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PURPOSE

The Contractor Safety Handbook describes minimum expectations for safe work activities of contractors performing work at Williams' Access Operating Area (Access OA) locations.

SCOPE AND APPLICABILITY

The requirements set forth in this handbook apply to any Access OA employee or individual who is under contract or sub contract who performs work or provides services or equipment on Access OA locations, regardless of whether those contractors are used for an extended or short duration. The Contractor Safety Handbook establishes how the contractor shall perform to assure a safe work environment for all personnel. When local requirements are stricter than the requirements contained in this handbook, those shall apply to contractors working under the authority of local Access OA management.

INTRODUCTION

Contractors are solely responsible for the safety and health of their employees and subcontractors, consultants and agents, as well as their subcontractors' employees and agents and their respective invitees and guests when working on Access OA locations. Contractors are expected to perform work in compliance with applicable regulations, recommended practices and contractor's requirements. Contractors shall also ensure that their employees, subcontractor employees and other invitees meet the minimum requirements of this Contractor Safety Handbook.

Contractors are responsible for providing the above-listed persons with all necessary protective and safety equipment and training for the proper use of such equipment. Contractors are required to maintain equipment according to manufacturer's recommendations and applicable regulations.

Access OA representatives will inform contractors of any known or potential hazards (fire, explosion, toxic release, etc.) associated with the location and work being performed in and around the area.



Contractors should be informed of any emergency preparedness information applicable to Access OA locations. Contractors shall assure that each of their employees, subcontractors and other invitees are instructed on the hazards and emergency preparedness information.

Contractors shall conduct their operations in such a manner that they constitute no hazard to Access OA employees, equipment and/or property, contractor employees, subcontractors and other invitees, the public or the environment. Any non-compliance with regulations, Access OA requirements and contractor's requirements will result in the contractor and associated personnel being removed from Access OA locations and Access OA's approved contractor list. Access OA reserves the right to conduct random and reasonable suspicion inspections and searches on and around Access OA work sites. Additionally, Access OA reserves the right to deny access or the use of any equipment or substance brought on site.

At Access OA, we not only believe in our safety program, but we look at safety as your most important responsibility while working for us. We operate under the principle that safety is not just a program, but a culture. In promoting our safety culture, or way of life, we believe that all employees and contractors who work on our locations will return home in the same capacity in which they arrived. In order to fulfill our safety culture, all Access OA employees and contractors must strive to prevent incidents that adversely affect personnel, facilities, equipment and the environment every day, month and year.

A successful accident-prevention program requires a conscientious workforce that knows, understands and follows established safety rules and guidelines. As a contractor working for Access OA, you are responsible to know and follow Access OA safety requirements. This handbook was created to provide you with the minimum safety requirements Access OA expects from contract personnel. However, this handbook does not address every conceivable practice, procedure or situation you may encounter while working for Access OA. It is your responsibility to conduct your

job in accordance with established safety practices and, where applicable, take additional precautionary measures to ensure the safety and health of all personnel at any Access OA location.

Through our combined efforts we can reach our ultimate objective: an incident-free environment.

DEFINITIONS

A. Access OA Location

Any site, property, equipment, facility, location, activity or project that is owned, operated, leased, controlled, supervised or accessed by Access OA; Access OA sites include but are not limited to compressor stations, easements, rights-of-way, pipelines, gathering systems, gas plants, storage facilities, meter stations, terminals, office buildings, warehouses and shops

B. Access OA Management

An Access OA director, manager, supervisor or higher-ranking official who has the power, authority and responsibility to make decisions in the coordination of activities in accordance with Access OA policy

C. Access OA Representative

An Access OA employee or contract employee/ agent acting on the behalf of Access OA

D. Authorized/Qualified Contractor

A designated contractor who understands the nature of the work to be performed and the precautions necessary to perform the work in a safe manner



E. Competent Person

An individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous and/or dangerous to personnel, and who has authorization to take prompt corrective measures to eliminate them

F. Contractor/Subcontractor

Any Access OA representative or individual that is under contract or sub-contract that performs work or provides services or equipment on Access OA locations, activities, projects, etc.

