, extinguishing systems, fire detection systems and employee alarm systems? Yes / No / Unsure

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

<u>Fire brigade</u> - *An organized group of employees who are knowledgeable, trained, and skilled in at least basic firefighting operations.*

<u>1910.155</u>—Scope, application, and definitions applicable to this subpart.

Do you have a fire brigade or are a fire department established by an employer? Yes / No / Unsure

The following standard applies to fire brigades, industrial fire departments and private or contractual type fire departments whenever they are established by an employer. The requirements of this standard do not apply to airport crash rescue or forest firefighting operations.

This standard provides the requirements for organization (i.e., organizational statement, physician's certificate, assigned personnel), training and education, firefighting equipment, protective clothing, and respiratory protection.

<u>1910.156</u>—Fire brigades.

Do you have and/or are employees required to use portable fire extinguishers? Yes / No / Unsure

The following standard applies to fire extinguishers that are provided for employee use. It provides general requirements (i.e., providing fire extinguishers, mounting, locating, identifying, accessibility, maintaining), along with selection and distribution, inspections, maintenance, and hydrostatic testing.

If fire extinguishers are provided but are not intended for employee use, then only the requirements of <u>paragraphs (e)</u> - inspection, maintenance, and testing, and <u>(f)</u> - hydrostatic testing are applicable.



Per <u>paragraph (a)</u>, an emergency action plan (Reference 1910.38—<u>emergency action plans</u>) is required when fire extinguishers are provided but are not intended for employee use. Additionally, a fire prevention plan (Reference 1910.39—<u>fire prevention plans</u>) is required when fire extinguishers are provided but are not intended for employee use.

Exemptions: Where the employer has established and implemented a written fire safety policy which requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal and which includes an emergency action plan and a fire prevention plan which meet the requirements of the applicable standards, and when extinguishers are not available in the workplace, the employer is exempt from all requirements of this standard unless a specific standard in <u>general</u> industry requires that a portable fire extinguisher be provided.

The following standards reference having portable fire extinguishers: 1910.39—<u>fire prevention plans</u>, 1910.110—<u>storage and handling of liquefied petroleum gases</u>, 1910.156—<u>fire brigades</u>, 1910.178—<u>powered industrial trucks</u>, 1910.252—welding, cutting, and brazing, <u>general requirements</u>, and 1910.266—<u>logging operations</u>.

Where the employer has an <u>emergency action plan</u> (Reference 1910.38) which designates certain employees to be the only employees authorized to use the available portable fire extinguishers, and which requires all other employees in the fire area to immediately evacuate the affected work area upon the sounding of the fire alarm, the employer is exempt from the distribution requirements in <u>paragraph (d)</u>.

<u>1910.157</u>—Portable fire extinguishers.

Do you have standpipe and hose systems? Yes / No / Unsure

The following standard applies if small hose, Class II or Class III standpipe systems are installed to meet the requirements of a particular OSHA standard (i.e., 1910.157—portable fire extinguishers). This standard provides the requirements for equipment, protection of the standpipes, water supply, tests, and maintenance. This standard does not apply to Class I standpipe systems.

<u>1910.158</u>—Standpipe and hose systems.

Do you have automatic sprinkler systems that were installed to meet a particular OSHA standard? Yes / No / Unsure

The following standard provides the requirements for design, maintenance, acceptance tests, water supplies, hose connections for firefighting use, protection of piping, drainage, sprinklers, sprinkler alarms, sprinkler spacing, records, and hydraulically designed systems. Automatic sprinkler systems installed in workplaces, but not required by OSHA standards, are exempt from the requirements of this standard.

The following standards (not all inclusive) reference having an automatic sprinkler system: 1910.37— <u>maintenance, safeguards, and operational features for exit routes</u>, 1910.107—<u>spray finishing</u> <u>using flammable and combustible materials</u>, and 1910.109—<u>explosives and blasting agents</u>.

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>Sprinkler system</u> - A system of piping designed in accordance with fire protection engineering standards and installed to control or extinguish fires. The system includes an adequate and reliable water supply, and a network of specially sized piping and sprinklers which are interconnected. The system also includes a control valve and a device for actuating an alarm when the system is in operation.

<u>1910.159</u>—Automatic sprinkler systems.

Do you have fixed extinguishing systems that were installed to meet an OSHA standard or if not, by the means of their operation, they may expose an employee to possible injury, illness or death caused by the extinguishing agent? Yes / No / Unsure

The following standard provides the requirements for design, employee alarms (Reference 1910.165 employee alarm systems), safeguards, inspections, warning signs, maintenance, records, personal protective equipment, automatic detections systems (Reference 1910.164—fire detection systems), and having an emergency action plan (Reference 1910.38—emergency action plans).

Fixed extinguishing system - *A permanently installed system that either extinguishes or controls a fire at the location of the system.*

The following standards (not all inclusive) reference having a fixed extinguishing system: 1910.37 maintenance, safeguards, and operational features for exit routes, and 1910.106—flammable liquids.

<u>1910.160</u>—Fixed extinguishing systems, general.

Do you have a dry chemical fixed extinguishing system (all fixed extinguishing systems, using dry chemical as the extinguishing agent) that was installed to meet a particular OSHA standard? Yes / No / Unsure

The following standard provides specific requirements for dry chemical agents, employee alarms (Reference 1910.165—<u>employee alarm systems</u>), annual sampling of dry chemical, and rate of application.

Also reference 1910.160—<u>fixed extinguishing systems, general</u> as it provides the general requirements for fixed extinguishing systems including design, employee alarms (Reference 1910.165—<u>employee alarm</u> <u>systems</u>), safeguards, inspections, warning signs, maintenance, records, personal protective equipment, automatic detections systems (Reference 1910.164—<u>fire detection systems</u>), and 1910.38—<u>emergency</u> <u>action plans</u>.

<u>Dry chemical</u> - An extinguishing agent composed of very small particles of chemicals such as, but not limited to, sodium bicarbonate, potassium bicarbonate, urea-based potassium bicarbonate, potassium chloride, or monoammonium phosphate supplemented by special treatment to provide resistance to packing and moisture absorption (caking) as well as to provide proper flow capabilities. Dry chemical does not include dry powders.

The following standard (not all inclusive) references having a fixed extinguishing system: 1910.106—



flammable liquids.

<u>1910.161</u>—Fixed extinguishing systems, dry chemical.

Do you have a gaseous agent fixed extinguishing system (all fixed extinguishing systems, using a gas as the extinguishing agent) that was installed to meet a particular OSHA standard? Yes / No / Unsure

The following standard provides specific requirements for gaseous agents including type of approved for system's application, employee exposures, and Halon systems.

Also reference 1910.160—<u>fixed extinguishing systems, general</u> as it provides the general requirements for fixed extinguishing systems including design, employee alarms (Reference 1910.165—<u>employee alarm</u> <u>systems</u>), safeguards, inspections, warning signs, maintenance, records, personal protective equipment, automatic detections systems (Reference 1910.164—<u>fire detection systems</u>), and 1910.38—<u>emergency</u> <u>action plans</u>.

<u>Gaseous agent</u> - A fire extinguishing agent which is in the gaseous state at normal room temperature and pressure. It has low viscosity, can expand or contract with changes in pressure and temperature, and has the ability to diffuse readily and to distribute itself uniformly throughout an enclosure.

The following standard (may not be all inclusive) references having a fixed extinguishing system: 1910.106—flammable liquids.

<u>1910.162</u>—Fixed extinguishing systems, gaseous agent.

Do you have a fixed extinguishing system that uses water spray and foam (all fixed extinguishing systems, using water or foam solution as the extinguishing agent) that was installed to meet a particular OSHA standard? Yes / No / Unsure

The following standard provides requirements for water spray and foam including effectiveness of the systems and egress. This standard does not apply to automatic sprinkler systems.

Also reference 1910.160—<u>fixed extinguishing systems, general</u> as it provides the general requirements for fixed extinguishing systems including design, employee alarms (Reference 1910.165—<u>employee alarm</u> <u>systems</u>), safeguards, inspections, warning signs, maintenance, records, personal protective equipment, automatic detections systems (Reference 1910.164—<u>fire detection systems</u>), and 1910.38—<u>emergency</u> action plans.

<u>Foam</u> - A stable aggregation of small bubbles which flow freely over a burning liquid surface and form a coherent blanket which seals combustible vapors and thereby extinguishes the fire.

The following standard (may not be all inclusive) references having a fixed extinguishing system: 1910.106—flammable liquids.



<u>1910.163</u>—Fixed extinguishing systems, water spray and foam.

Do you have an automatic fire detection system that was installed to meet the requirements of a particular OSHA standard? Yes / No / Unsure

The following standard provides requirements for installation and restoration, maintenance and testing, protection of fire detectors, response time, number, location and spacing of detecting devices, and having an emergency action plan (Reference 1910.38—<u>emergency action plans</u>.

The following standard (may not be all inclusive) references having an automatic fire detection system: 1910.160—fixed extinguishing systems, general.

<u>1910.164</u>—Fire detection systems.

Do you have an employee alarm system that was installed to meet the requirements of a particular OSHA standard? Yes / No / Unsure

The following standard pertains to maintenance, testing and inspections of alarm systems, and applies to all local fire alarm signaling systems used for alerting employees regardless of the other functions of the system.

It does not apply to those discharge or supervisory alarms required on various fixed extinguishing systems or to supervisory alarms on fire suppression, alarm or detection systems unless they are intended to be employee alarm systems.

The following standards (may not be all inclusive) references having an employee alarm system: 1910.38— <u>*emergency action plans*</u> and 1910.120—<u>*HAZWOPER*</u>.

<u>1910.165</u>—Employee alarm systems.

SUBPART L APPENDICES:

Subpart L, appendix A provides fire protections guidance for this subpart.

Subpart L, <u>appendix B</u> provides national consensus standards applicable to this subpart.

Subpart L, appendix C provides fire protection references for further information.

Subpart L, appendix D provides availability of publications incorporated by reference in section 1910.156 fire brigades.

Subpart L, <u>appendix E</u> provides test methods for protective clothing.

SUBPART L REFERENCES:

Emergency action plans

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.



Employee alarm system

Exits and exit routes

<u>Fire brigades</u>

Fire prevention plans

Fire protection and prevention

HAZWOPER

Logging

Personal protective equipment

Portable fire extinguishers

Respiratory protection



Subpart M—Compressed Gas and Compressed Air Equipment

Does "<u>Subpart M</u>—Compressed Gas and Compressed Air Equipment" apply to you?

This subpart provides standards for compressed air receivers, and other equipment used in providing and utilizing compressed air for performing operations such as cleaning, drilling, hoisting, and chipping. It 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. This section is not intended to apply to compressed air machinery and equipment used on transportation vehicles such as steam railroad cars, electric railway cars, and automotive equipment.

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

Yes / No / Unsure If yes, please continue.

Do you have compressed air receivers and other equipment that are used in providing and utilizing compressed air for performing operations such as cleaning, drilling, hoisting, and chipping? Yes / No / Unsure

The following standard provides the requirements for safety values (i.e., consensus standards), and installation and equipment requirements (i.e., safety appliances, testing, drains and traps, gauges, and values).

<u>1910.169</u>—Air receivers.

SUBPART M REFERENCES:

Compressed air and compressed air equipment



Subpart N—Materials Handling and Storage

Does "Subpart N—Materials Handling and Storage" apply to you?

This subpart contains standards for handling materials and storage which includes powered industrial trucks (forklifts), overhead and gantry cranes, crawler locomotive and truck cranes, derricks, helicopters and slings. This subpart also provides the standards for servicing multi-piece and single piece rim wheels.

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

Yes / No / Unsure If yes, please continue.

Does your workplace include handling of materials and storage? Yes / No / Unsure

The following standard applies to all materials handling and storage operations. It provides requirements for clearance, housekeeping, secure storage, and guarding.

1910.176—Handling materials-general.

Do employees service multi-piece or single piece rim wheels used on large vehicles? Yes / No / Unsure

The following standard applies to the servicing of multi-piece and single piece rim wheels used on large vehicles such as trucks, tractors, trailers, buses, and off-road machines. It does not apply to the servicing of rim wheels used on automobiles, or on pickup trucks and vans utilizing automobile tires or truck tires designated "LT".

It provides the requirements pertaining to employee training, tire servicing equipment, wheel component acceptability, and safe operating procedures.

<u>Multi-piece rim wheel</u> - The assemblage of a multi-piece wheel with the tire tube and other components.

<u>Single piece rim wheel</u> - The assemblage of single piece rim wheel with the tire and other components.

<u>1910.177</u>—Servicing multi-piece and single piece rim wheels.

Do employees operate fork trucks, tractors, platform lift trucks, motorized hand trucks, or other specialized industrial trucks powered by electric motors or internal combustion engines? Yes / No / Unsure

The following standard contains safety requirements relating to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial

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.



trucks powered by electric motors or internal combustion engines.

This standard does not apply to compressed air or nonflammable compressed gas-operated industrial trucks, nor to farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

This standard provides requirements pertaining to designations, designated locations, converted industrial trucks, safety guards, fuel handling and storage, changing and charging storage batteries, lighting, control of noxious gases and fumes, dockboards, trucks and railroad cars, operator training (i.e., certification, refresher), truck operations, traveling, loading, operation of truck, and maintenance.

<u>1910.178</u>—Powered industrial trucks.

Do employees operate overhead or gantry cranes? Yes / No / Unsure

The following standard includes semigantry cranes, cantilever gantry cranes, wall cranes, storage bridge cranes, and others having the same fundamental characteristics. These cranes are grouped because they all have trolleys and similar travel characteristics.

This standard provides general requirements (i.e., modifications, wind indicators, load markings, clearances), cabs, footwalks and ladders, stops, bumpers, rail sweeps, and guards, brakes, electric equipment (Reference subpart S—<u>electrical</u>), hoisting equipment, inspections, warning devices, testing, maintenance, rope inspection, handling the load, and other requirements (i.e., ladders, cabs, fire extinguishers). It also provides definitions such as:

<u>Crane</u> - A machine for lifting and lowering a load and moving it horizontally, with the hoisting mechanism an integral part of the machine. Cranes whether fixed or mobile are driven manually or by power.

<u>Gantry crane</u> - A crane similar to an overhead crane except that the bridge for carrying the trolley or trolleys is rigidly supported on two or more legs running on fixed rails or other runway.

<u>Overhead crane</u> - A crane with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.

<u>1910.179</u>—Overhead and gantry cranes.

Do employees operate crawler, locomotive, or truck cranes? Yes / No / Unsure

The following standard applies to crawler cranes, locomotive cranes, wheel mounted cranes of both truck and self-propelled wheel type, and any variations thereof which retain the same fundamental characteristics. It includes only cranes of the above types, which are basically powered by internal combustion engines or electric motors, and which utilize drums and ropes. Cranes designed for railway and automobile wreck clearances are excepted.



This standard provides general requirements (i.e., designated personnel), load ratings, inspection classification, testing, maintenance procedures, rope inspections, handling the load, and other requirements (i.e., rail clamps, ballast, counterweights, refueling, fire extinguishers), and operations near overhead lines [Reference 1910.333—selection and use of work practices, paragraph (c)(3)].

<u>Crawler crane</u> - Consists of a rotating superstructure with power plant, operating machinery, and boom, mounted on a base, equipped with crawler treads for travel. Its function is to hoist and swing loads at various radii.

<u>Locomotive crane</u> - Consists of a rotating superstructure with power-plant, operating machinery and boom, mounted on a base or car equipped for travel on railroad track. It may be self-propelled or propelled by an outside source. Its function is to hoist and swing loads at various radii.

<u>Truck crane</u> - Consists of a rotating superstructure with powerplant, operating machinery and boom, mounted on an automotive truck equipped with a powerplant for travel. Its function is to hoist and swing loads at various radii.

<u>1910.180</u>—Crawler locomotive and truck cranes.

Do employees operate derricks? Yes / No / Unsure

The following standard applies to guy, stiffleg, basket, breast, gin pole, Chicago boom and A-frame derricks of the stationary type, capable of handling loads at variable reaches and powered by hoists through systems of rope reeving, used to perform lifting hook work, single or multiple line bucket work, grab, grapple, and magnet work. Derricks may be permanently installed for temporary use as in construction work. It also applies to any modification of these types which retain their fundamental features, except for floating derricks.

The standard provides the requirements pertaining to load ratings, inspections, testing, maintenance, rope inspections, operations (designated person), handling the load, guards, hooks, fire extinguishers, refueling, cabs, and operating enclosures.

<u>Derrick</u> - An apparatus consisting of a mast or equivalent member held at the head by guys or braces, with or without a boom, for use with a hoisting mechanism and operating ropes.

<u>1910.181</u>—Derricks.

Do employees operate helicopters? Yes / No / Unsure

The following standard has requirements pertaining to briefings, personal protective equipment, housekeeping, weight limitations, ground lines, use of slings, approach distances, visibility, signal systems, fires, use of ground personnel and communications.

1910.183—Helicopters.



Do employees use slings with other material handling equipment? Yes / No / Unsure

The following standard applies to those used in conjunction with other material handling equipment for the movement of material by hoisting, in employments covered by the general industry standards. The types of slings covered are 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).

This standard covers specific sling types and includes requirements pertaining to safe operating practices, inspections, sling identification, attachments, proof testing, repairs, reconditioning, deformed attachments, effects of and abnormal wear, minimum sling lengths, markings, handles, removal from service, splicing, use, environmental conditions, and fittings.

Sling - *An assembly which connects the load to the material handling equipment.*

<u>1910.184</u>—Slings.

SUBPART N APPENDICES:

Multi-piece and single piece rim wheels:

1910.177, appendix A provides information on trajectory.

Powered industrial trucks:

1910.178, appendix A provides guidance on stability.

SUBPART N REFERENCES:

<u>Cranes and derricks</u> <u>Crawler locomotive and truck cranes</u> <u>Electrical safety</u> <u>Hoists</u> <u>Illumination</u> <u>Materials handling and storage</u> <u>Noise</u> <u>Overhead and gantry cranes</u> <u>Personal protective equipment</u> <u>Powered industrial trucks</u>



Subpart O—Machinery and Machine Guarding

Does "<u>Subpart O</u>—Machinery and Machine Guarding" apply to you?

This subpart contains standards for guarding, using, and maintaining machines and equipment.

Note: 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 or maintain machinery and equipment? Yes / No / Unsure

The following standard provides definitions applicable to this subpart.

<u>1910.211</u>—Definitions.

Do you have machinery and equipment that exposes employees to hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks? Yes / No / Unsure

The following standard provides requirements for having guarding affixed to machinery, point of operation guarding, anchoring fixed equipment, guarding fan blades, and using special hand tools for machinery and equipment.

Guarding methods include barrier guards, restraints, presence sensing devices, two-hand tripping devices, foot controls, and pullbacks. Also reference subpart P—<u>hand and portable powered tools and other hand-held equipment</u>.

<u>Point of operation</u> - That point at which cutting, shaping, boring, or forming is accomplished upon the stock and shall include such other points as may offer a hazard to the operator in inserting or manipulating the stock in the operation of the machine.

<u>1910.212</u>—General requirements for all machines.