G. Incident

An event that involves personal injury or illness, fire, explosion, property damage, vehicle accident, equipment failure, environmental release, atmospheric release, regulatory inspection, regulatory citation, theft or adverse media or political attention

H. Near Miss

An unplanned event that did not result in an injury, equipment damage or environmental impact but had the potential to do so with a slight change in position, location or time

GENERAL REQUIREMENTS

All contractors shall report to their appropriate supervisor upon arrival at an Access OA location. Contractor management shall ensure that contractor personnel are given safety orientations to become familiar with job-site hazards and emergency procedures.

Prior to commencing work, contractors will be required to attend a pre-job meeting to discuss safety requirements and job-site safety/hazard information

Contractor management shall ensure that all contractor personnel are qualified and trained to perform contracted services.

Contractor management shall provide contractor personnel with proper and well-maintained equipment and tools necessary for the particular job being performed, unless otherwise specified by contract language. Contractors shall conduct equipment inspections at a frequency to ensure the equipment is functioning properly and maintained to prevent environmental impact or insult to the surrounding work location.

Contractors shall follow all applicable federal, state and local regulations.

Contractors shall ensure that all operations are conducted in a safe manner.

Contractors shall promptly report all known and/or suspected hazards and unsafe conditions to an Access OA representative and to affected personnel.

Contractors shall supply their personnel with all necessary personal protective equipment (PPE) and other safety equipment, unless otherwise specified by contract language.

Contractors shall enforce Access OA safe-work practices as specified in this handbook.

Contractors shall maintain discipline and good order among their personnel.

Contractors violating any Access OA safe-work practice or applicable governmental regulations are subject to immediate removal from Access OA locations, at a minimum.

Contractors sub contracting work are required to have a subcontractor management program which includes, but is not limited to evaluation and selection of subcontractors based on safety and environmental performance; assurance of training and qualification of subcontractors; and verification that subcontractors' EHS programs meet applicable regulations and the hiring contractor's own requirements. at a minimum.



HOUSEKEEPING

In order to prevent accidents caused by a cluttered and/or slippery work surface and to keep escape routes clear during an emergency, all work areas shall be kept clean and orderly to the extent that the nature of the work allows.

Specific Requirements

- Put scraps, trash and other waste in the proper containers. Keep oily rags, waste or other combustible material in properly labeled metal containers provided for that purpose. Covers shall be placed on containers used for flammable or hazardous materials or those that contain garbage. Do not allow combustible material, lumber, waste and garbage to accumulate.
- Smoke only in designated areas and dispose of stubs in butt can or appropriate container.
- Clean up your work area and your tools as you go.
- Properly store air hoses, welding leads or hoses, and electrical cords when not in use. Do not allow these items to be placed where they create a tripping hazard.
- Clear work areas of tools, welding rod ends and metal shavings.
- · Clean spills as soon as practical.
- Keep all material, tools and equipment tied, stacked or chocked to prevent falling or rolling.
 Stack material so workers and/or equipment can easily reach it.
- Keep small items in boxes or bins.
- Immediately remove protruding nails, screws, etc. to prevent puncture injuries.
- Keep walkways and stairways clear of all obstructions.
- Do not place or store equipment and/or materials

within three (3) feet of any emergency equipment and/or electrical disconnects.

- Do not block access/egress ladders.
- Provide adequate storage facilities for frequently used equipment (ladders, scaffolds, etc.).
- Control weeds and grass. Herbicides shall be applied by certified personnel and have the approval of Access OA management.
- · Comply with site-specific housekeeping rules.

REPORTING

Contractors shall immediately notify an Access OA representative of all incidents and near misses as a result of contractor or subcontractor activity occurring on Access OA locations. When required, Access OA management and Contractor management will coordinate the reporting procedure to all applicable federal, state and local governmental bodies and agencies having jurisdiction.

Relevant information shall be gathered in order to create an informative, factual First Report of Incident. Contractors may be required to provide information and participate in Access OA's investigation as needed.

Incidents involving a contractor U.S. Occupational Safety and Health Administration (OSHA)-recordable injury or illness, an agency-reportable spill or release, damage to Access OA property or significant near miss which had the likelihood and probability to result in an OSHA-recordable injury or illness, agency reportable spill or release, or damage to Access OA property shall be investigated by the contractor to determine the root cause(s) and to identify necessary corrective actions.