Do employees use woodworking machinery? Yes / No / Unsure

Woodworking machinery includes rip saws, circular saws, hand-fed ripsaws, hand-fed crosscut table saws, circular resaws, swing cut-off saws, self-feed circular saws, radial saws, bandsaws and band resaws, jointers, tenoning machines, wood shapers and similar equipment, boring and mortising machines, planing, molding, sticking, and matching machines, sanding machines, profile and swing-head lathes and wood heel turning machine, veneer cutters and wringers, and miscellaneous woodworking machines.

This standard provides specific requirements for the different listed pieces of equipment and includes

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requirements pertaining to machine controls, specific guards, nonkickback fingers or dogs, hood enclosures, adjustable stops, tension control devices, inspections, and maintenance, lubricating bearings, sharpening and tensioning saw blades, push sticks, and push blocks. Also reference 1910.212— <u>general requirements for all machines</u> and if portable tools, 1910.243—<u>guarding of portable powered</u> <u>tools</u>.

<u>1910.213</u>—Woodworking machinery requirements.

Do employees use abrasive wheel machinery? Yes / No / Unsure

The following standard provides general and specific requirements for abrasive wheel machinery pertaining to safety guards, flanges, and mounting (i.e., ring test, inspection, surface condition). Also reference 1910.212—general requirements for all machines and for portable tools, 1910.243—guarding of portable powered tools for additional requirements.

<u>Abrasive wheel</u> - Means a cutting tool consisting of abrasive grains held together by organic or inorganic bonds. Diamond and reinforced wheels are included.

<u>1910.215</u>—Abrasive wheel machinery.

Do employees use mills or calenders? Yes / No / Unsure

The following standard provides requirements pertaining to mill safety controls, calendar safety controls, protection by location, trip and emergency switches, and stopping limits. In addition, it references complying with subpart S—<u>electrical</u>, for installation of mechanical and electrical equipment and auxiliaries.

<u>Mill</u> - A machine consisting of two adjacent metal rolls, set horizontally, which revolve in opposite directions (i.e., toward each other as viewed from above) used for the mechanical working of rubber and plastics compounds.

<u>Calender</u> - A machine equipped with two or more metal rolls revolving in opposite directions and used for continuously sheeting or plying up rubber and plastics compounds and for fractioning, or coating materials with rubber and plastics compounds.

<u>1910.216</u>—Mills and calenders in the rubber and plastics industries.

Do employees use mechanical power presses? Yes / No / Unsure

The following standard provides general requirements pertaining to guarding and construction of press; safeguarding the point of operation; the design, construction, setting and feeding of dies; inspection, maintenance, and modification of presses; operation of power presses; reports of injuries to employees operating mechanical power presses; presence sensing device initiation (PSDI); and operating training (i.e., certification records).



This standard does not apply to press brakes, hydraulic and pneumatic power presses, bulldozers, hot bending and hot metal presses, forging presses and hammers, riveting machines and similar types of fastener applicators.

<u>Mechanical power press</u> - Shears, punches, forms, or assembles metal or other materials by means of tools or dies attached to slides or rams. Metalworking occurs by placing stock on a bottom die and striking it with a top die. The top die is attached to a crankshaft with connecting rods and rotation of the crankshaft is accomplished from a motor, flywheel, and gear power transmission.

<u>1910.217</u>—Mechanical power presses.

Do employees use forging machines? Yes / No / Unsure

The following standard provides general requirements pertaining to inspections, maintenance, training personnel, personal protective equipment, hammers (i.e., gravity, power-driven), presses (i.e., forging, trimming), certification records, upsetters (i.e., lockouts, manually operated controls, dies), and other forging equipment (i.e., billet shears, saws, conveyors, grinding shot blast).

<u>Forging machine</u> - Presses down on metal to create a specific shape. It is also referred to as a press or punch press.

1910.218—Forging machines.

Do you have mechanical power-transmission apparatuses? Yes / No / Unsure

The following standard provides general requirements for belts, pulleys, shafting, flywheels, ropes, chains, gears, sprockets, keys, set screws, fasteners, collars, couplings, clutches and other similar apparatuses. It includes requirements such as guards, location, pulley speeds, servicing, use of approved materials, guardrails and toeboards, inspections, and lubrication.

<u>1910.219</u>—Mechanical power-transmission apparatus.

SUBPART O APPENDICES:

Mechanical power press:

1910.217, <u>appendix A</u>, provides mandatory requirements for certification/validation of safety systems for presence sensing device initiation of mechanical power presses.

1910.217, <u>appendix B</u>, provides nonmandatory guidelines for certification/validation of safety systems for presence sensing device initiation of mechanical power presses.

1910.217, <u>appendix C</u>, provides mandatory requirements for OSHA recognition of third-party validation organizations for the PSDI standard.

1910.217, <u>appendix D</u>, provides nonmandatory supplementary information.



SUBPART O REFERENCES:

Abrasive wheels

Amputations

Electrical safety

Machine guarding

Mechanical power press

Personal protective equipment

Powered press brakes

Walking and working surfaces



Subpart P—Hand and Portable Powered Tools and Other Hand-Held Equipment

Does "<u>Subpart P</u>—Hand and Portable Powered Tools and Other Hand-Held Equipment" apply to you?

This subpart contains standards for maintaining, using and guarding portable powered tools and other hand-held equipment.

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

Yes / No / Unsure If yes, please continue.

Are employees using or maintaining hand and portable powered tools or other hand-held equipment? Yes / No / Unsure

The following standard provides the definitions applicable to this subpart.

1910.241—Definitions.

Do employees use portable powered tools? Yes / No / Unsure

The following standard includes basic requirements for maintaining the safe condition of tools and equipment used by employees and when using compressed air for cleaning purposes, that it be reduced to less than 30 pounds per square inch. (Reference <u>interpretation</u> dated January 14, 1994).

1910.242—Hand and portable powered tools and equipment, general.

Do employees use portable powered tools? Yes / No / Unsure

The following standard provides requirements pertaining to platen sanders, belt sanders, portable grinders, drills, jig saws, routers, planers, shears, saber saws, scroll saws, portable circular saws, pneumatic powered tools and hose, abrasive wheels, explosive actuated fastening tools, rotary mowers, and power lawnmowers.

It provides requirements for the different types of tools including switches and controls, removal from service, guarding, tool retainers, inspections, mounting wheels, eye protection, maintenance, tool handling, tool design, operating requirements, shut-off devices, affixed warning instructions, and deadman controls. Also reference 1910.213—woodworking machinery requirements and 1910.215—abrasive wheel machinery for additional requirements.

<u>1910.243</u>—Guarding of portable powered tools.



Do employees use jacks or abrasive blast cleaning nozzles? Yes / No / Unsure

The following standard includes requirements for using jacks such as lever and ratchet, screw and hydraulic. The requirements for jacks pertain to loading and marking, operation and maintenance, inspections, lubrication, repair, and tagging when out of service. It also requires blast cleaning nozzles to be equipped with an operating valve which must be held open manually and a support must be provided on which the nozzle may be mounted when it is not in use.

Also reference 1910.242—<u>hand and portable powered tools and equipment, general</u>, which includes basic requirements for maintaining the safe condition of tools.

Jack - *An appliance for lifting and lowering or moving horizontally a load by application of a pushing force.*

<u>1910.244</u>—Other portable tools and equipment.

SUBPART P REFERENCES:

<u>Abrasive wheel machinery</u> <u>Personal protective equipment</u> <u>Noise</u> <u>Woodworking machinery requirements</u>



Subpart Q—Welding, Cutting, and Brazing

Does "<u>Subpart Q</u>—Welding, Cutting, and Brazing" apply to you?

This subpart provides standards for welding, cutting and brazing operations.

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

Yes / No / Unsure If yes, please continue.

Do employees perform welding, cutting, and brazing? Yes / No / Unsure

The following standard provides definitions for this subpart.

<u>1910.251</u>—Definitions.

Do employees perform welding, cutting, and brazing? Yes / No / Unsure

The following standard provides the general requirements for welding, cutting, and brazing. It includes fire prevention and protection (i.e., fire watch, fire extinguishers, combustible materials, fire hazards, prohibited areas, authorizations, management and supervisor responsibilities, venting), confined spaces, personal protective equipment (Reference 1910.132—general requirements, PPE), ventilation, securing cylinders, signage, hazard communication program (Reference 1910.1200—hazard communication), working with hazardous chemicals (i.e., mercury, lead, cadmium, fluorides, zinc, beryllium), respirators, and industrial applications (i.e., piping systems, pipelines, x-ray inspections).

<u>1910.252</u>—General requirements.

Are employees using oxygen-fuel for gas welding or cutting? Yes / No / Unsure

The following standard provides requirements for oxygen-fuel gas welding and cutting including general requirements (i.e., flammable mixtures, maximum pressure, personnel), cylinders and containers (i.e., storage, marking, operating procedures), manifolding of cylinders, service piping systems, protective equipment, hoses and regulators, acetylene generators, and calcium carbide storage. Also reference 1910.252—general requirements.

<u>1910.253</u>—Oxygen-fuel gas welding and cutting.

Are employees arc welding and cutting? Yes / No / Unsure

The following standard provides general requirements (i.e., equipment selection, installation, instruction) for arc welding and cutting, along with the application requirements, installation of arc welding

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equipment, and requirements pertaining to operation and maintenance. Also reference 1910.252—<u>general requirements</u>.

<u>1910.254</u>—Arc welding and cutting.

Are employees conducting resistance welding? Yes / No / Unsure

The following standard provides general requirements (i.e., installation, thermal protection, personnel, guarding), along with the requirements pertaining to spot and seam welding machines (nonportable, portable welding machines, flash welding equipment, and maintenance. Also reference 1910.252—general requirements.

<u>1910.255</u>—Resistance welding.

SUBPART Q REFERENCES:

<u>Beryllium</u>
Compressed gases
Confined spaces
Hazard communication
<u>Hexavalent chromium</u>
<u>Lead</u>
Personal protective equipment
<u>Respiratory protection</u>
Welding and cutting



Subpart R—Special Industries

Does "<u>Subpart R</u>—Special Industries" apply to you?

This subpart provides standards for specific industries and are considered vertical standards as they apply to a particular industry such as pulp paper and paperboards mills, textiles, bakery equipment, laundry operations, sawmills, logging, telecommunications, electric power transmission and distribution and grain handling facilities.

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 manufacture and convert pulp, paper and/or paperboard? Yes / No / Unsure

The following standard applies to establishments where pulp, paper, and paperboard are manufactured and converted. It does not apply to logging and the transportation of logs to pulp, paper, and paperboard mills.

It provides requirements for safe practices, handling and storage of pulpwood and pulp chips, handling and storage of raw materials other than pulpwood or pulp chips, preparing pulpwood, rag and old paper preparation, chemical processes of making pulp, bleaching, stock preparation, machine room, finishing room, and materials handling.

<u>1910.261</u>—Pulp, paper, and paperboard mills.

Do you manufacture and process textiles? Yes / No / Unsure

The following standard applies to the design, installation, processes, operation, and maintenance of textile machinery, equipment, and other plant facilities in all plants engaged in the manufacture and processing of textiles, except those processes used exclusively in the manufacture of synthetic fibers.

It provides general safety requirements (i.e., lighting, inspections, maintenance, identification of physical hazards) and definitions, along with requirements for openers and pickers, cotton cards, Garnett machines, spinning mules, slashers, warpers, gill boxes, looms, continuous bleach range (cotton and rayon), kiers, mercerizing range (piece goods), tenter frames, dyeing jigs, drying cans, flat-work ironer, extractors, nip guards, sanforizing and palmer machine, rope washers, laundry washer tumbler or shaker, printing machine (roller type), calenders. rotary staple cutters, bailing machine, roll bench, acid carboys, first aid, dye kettles and vats, handling caustic soda and potash, cuttle or swing folders (overhead type), and color-mixing room.

<u>1910.262</u>—Textiles.



Do you have bakery operations? Yes / No / Unsure

The following standard applies to the design, installation, operation and maintenance of machinery and equipment used within a bakery. It provides general machine guarding requirements, and general requirements for flour handling, mixers, dividers, moulders, manually fed dough brakes, miscellaneous equipment (i.e., conveyors, racks, hand trucks), biscuit and cracker equipment, and ovens.

<u>1910.263</u>—Bakery equipment.

Do you have laundry operations using laundry equipment? Yes / No / Unsure

The following standard applies to moving parts of equipment used in laundries and to conditions peculiar to this industry, with special reference to the point of operation of laundry machines. This standard does not apply to dry-cleaning operations. It provides requirements for point-of-operation guards and operating rules.

<u>1910.264</u>—Laundry machinery and operations.

Do you have a sawmill? Yes / No / Unsure

The following standard applies to sawmill operations including, but not limited to, log and lumber handling, sawing, trimming, and planing; waste disposal; operation of dry kilns; finishing; shipping; storage; yard and yard equipment; and for power tools and affiliated equipment used in connection with such operations, but excluding the manufacture of plywood, cooperage, and veneer.

It provides requirements for building facilities and isolated equipment; log handling, sorting, and storage; log breakdown and related machinery and facilities; dry kilns and facilities.

1910.265—Sawmills.

Do you have logging operations? Yes / No / Unsure

The following standard applies to all types of logging, regardless of the end use of the wood. These types of logging include, but are not limited to, pulpwood and timber harvesting and the logging of sawlogs, veneer bolts, poles, pilings and other forest products. This standard does not cover the construction or use of cable yarding systems. Hazards and working conditions not specifically addressed by this standard are covered by other applicable general industry standards.

<u>Logging operations</u> - Operations associated with felling and moving trees and logs from the stump to the point of delivery, such as, but not limited to, marking danger trees and trees/logs to be cut to length, felling, limbing, bucking, debarking, chipping, yarding, loading, unloading, storing, and transporting machines, equipment and personnel to, from and between logging sites.

This standard provides general requirements (i.e., personal protective equipment, first aid kits, seatbelts,



fire extinguishers, electrical lines, flammable liquids, explosives), hand and portable powered tools (i.e., chainsaws), machine use, vehicles, tree harvesting, and employee training. It also references consensus 1910.6—incorporated by reference.

<u>1910.266</u>—Logging operations.

Are you in the telecommunications industry? Yes / No / Unsure

The following standard applies to all operations, installations and processes performed at telecommunications centers and at telecommunications field installations, which are located outdoors or in building spaces used for such field installations.

<u>Center work</u> - Includes the installation, operation, maintenance, rearrangement, and removal of communications equipment and other associated equipment in telecommunications switching centers.

<u>Field work</u> - Includes the installation, operation, maintenance, rearrangement, and removal of conductors and other equipment used for signal or communication service, and of their supporting or containing structures, overhead or underground, on public or private rights of way, including buildings or other structures.

The telecommunications standards do not apply to <u>construction work</u> (Means work for construction, alteration, and/or repair, including painting and decorating) nor to installations under the exclusive control of electric utilities used for the purpose of communications or metering, or for generation, control, transformation, transmission, and distribution of electric energy, which are located in buildings used exclusively by the electric utilities for such purposes, or located outdoors on property owned or leased by the electric utilities or on public highways, streets, roads, etc., or outdoors by established rights on private property.

Operations or conditions not specifically covered by this standard are subject to all the applicable general industry standards. Operations which involve construction work are subject to all the applicable standards contained in the construction standards.

This standard provides requirements for buildings containing telecommunications centers, training, employee protection in public work areas, tools and personal protective equipment, rubber insulating equipment, personal climbing equipment, ladders, vehicle-mounted material handling devices and other mechanical equipment, materials handling and storage, cable fault locating and testing, grounding for employee protection - pole lines, overhead lines, underground lines, microwave transmission, tree trimming, buried facilities, and definitions. It also references 1910.6—<u>incorporated by reference</u>.

<u>Telecommunications center</u> - An installation of communication equipment under the exclusive control of an organization providing telecommunications service, that is located outdoors or in a vault, chamber, or a building space used primarily for such installations.

Telecommunication centers are facilities established, equipped and arranged in accordance with engineered plans for the purpose of providing telecommunications service. They may be located on premises owned or leased by the organization providing telecommunication service, or on the premises



owned or leased by others. This definition includes switch rooms (whether electromechanical, electronic, or computer controlled), terminal rooms, power rooms, repeater rooms, transmitter and receiver rooms, switchboard operating rooms, cable vaults, and miscellaneous communications equipment rooms. Simulation rooms of telecommunication centers for training or developmental purposes are also included.

<u>1910.268</u>—Telecommunications.

Do you have electric power generation, transmission, and/or distribution installations? Yes / No / Unsure

The following standard applies to power generation, transmission, and distribution installations, including related equipment for the purpose of communication or metering that are accessible only to qualified employees.

The types of installations include the generation, transmission, and distribution installations of electric utilities, as well as equivalent installations of industrial establishments.

Subpart S—<u>electrical</u>, covers supplementary electric generating equipment that is used to supply a workplace for emergency, standby, or similar purposes only. It also provides the electrical standards that address the practical safeguarding of employees in the workplace.

It applies to other installations at an electric power generating station, as follows:

- Fuel and ash handling and processing installations, such as coal conveyors, water and steam installations, such as penstocks, pipelines, and tanks, providing a source of energy for electric generators, and chlorine and hydrogen systems;
- Test sites where employees perform electrical testing involving temporary measurements associated with electric power generation, transmission, and distribution in laboratories, in the field, in substations, and on lines, as opposed to metering, relaying, and routine line work;
- Work on, or directly associated with, these installations and 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.

This standard provides requirements for medical services and first aid, job briefings, lockout/tagout procedures, enclosed spaces, personal protective equipment, portable ladders and platforms, hand and portable power equipment, live-line tools, materials handling and storage, working on or near exposed energized parts, deenergizing lines and equipment for employee protection, grounding for the protection of employees, testing and test facilities, mechanical equipment, overhead lines and live-line barehand work, line-clearance tree trimming, communication facilities, substations, guarding of rooms and other spaces containing electric supply equipment, and special conditions.

<u>1910.269</u>—Electric power generation, transmission, and distribution.

Do you have grain handling facilities? Yes / No / Unsure



The following standard applies to grain elevators, feed mills, flour mills, rice mills, dust pelletizing plants, dry corn mills, soybean flaking operations, and the dry grinding operations of soycake and contains requirements for the control of grain dust fires and explosions, and certain other safety hazards associated with grain handling facilities and applies, in addition, to all other relevant provisions of the general industry standards.

The requirements for this standard pertain to emergency action plans (Reference 1910.38—<u>emergency</u> <u>action plans</u>), training, hot work permits, entry into grain storage structures, entry into flat storage structures, contractors, housekeeping, grate openings, filter collectors, preventive maintenance, grain stream processing equipment, emergency escape, continuous-flow bulk raw grain dryers, and inside bucket elevators.

<u>Grain elevator</u> - A facility engaged in the receipt, handling, storage, and shipment of bulk raw agricultural commodities such as corn, wheat, oats, barley, sunflower seeds, and soybeans.

1910.272—Grain handling facilities.

SUBPART R APPENDICES:

Logging:

1910.266, appendix A provides a list for first aid kits.

1910.266, appendix B provides an acceptable first aid and CPR training program.

Electric power generation, transmission and distribution:

1910.269, appendix A provides a guidance flow chart to the standard.

1910.269, appendix B provides guidance for working on exposed energized parts.

1910.269, <u>appendix C</u> provides information on protection from hazardous differences in electric potential.

1910.269, appendix D provides methods of inspecting and testing wood poles.

1910.269, appendix E provides protection from flames and electric arcs.

1910.269, <u>appendix F</u> provides work-positioning equipment inspection guidelines.

Grain handling:

1910.272, appendix A provides examples of achieving performance goals in the standard.

SUBPART R REFERENCES:

<u>Aerial lifts</u>

Amputations

<u>Arboriculture</u>

Bakeries and bakery equipment



Combustible dust *Confined spaces* Electrical safety Electric power generation, transmission and distribution Emergency action plans Flammable liquids Laundry machinery and operations Grain handing facilities Lockout/tagout Logging Machine guarding Materials handling and storage Medical services and first aid Pulp, paper and paperboard mills Organic solvents Personal protective equipment **Telecommunications Textiles Respiratory protection** Walking and working surfaces Welding and cutting



Subpart S—Electrical

Does "<u>Subpart S</u>—Electrical" apply to you?

This subpart provides standards covering electrical systems design, work practices, maintenance, and special systems (over 600 volts). It also addresses electrical safety requirements that are necessary for the safeguarding of employees.

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 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 the 1910.302 – 1910.308 provides the design safety standards for electric utilization systems and that 1910.331 – 1910.335 covers electrical safety-related work practices for qualified and unqualified persons.

1910.301—Introduction.

Do you have electrical installations and/or utilization equipment? Yes / No / Unsure

The following standard provides the application for the design safety standards for electric utilization systems. Included in this category are all electric equipment and installations used to provide electric power and light for employee workplaces. They apply to buildings, structures and other premises that have electrical installations and utilization equipment installed or used within them and includes:

- Yards;
- Carnivals;
- Parking and other lots;
- Mobile homes;
- Recreational vehicles;
- Industrial substations;
- Conductors that connect the installations to a supply of electricity; and
- Other outside conductors on the premises.

The design safety standards do not apply to:

- Installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles;
- Installations underground in mines;



- Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes;
- Installations of communication equipment under the exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations;
- Installations under the exclusive control of electric utilities for the purpose of communication or metering; or
- Generation, control, transformation, transmission, and distribution of electric energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

Also reference 1910.147—the control of hazardous energy (LOTO).

<u>1910.302</u>—Electric utilization systems.

Do you have buildings, structures and other premises that have electrical installations and utilization equipment? Yes / No / Unsure

The following standard pertains to examination, installation, and use of equipment; electrical connections; arcing parts; marking; disconnecting means and circuits; 600 volts, nominal or less (i.e., workspace, guarding); over 600 volts, nominal (i.e., enclosures, entrance, exits, illumination); and other general requirements.

1910.303—General requirements.

Do you have buildings, structures and other premises that have electrical installations and utilization equipment? Yes / No / Unsure

The following standard provides additional requirements pertaining to use and identification of grounded and grounding conductors; branch circuits (i.e., ground fault circuit interrupters, competent person); outside conductors, 600 volts, nominal or less; location of outdoor lamps; services (i.e., disconnecting means); overcurrent protection; and grounding (i.e., generators, connections).

<u>1910.304</u>—Wiring design and protection.

Do you have buildings, structures and other premises that have electrical installations and utilization equipment? Yes / No / Unsure

The following standard provides requirements pertaining to wiring methods (i.e., temporary wiring, cable trays, open wiring on insulators); cabinets, boxes, and fittings (i.e., conductors, covers, canopies, junction boxes); switches; switchboards and panelboards; enclosures for damp or wet locations; conductors for general wiring; flexible cords and cables; portable cables over 600 volts, nominal; fixture



wires; and equipment for general use (i.e., lighting fixtures, lampholders, lamps, receptacles, appliances, motors, batteries).

<u>1910.305</u>—Wiring methods, components, and equipment for general use.

Do you have specific purpose equipment or installations (e.g., electric signs, hoists, elevators, moving walks)? Yes / No / Unsure

The following standard includes specific requirements for the equipment and installations such as electric signs, outline lighting, hoists, cranes, elevators, dumbwaiters, escalators, moving walks, wheelchair lifts, stairway chair lifts, electric welders, information technology equipment, x-ray equipment, induction heating equipment, dielectric heating equipment, electrolytic cells (i.e., electrolytic cell lines, process power supply for the production of aluminum, cadmium, chlorine, copper, fluorine, hydrogen peroxide, magnesium, sodium, sodium chlorate and zinc), irrigation machines (i.e., electrically driven or controlled), swimming pools, fountains, carnivals, fairs, and/or circuses (or similar in nature) pertaining to disconnecting means, location, switches, operation, control panels, signs, identification, guarding and grounding, remote control, portable electric equipment, power supply circuits, receptacles, lighting fixtures, ceiling fans, cord and plug-connected equipment, distribution boxes, and termination boxes.

<u>1910.306</u>—Specific purpose equipment and installations.

Do you have hazardous (classified) locations (e.g., aircraft hangars, service stations, chemical processing plants)? Yes / No / Unsure

The following standard covers electric equipment and wiring that are classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers that may be present and the likelihood that a flammable or combustible concentration or quantity is present.

This standard provides the requirements pertaining to classifications (i.e., class 1, division 1), documentation, electrical installations, conduits, equipment in division 2 locations, protection techniques (i.e., explosion proof apparatus, dust ignition proof, purged and pressurized), and class 1, zone 0, 1, and 2 locations. These hazardous locations include aircraft hangars, gasoline dispensing and service stations, bulk storage plants for gasoline or other volatile flammable liquids, paint-finishing process plants, health care facilities, agricultural or other facilities where excessive combustible dusts may be present, marinas, boat yards, or petroleum and chemical processing plants.

<u>1910.307</u>—Hazardous (classified) locations.

Do you have systems operating at over 600 volts? Yes / No / Unsure

The following standard contains the general requirements for all circuits and equipment operated at over 600 volts pertaining to aboveground wiring methods, insulation shielding, moisture or mechanical protection for metal-sheathed cables, interrupting and isolating devices, mobile and portable equipment, and tunnel installations. It also provides specific requirements for emergency power systems (i.e., signs);

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class 1, class 2, and class 3 remote control, signaling, and power-limited circuits; fire alarm systems; communication systems; solar photovoltaic systems; and integrated electrical systems.

1910.308—Special systems (Over 600 volts).

Do you have employees that work on or near exposed energized parts? Yes / No / Unsure

The following standard provides the scope for standards 1910.332 – 1910.335. They apply to electrical safety-related work practices for qualified and unqualified persons, along with training requirements. It covers electrical safety-related work practices for both qualified and unqualified persons working on, near, or with the following installations:

- Premises wiring: Installations of electric conductors and equipment within or on buildings or other structures, and on other premises such as yards, carnival, parking, and other lots, and industrial substations;
- Wiring for connection to supply: Installations of conductors that connect to the supply of electricity; and
- Other wiring: Installations of other outside conductors on the premises; installations of optical fiber cable where such installations are made along with electric conductors.

<u>*Qualified persons*</u> - Those who have training in avoiding the electrical hazards of working on or near exposed energized parts.

<u>Unqualified persons</u> - Those with little or no such training working on or near exposed energized parts. This section does not apply to:

- *Generation, transmission, and distribution installations (Reference 1910.269—<u>electric power</u> generation, transmission, and distribution);*
- Installations of communication equipment (Reference 1910.268—<u>telecommunications</u>);
- Installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles; or
- Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations of railways used exclusively for signaling and communication purposes.

<u>1910.331</u>—Scope.

Are employees exposed to electrical hazards? Yes / No / Unsure

The following standard provides requirements for the employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements provided in the first section of this subpart. The training requirements for training content including safety-related work practices, skills to distinguish exposed live parts, determining the nominal voltage of exposed live parts, clearance distances, and type of training (i.e., classroom or on-the-job) determined by the risk to the employee.



<u>1910.332</u>—Training.

Are employees working on or near exposed energized and deenergized parts that expose the employee to electrical hazards? Yes / No / Unsure

The following standard applies to work on or near exposed energized and deenergized parts that expose the employee to electrical hazards. This standard provides requirements for safety-related work practices, working on or near exposed deenergized parts (i.e., application of locks and tags, deenergizing equipment, reenergizing equipment), and working on or near exposed energized parts (i.e., overhead lines, vehicular and mechanical equipment, illumination, confined spaces, portable ladders, housekeeping duties, interlocks).

<u>1910.333</u>—Selection and use of work practices.

Are employees working on cord and plug connected equipment, including flexible cord sets (extension cords)? Yes / No / Unsure

The following standard applies to the use of cord and plug connected equipment, including flexible cord sets (extension cords) and provides requirements pertaining to handling portable electric equipment (i.e., inspections, grounding type equipment, conductive work locations), electric power and lighting circuits (i.e., routine opening and closing circuits, overcurrent protection modification), test instruments and equipment (i.e., use, inspections, rating of equipment, use of flammable or ignitable materials).

1910.334—Use of equipment.

Are employees working on or near exposed energized and deenergized parts that expose the employee to electrical hazards? Yes / No / Unsure

The following standard provides additional requirements for employee protection including use of personal protective equipment (Reference subpart I—personal protective equipment), and protective equipment and tools (i.e., insulating tools or handling equipment, fuse handling equipment, alerting techniques, safety signs and tags, barricades, attendants).

<u>1910.335</u>—Safeguards for personnel protection.

Are employees working on or near exposed energized and deenergized parts that expose the employee to electrical hazards? Yes / No / Unsure

The following standard provides the definitions for this subpart.

1910.399—Definitions.



SUBPART S APPENDICES:

Subpart S, appendix A provides reference documents.

SUBPART S REFERENCES:

<u>Combustible dust</u> <u>Confined spaces</u> <u>Electrical safety</u> <u>Flammable liquids</u> <u>Lockout/tagout</u> <u>Personal protective equipment</u> <u>Signs, markings and tags</u> <u>Walking and working surfaces</u>



Subpart T—Commercial Diving Operations

Does "<u>Subpart T</u>—Commercial Diving Operations" apply to you?

This subpart provides the standards for commercial diving operations and related support operations. These standards do 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 <u>45 CFR Part 46</u> (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: 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 conduct commercial diving operations? Yes / No / Unsure

The following standard provides the scope and application for this subpart. It applies to diving and related support operations that are conducted in connection with all types of work and employments, including general industry, construction, ship repairing, shipbuilding, shipbreaking and longshoring. It 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 <u>45 CFR Part 46</u> or equivalent rules or regulations established by another federal agency, which regulate research, development, or related purposes involving human subjects.

<u>1910.401</u>—Scope and application.

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

The following standard provides the definitions for this subpart.

<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

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closed-circuit self-contained underwater breathing apparatus, during dives.

<u>1910.402</u>—Definitions.

Do your 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>1910.410</u>—Qualifications of dive team.

Do your 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>1910.420</u>—Safe practices manual.

Do your 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>1910.421</u>—Pre-dive procedures.

Do your 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>1910.422</u>—Procedures during dive.

Do your 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>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 selfcontained underwater breathing apparatus.

<u>1910.424</u>—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>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.

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).

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

<u>1910.427</u>—Liveboating.

Do your 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.

<u>1910.430</u>—Equipment.

Do your 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 1910.1020—access to employee exposure and medical records.

<u>1910.440</u>—Recordkeeping requirements.

SUBPART T APPENDICES:

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

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

Subpart T, <u>appendix C</u> provides alternative conditions under 1910.401(a)(3) for recreational diving instructors and diving guides (mandatory).

SUBPART T REFERENCES:

Commercial diving Compressed air and compressed air equipment Compressed gases Employee exposure and medical records Confined spaces 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, 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-Dimethylaminoazobenzene, and N-Nitrosodimethylamine), vinyl chloride, inorganic arsenic, beryllium, lead, chromium (VI), cadmium, benzene, coke oven emissions, cotton dust, 1,2-dibromo-3-chloropropane, methylenedianiline, respirable crystalline silica, ionizing radiation, ethylene oxide, 1,3-butadiene, ethylene chloride, formaldehyde, bloodborne pathogens, acrylonitrile, hazard communication, and chemical hazards in laboratories. It also provides requirements pertaining to employee medical and exposure records and DOT markings, placards, and labels.

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 have air contaminants? Yes / No / Unsure

The following standard applies to employee exposures to any substance established in <u>Table Z-1</u>—limits for air contaminants; <u>Table Z-2</u>; and <u>Table Z-3</u>—mineral dusts. This standard provides explanations regarding ceiling values, time-weighted averages, and computation formulae. It also includes the use of engineering controls, administrative controls, and other protective measures to limit exposure levels and that equipment and/or technical measures be approved by a competent industrial hygienist or other technically qualified person. It also references 1910.134—respiratory protection for whenever respirators are used.

<u>1910.1000</u>—Air contaminants.

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

The following standard applies to all occupational exposures to asbestos in all general industries covered by the Occupational Safety and Health Act. It does not apply to construction work, ship repairing, shipbuilding and shipbreaking employments and related employments.

This standard provides the permissible exposure limit (PEL) and requirements pertaining to exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133— <u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), signs and labels, employee information and training, housekeeping, medical surveillance, recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>), and mandatory and non-mandatory appendices.

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

<u>Asbestos-containing material (ACM)</u> - Any material containing more than 1% asbestos.

<u>1910.1001</u>—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>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 (i.e., 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 (Reference 1910.134— <u>respiratory protection</u>), contamination control, medical surveillance, hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard</u> <u>communication</u>), signs and labels, training and education, and records (Reference 1910.1020—<u>access to</u> <u>employee exposure and medical records</u>).

<u>1910.1003</u>—13 Carcinogens.

1910.1004—alpha-Naphthylamine (References 1910.1003—13 Carcinogens).

<u>1910.1006</u>—Methyl chloromethyl ether (*References <u>1910.1003</u>—13 Carcinogens*).

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1910.1007—3,3'-Dichlorobenzidine (References 1910.1003—13 Carcinogens).

1910.1008—bis-Chloromethyl ether (References 1910.1003—13 Carcinogens).

1910.1009—beta-Naphthylamine (References 1910.1003—13 Carcinogens).

<u>1910.1010</u>—Benzidine (References <u>1910.1003</u>—13 Carcinogens).

1910.1011—4-Aminodiphenyl (References 1910.1003—13 Carcinogens).

1910.1012—Ethyleneimine (References 1910.1003—13 Carcinogens).

1910.1013—beta-Propiolactone (References 1910.1003—13 Carcinogens).

1910.1014—2-Acetylaminofluorene (References 1910.1003—13 Carcinogens).

1910.1015—4-Dimethylaminoazobenzene (References 1910.1003—13 Carcinogens).

<u>1910.1016</u>—N-Nitrosodimethylamine (References <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 or polyvinyl chloride of Transportation may regulate them.

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

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

<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 PEL along with requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance plan), respirator program (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), signs and labels, hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), medical surveillance, information and training, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

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

<u>1910.1018</u>—Inorganic arsenic.

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 general industry 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., fee-for-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;

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- (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>1910.1020</u>—Access to employee exposure and medical records.

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 general industry. It does not apply to:

- This standard does not apply to articles (as defined below in 1910.1200—<u>hazard communication</u>) that contain beryllium and that the employer does not process.
- This standard does not apply to 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 PEL and requirements for exposure assessments, exposure monitoring, regulated areas, methods of compliance (i.e., written exposure control plan, engineering controls, work practice controls), respirator program (Reference 1910.134—<u>respiratory</u> <u>protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), signs and labels, hygiene areas and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), housekeeping, medical surveillance, information and training, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>1910.1024</u>—Beryllium

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

The following standard applies to all occupational exposure to lead, except in the construction

<u>industry</u> or to agricultural operations covered by the <u>agriculture standards</u>. This standard provides the PEL along with requirements for exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program) respirator program (Reference 1910.134— <u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), housekeeping, signs and labels, hygiene facilities and practices (Reference 1910.141— <u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), medical removal protection, medical surveillance, information and training, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

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

<u>1910.1025</u>—Lead.

Do your employees have occupational exposure to chromium (VI)? Yes / No / Unsure

The following standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except:

- Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or another Federal government agency (e.g., the treatment of wood with preservatives);
- Exposures to portland cement; or
- Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 μg/m³ as an 8-hour time-weighted average (TWA) under any expected conditions of use.

This standard provides requirements pertaining to permissible exposure limits, exposure determination, regulated areas, methods of compliance (i.e., engineering controls, work practice controls), respirator program (Reference 1910.134—<u>respiratory protection</u>), housekeeping, protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard</u> <u>communication</u>), medical surveillance, employee information and training, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>Chromium (VI) [hexavalent chromium or Cr (VI)]</u> - Means chromium with a valence of positive six, in any form and in any compound.

<u>1910.1026</u>—Chromium (VI).

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

The following standard applies to all occupational exposures to cadmium and cadmium compounds, in all forms, and in all industries covered by the Occupational Safety and Health Act, except the construction-related industries.

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

<u>1910.1027</u>—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 <u>hazard</u> <u>communication</u> 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 <u>hazard</u> <u>communication</u> 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 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 (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), medical surveillance, information and training, signs and labels, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<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>1910.1028</u>—Benzene.

Do your employees have occupational exposure to coke oven emissions? Yes / No / Unsure

The following standard applies to the control of employee exposure to coke oven emissions. It does not apply to working conditions with regard to which other Federal agencies exercise statutory authority to prescribe or enforce standards affecting occupational safety and health. This standard provides the permissible exposure limit along with requirements for regulated areas, exposure monitoring and measurement, methods of compliance, respirator program (Reference 1910.134—<u>respiratory</u> <u>protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), medical surveillance, training, signs and labels, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>Coke oven</u> - Means a retort in which coke is produced by the destructive distillation or carbonization of coal.

<u>Coke oven emissions</u> - Means the benzene-soluble fraction of total particulate matter present during the destructive distillation or carbonization of coal for the production of coke.

1910.1029—Coke oven emissions.

Do your employees have exposure to blood or other potentially infectious materials? Yes / No / Unsure

The following standard 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 (HBV), human immunodeficiency virus (HIV)/HBV laboratories, post-exposure evaluation and follow-up, information and training, recordkeeping (Reference 1910.1020—access to employee exposure and medical records), and sharps injury log.

<u>Occupational exposure</u> - 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, HBV and 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

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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>1910.1030</u>—Bloodborne pathogens.

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

The following standard applies to the control of employee exposure to cotton dust in all workplaces where employees engage in yarn manufacturing, engage in slashing and weaving operations, or work in waste houses for textile operations. It applies to the control of all employee's exposure to the cotton dust generated in the preparation of washed cotton from opening until the cotton is thoroughly wetted. It does not apply to:

- The handling or processing of woven or knitted materials; to maritime operations; to harvesting or ginning of cotton; or to part 1926, <u>construction</u>.
- *Knitting, classing or warehousing operations except that employers with these operations, if requested by NIOSH, shall grant NIOSH access to their employees and workplaces for exposure monitoring and medical examinations for purposes of a health study to be performed by NIOSH on a sampling basis.*

Exemptions from the standard:

- <u>Medical and dyed cotton</u>. Medical grade (USP) cotton, cotton that has been scoured, bleached and dyed, and mercerized yarn.
- <u>Washed cotton</u>. Cotton, after it has been washed by the processes described in the standard, is exempt from all or parts of the standard.
- <u>Cottonseed processing or waste processing operations</u>. Only paragraphs on medical surveillance, recordkeeping medical records, and appendices B (<u>B-I</u>, <u>B-II</u>, <u>B-III</u>, <u>C</u> and <u>D</u> apply in workplaces where employees exposed to cotton dust engage in cottonseed processing or waste processing operations.

This standard provides the PEL and action levels along with requirements pertaining to exposure monitoring and measurement, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (Reference 1910.134—<u>respiratory protection</u>), personal protective equipment, hazard communication program (Reference 1910.1200—<u>hazard communication</u>), medical surveillance, education and training, signs and labels, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>Cotton dust</u> - Means dust present in the air during the handling or processing of cotton, which may contain a mixture of many substances including ground up plant matter, fiber, bacteria, fungi, soil, pesticides, non-cotton plant matter and other contaminants which may have accumulated with the cotton during the growing, harvesting and subsequent processing or storage periods. Any dust present during the handling and processing of cotton through the weaving or knitting of fabrics, and dust present in other operations or manufacturing processes using raw or waste cotton fibers or cotton fiber byproducts from textile mills are considered cotton dust within this definition. Lubricating oil mist associated with weaving operations is not considered cotton dust.

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<u>1910.1043</u>—Cotton dust.

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 (Reference 1910.134 respiratory protection), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), housekeeping, hazard communication program (Reference 1910.1200—<u>hazard communication</u> standard), medical surveillance, information and training, signs and labels, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

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

<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.

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 (Reference 1910.134—

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<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face</u> <u>protection</u> and 1910.132—<u>general requirements</u>), hygiene facilities and practices (Reference 1910.141— <u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), information and training, emergency situations (i.e., written plan), training, signs and labels, housekeeping, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical</u> <u>records</u>).

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

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 (Reference 1910.134—<u>respiratory protection</u>), personal protective equipment (Reference 1910.133—<u>eye and face protection</u> and 1910.132—<u>general requirements</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard communication</u>), information and training, emergency situations (Reference 1910.38—<u>emergency action plans</u> and 1910.39—<u>fire prevention plans</u>), medical surveillance, training, signs and labels, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>1910.1047</u>—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 (Reference 1910.134—<u>respiratory protection</u>), personal protective equipment (Reference 1910.133—<u>eye and face protection</u> and 1910.132—<u>general requirements</u>), emergency situations, hygiene protection (Reference 1910.141—<u>sanitation</u>), housekeeping, hazard communication program (Reference 1910.1200—<u>hazard communication</u>), information and training, emergency procedures, medical surveillance, training, signs and labels, and recordkeeping (Reference 1910.1020—access to employee exposure and medical records).

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<u>1910.1048</u>—Formaldehyde.

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

The following standard applies to all occupational exposures to MDA. It 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 <u>hazard</u> <u>communication</u> and emergency situations.
- The <u>construction industry</u>.
- To materials in any form which contain less than 0.1 percent MDA by weight or volume.
- "Finished articles containing MDA."

Note: Where products containing MDA are exempted under this standard, the employer shall maintain records of the initial monitoring results or objective data supporting that exemption and the basis for the employer's reliance on the data, as provided in the recordkeeping provision of this standard.

This standard provides the PEL and requirements pertaining to emergency situations (Reference 1910.38—<u>emergency action plans</u> and 1910.39—<u>fire prevention plans</u>), exposure monitoring, regulated areas, methods of compliance (i.e., written compliance program, engineering controls, work practices), respirator program (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities and practices (Reference 1910.141—<u>sanitation</u>), hazard communication program (Reference 1910.1200—<u>hazard</u> <u>communication</u>), information and training, signs and labels, housekeeping, medical surveillance, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>1910.1050</u>—Methylenedianiline.

Do your employees have occupational exposure to 1,3 butadiene? Yes / No / Unsure

The following standard applies to all occupational exposures to 1,3-butadiene (BD). It does not apply to:

• To the processing, use, or handling of products containing BD or to other work operations and streams in which BD is present where objective data are reasonably relied upon that demonstrate the work operation or the product or the group of products or operations to which it belongs may not reasonably be foreseen to release BD in airborne concentrations at or above the action level or in excess of the STEL under the expected conditions of processing, use, or handling that will cause the greatest possible release or in any plausible accident. Recordkeeping provisions still

apply.

- To work operations, products or streams where the only exposure to BD is from liquid mixtures containing 0.1% or less of BD by volume or the vapors released from such liquids, unless objective data become available that show that airborne concentrations generated by such mixtures can exceed the action level or STEL under reasonably predictable conditions of processing, use or handling that will cause the greatest possible release.
- To the storage, transportation, distribution or sale of BD or liquid mixtures in intact containers or in transportation pipelines sealed in such a manner as to fully contain BD vapors or liquid. Labeling and emergency response requirements still apply.

Note: Where products or processes containing BD are exempted under this standard, the employer shall maintain records of the objective data supporting that exemption and the basis for the employer's reliance on the data.

This standard provides the permissible exposure limit and the requirements pertaining to exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance plan), exposure goal program, respirator program (Reference 1910.134—<u>respiratory</u> <u>protection</u>), emergency situations (Reference 1910.38—<u>emergency action plans</u> and 1910.39—<u>fire</u> <u>prevention plans</u>), medical screening and surveillance, hazard communication program (Reference 1910.1200—<u>hazard communication</u>), and recordkeeping (Reference 1910.1020—<u>access to employee</u> <u>exposure and medical records</u>).

<u>1910.1051</u>—1,3-Butadiene.

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 1910.120— <u>HAZWOPER</u>, paragraph (q)], respirator program (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities, hazard communication program (Reference 1910.1200—<u>hazard communication</u>), information and training, labels, medical surveillance, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<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, except:

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- Construction work; falls under 1926.1153—respirable crystalline silica;
- 1928—<u>Agricultural operations;</u>

- Exposures that result from the processing of sorptive clays.
- Where the employer has objective data demonstrating that employee exposure to respirable crystalline silica 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 permissible exposure limit and requirements pertaining to exposure assessment, regulated areas, methods of compliance (i.e., written exposure control plan), respirator program (Reference 1910.134—<u>respiratory protection</u>), protective work clothing and equipment (Reference 1910.133—<u>eye and face protection</u>), hygiene facilities, hazard communication program (Reference 1910.1200—<u>hazard communication</u>), information and training, signs and labels, medical surveillance, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<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>1910.1053</u>—Respirable crystalline silica.

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

The following standard applies to employee exposure to ionizing radiation. 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, highspeed protons, and other atomic particles; but such term does not include sound or radio waves, or visible light, or infrared or ultraviolet light.

<u>1910.1096</u>—Ionizing radiation.

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>1910.1200</u>—Hazard communication.

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 1910.1200—*hazard communication*.

<u>1910.1201</u>—Retention of DOT markings, placards, and labels.

Do you have employees that work with hazardous substances in laboratories? Yes / No / Unsure

The following standard applies to all employers engaged in the laboratory use of hazardous chemicals. Where this standard applies, it supersedes for laboratories, the requirements of all other general industry health standards in subpart Z—toxic and hazardous substances, except as follows:

- For any OSHA health standard, only the requirement to limit employee exposure to the specific permissible exposure limit shall apply for laboratories, unless that particular standard states otherwise.
- Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with exposure monitoring and medical surveillance requirements of this standard shall apply.
- *Prohibition of eye and skin contact where specified by any OSHA health standard shall be observed.*
- Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with exposure monitoring and medical surveillance requirements of this standard shall apply.

This standard does not apply to:

- Uses of hazardous chemicals which do not meet the definition of laboratory use, and in such cases, the employer shall comply with the relevant general industry standard in subpart Z, even if such use occurs in a laboratory.
- Laboratory uses of hazardous chemicals which provide no potential for employee exposure. Examples of such conditions might include:
 - Procedures using chemically-impregnated test media such as Dip-and-Read tests where a reagent strip is dipped into the specimen to be tested and the results are interpreted by comparing the color reaction to a color chart supplied by the manufacturer of the test strip; and
 - Commercially prepared kits such as those used in performing pregnancy tests in which

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all of the reagents needed to conduct the test are contained in the kit.

It provides the requirements pertaining to permissible exposure limits, exposure determinations, written chemical hygiene plan, chemical hygiene officer, information and training, medical consultation and examinations, hazard identification, respirator use (Reference 1910.134—<u>respiratory protection</u>), safety data sheets, and recordkeeping (Reference 1910.1020—<u>access to employee exposure and medical records</u>).

<u>Laboratory</u> - A facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

<u>Laboratory use of hazardous chemicals</u> - Handling or use of such chemicals in which all of the following conditions are met:

- Chemical manipulations are carried out on a "laboratory scale;"
- Multiple chemical procedures or chemicals are used;
- The procedures involved are not part of a production process, nor in any way simulate a production process; and
- "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

<u>Laboratory scale</u> - Work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

<u>1910.1450</u>—Occupational exposure to hazardous chemicals in laboratories.

SUBPART Z APPENDICES:

<u>Asbestos:</u>

1910.1001, <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.

1910.1001, <u>appendix B</u> provides detailed procedures for asbestos sampling and analysis.

1910.1001, <u>appendix D</u> provides the medical questionnaires.

1910.1001, <u>appendix E</u> provides the interpretation and classification of chest roentgenograms.

1910.1001, <u>appendix F</u> provides work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair, and assembly.

1910.1001, appendix G provides substance technical information for asbestos.

1910.1001, <u>appendix H</u> provides medical surveillance guidelines for asbestos.

1910.1001, appendix I provides the smoking cessation program information for asbestos.

1910.1001, appendix J pertains to polarized light microscopy of asbestos.

Vinyl chloride:

1910.1017, appendix A provides supplemental medical information for vinyl chloride.

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Inorganic arsenic:

1910.1018, <u>appendix A</u> provides the inorganic arsenic substance information sheet.

1910.1018, appendix B provides the substance technical guidelines.

1910.1018, appendix C provides medical surveillance guidelines.

Access to employee exposure and medical records:

1910.1020, appendix A 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).

<u>Beryllium:</u>

1910.1024, appendix A for this standard provides control strategies to minimize beryllium exposure. Lead:

1910.1025, <u>appendix A</u> provides the substance data sheet for occupational exposure.

1910.1025, appendix B provides the employee standard summary.

1910.1025, <u>appendix C</u> provides the medical surveillance guidelines.

Chromium (VI):

1910.1026, appendix A provides a settlement agreement.

Cadmium:

1910.1027, <u>appendix A</u> provides the substance safety data sheet.

1910.1027, appendix B provides the substances technical guidelines for cadmium.

1910.1027, <u>appendix D</u> pertaining to occupational health history interview with reference to cadmium exposure.

1910.1027, <u>appendix E</u> provides cadmium in workplace atmospheres.

1910.1027, appendix F pertains to nonmandatory protocol for biological monitoring.

Benzene:

1910.1028, <u>appendix A</u> provides the substance safety data sheet.

910.1028, <u>appendix B</u> provides the substance technical guidelines.

1910.1028, <u>appendix C</u> provides the medical surveillance guidelines.

1910.1028, <u>appendix D</u> provides the sampling and analytical methods for benzene monitoring and measurement procedures.

Coke oven emissions:

1910.1029, <u>appendix A</u> for this standard provides the coke oven emissions substance information sheet.

1910.1029, <u>appendix B</u> provides industrial hygiene and medical surveillance guidelines.

Bloodborne pathogens:

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1910.1030, appendix A provides the hepatitis B vaccine declination form.

Cotton dust:

1910.1043, appendix A provides air sampling and analytical procedures for determining concentrations of cotton dust.

1910.1043, appendix B-I provides the respiratory questionnaire.

1910.1043, appendix B-II provides the respiratory questionnaire for non-textile workers for the cotton industry.

1910.1043, appendix B-III provides the abbreviated respiratory questionnaire.

1910.1043, <u>appendix C</u> provides the spirometry prediction tables for normal males and females.

1910.1043, appendix D provides the pulmonary function standards for cotton dust standard.

1910.1043, <u>appendix E</u> provides the vertical elutriator equivalency protocol.

1,2-dibromo-3-chloropropane (DBCP):

1910.1045, appendix A provides the substance safety data sheet for DBCP.

1910.1045, <u>appendix B</u> provides the substance technical guidelines for DBCP.

1910.1045, appendix C provides the medical surveillance guidelines for DBCP.

Acrylonitrile:

1910.1045, appendix A provides the substance safety data sheet.

1910.1045, <u>appendix B</u> provides the substance technical guidelines.

1910.1045, <u>appendix C</u> provides the medical surveillance guidelines.

1910.1045, appendix D provides the sampling and analytical methods.

Ethylene oxide:

1910.1047, <u>appendix A</u> provides the substance safety data sheet.

1910.1047, appendix B provides the substance technical guidelines.

1910.1047, <u>appendix C</u> provides the medical surveillance guidelines.

1910.1047, <u>appendix D</u> provides the sampling and analytical methods for ethylene oxide.

Formaldehyde:

1910.1048, <u>appendix A</u> provides the substance technical guidelines.

1910.1048, appendix B 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.

Methylenedianiline (MDA):

1910.1050, appendix A provides substance data sheet.

1910.1050, appendix B provides the substance technical guideline

1910.1050, appendix C provides the medical surveillance guidelines.

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

1,3-Butadiene (BD):

1910.1051, appendix A provides the substance safety data sheet.

1910.1051, <u>appendix B</u> provides the substance technical guidelines.

1910.1051, appendix C provides the medical screening and surveillance.

1910.1051, appendix D pertains to the sampling and analytical method for BD.

1910.1051, appendix F provides the medical questionnaire.

Methylene chloride:

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.

<u>Silica:</u>

1910.1053, appendix A provides the methods of sample analysis.

1910.1053, appendix B pertains to the medical surveillance guidelines.

Hazard communication:

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, appendix F pertains to the guidance for hazard classifications re: carcinogenicity.

Occupational exposure to hazardous chemicals in laboratories:

1910.1450, <u>appendix A</u> pertains to the National Research Council recommendations concerning chemical hygiene in laboratories.

SUBPART Z REFERENCES:

<u>Acids and bases</u> <u>Asbestos</u> <u>Beryllium</u> <u>Bloodborne pathogens</u> <u>Chromium VI</u> <u>Cotton dust</u> <u>Emergency action plans</u>

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.

Employee exposure and medical records Eyewash stations and emergency showers *Fire prevention plans* Flammable liquids *Formaldehyde* Hazard communication Hierarchy of controls Lead Medical services and first aid Methylene chloride Organic solvents Personal protective equipment Radiation, ionizing and non-ionizing *Recording and reporting* **Respiratory protection** <u>Sanitation</u> Signs, markings and tags <u>Silica</u>

North Carolina State-Specific Standards

13 NCAC CHAPTER 7—OFFICE OF OCCUPATIONAL SAFETY AND 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 apply. 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)</u> - Experience modification rate] - Is a rate modifier used to establish a company's insurance premium for worker's compensation (WC). It 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.

<u>7A .0601</u>—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.

7A .0604—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.

7A .0605—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 .0100—Standards

Does "Subchapter 7F .0100—Standards" apply to you?

This subchapter contains state-specific standards for general industry employers. It includes the promulgation of the 29 CFR Part 1910 standards (7F.0100—General Industry), and an amendment to 1910.120—HAZWOPER training requirement.

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

Yes / No / Unsure If yes, please continue.

Do employees respond to emergencies involving hazardous materials involving hydrocarbon fuel leaks? Yes / No / Unsure

The following standard adds a new level of training to paragraph (q)(6) of 1910.120—<u>hazardous waste</u> operations and emergency response for individuals who respond to hydrocarbon fuel leaks; "first responder operations plus level".

This state-specific standard includes first responders at the operations plus level to receive at least training equal to first responder operations level and, in addition, receive training or have had sufficient experience to objectively demonstrate competency in specific areas and also requires certification by the employer.

<u>First responder operations plus level</u> - First responders at operations plus level are individuals who respond to hydrocarbon fuel tank leaks where the leaking tanks contain a hydrocarbon fuel which is used to propel the vehicle on which the tank is located. Only those vehicles designed for highway use or those used for industrial, agricultural or construction purposes are covered.

7F .0103—Hazardous materials.

7F.0600—Communication Tower Standards

Does <u>"7F.0600</u>—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.

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., <u>1910.268</u>—telecommunications, <u>1910.269</u>—electric power generation, transmission, and distribution and 29 CFR 1926 <u>subpart V</u>—electric power transmission and distribution) 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.

7F .0603—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,

<u>7F .0607</u>—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.

7F .0609-Training.

SUBCHAPTER 7F REFERENCES:

<u>Communication towers</u> <u>Electrical safety</u> <u>Emergency action plans</u> <u>Fall protection</u> <u>Flammable liquids</u> <u>Hazard communication</u> <u>HAZWOPER</u> <u>Radiation, ionizing and non-ionizing radiation</u> <u>Materials handling and storage</u> <u>Medical services and first aid</u> <u>Personal protective equipment</u> <u>Respiratory protection</u>

Subchapter 7G—Handling of Antineoplastic Agents

Does "Subchapter 7G—Handling of Antineoplastic Agents" apply to you?

This subchapter contains the state-specific standard for general industry employers that handle antineoplastic agents (chemotherapeutic agents used to treat cancer).

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

Yes / No / Unsure If yes, please continue.

Do your employees handle antineoplastic agents? Yes / No / Unsure

The following standard states that the recommendations contained in the Alert identified below with respect to the handling of antineoplastic agents are incorporated by reference, including subsequent amendments and editions:

• The recommendations issued by the National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC), as contained in the <u>Alert:</u> <u>Preventing Occupational Exposure to Antineoplastic and Other Hazardous Drugs in Health Care</u> <u>Settings</u>, as published in 2004.

<u>Antineoplastic drugs</u> - A chemotherapeutic agent that controls or kills cancer cells.

<u>7G .0101</u>—Handling of antineoplastic agents.

SUBCHAPTER 7G REFERENCES:

Antineoplastic agents

NORTH CAROLINA GENERAL STATUTE (NCGS)

NCGS 95-129—Rights and Duties of Employers

Does "<u>NCGS 95-129</u>—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 "<u>NCGS 95-173-218</u>—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.

<u>95-173</u>—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.

<u>95-192</u>—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.

<u>95-193</u>—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.

<u>95-196</u>—Employee rights.

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.

<u>95-197</u>—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.

<u>95-198</u>—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.

<u>95-208</u>—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:

<u>Hazard communication</u> <u>Hazardous chemicals right to know</u> North Carolina field operations manual, <u>chapter IV</u> - 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)Safety and health presentations (downloadable presentations to be made site-specific)OSH training calendar (i.e., register for webinars, in-person classroom training, virtual events) Streamingvideo services (on-demand training)Request outreach services (i.e., request training, booths, guest speaker)AskOSH (interpretations)NCDOL library (i.e., consensus standards, research assistance)Inspections (general industry standards that require inspections)Programs, plans and procedures (general industry standards that require programs, plans, procedures)Training (general industry 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) <u>Interpretations</u> (federal OSHA interpretations for general industry) Training (Susan Harwood Grant PowerPoints)