Upon completion of an incident investigation, contractors are required to submit, in writing, an investigation summary and corrective action plan to Access OA. On occasion, contractors may be required to meet with Access OA management to discuss the incident and plan for corrective action.



SMOKING

Smoking is **PROHIBITED** within the physical boundaries of any Access OA location where the presence of gas and/or flammable/combustible materials may constitute a hazard of fire or explosion.

Smoking is permitted in designated smoking areas only. If you are not absolutely sure you are in a designated area, do not light up. Confirm designated smoking areas with an Access OA representative. Properly dispose of stubs and trash.

ALCOHOL, DRUGS AND WEAPONS

Access OA will not knowingly use any con-tractors/ subcontractors who have tested positive for drugs or alcohol or who have refused to take a drug and alcohol test as required by their employer or Access OA. When on Access OA property, all contractors, subcontractors and any other non-Access OA personnel will be subject to on-site substance-abuse testing by Access OA according to the Master Service Agreement.

Alcohol

The use of intoxicating beverages including energy drinks containing alcohol while at an Access OA location or reporting to work under the influence of alcohol and in a condition not fit for work by virtue of alcohol consumption is cause for immediate termination of services. Access OA also prohibits any contractor/subcontractor from bringing alcohol onto Access OA locations or using, consuming, transporting, selling or attempting to sell or transport alcohol while at any Access OA location.

Illegal Drugs

The possession, use, being under the influence of, distribution, manufacture, sale or transportation of illegal drugs while at an Access OA location (including Access OA or contractor vehicles) is **PROHIBITED**. Violation of this policy is cause for immediate termination of services.

For purposes of this handbook, an "illegal drug" is any drug which is not legally obtainable, any drug which may be legally obtainable but has not been legally obtained or any drug which is being used in a manner or for a purpose other than as prescribed.

Prescription and Over-the-counter Drugs

Access OA prohibits any contractor from abusing prescription medications or over-the-counter (OTC) drugs while at an Access OA location. Violation of this policy is cause for immediate termination of services.

For purposes of this handbook, "prescription or OTC drug abuse" means taking medications that were prescribed for someone else; using prescription drugs or OTC drugs for a purpose other than for which they were prescribed or manufactured; or using such drugs other than in accordance with doctor's instructions or recommended dosages.

Contractor management must be aware of the mental capacity of their employees when assigning work at an Access OA location.
Contractors are not allowed to work at an Access OA location where they may be exposed to operating machinery while taking prescribed medicines that may cause them to become impaired from safely performing their duties.

Weapons

Firearms, ammunition, knives, swords, bows and arrows, explosives, etc., are not permitted at any Access OA location. The prohibition of weapons applies regardless of whether an individual is licensed to carry a concealed weapon. This prohibition also applies to hunting equipment including but not limited to shotguns, rifles, bows and arrows, etc. Violation of this policy is cause for immediate termination of services.

Exception for contract security personnel -

A contractor working at the request of the Corporate Security Department may carry weapons when properly licensed, with Access OA authorization, and in accordance with local, state and federal law.



DRIVING/VEHICLE OPERATION

Contractor vehicles, including but not limited to trucks, all-terrain/utility-terrain vehicles, powered industrial trucks (forklifts), earth-moving equipment, mobile cranes, side booms, winch trucks and other powered mobile equipment must be operated and maintained in a safe and reasonable manner while on an Access OA location. Operators must be trained and, where applicable, qualified and certified for the equipment they are operating. Contractors operating vehicles shall do so in accordance with manufacturers' recommendations including those recommendations pertaining to personal protective equipment (e.g., U.S. Department of Transportation-approved helmet) and other safety devices (seat belts).

When required by safety regulations or manufacturer's specifications, vehicles will be equipped with back-up alarms and rollover protection.

Vehicles are not permitted to be left running when the operator leaves the operating position.

Obey posted speed limits and operate at a safe speed where speed limits are not posted or as required by conditions.

Seat belts are required to be worn at all times when operating a vehicle equipped with a seat belt. Removal of seat belts from equipment to circumvent this requirement is strictly prohibited. At no time shall a contractor be permitted to ride in the back of a truck or any type of utility vehicle while on an Access OA location. In short, vehicles equipped with seat belts shall not be occupied by anyone not wearing a seat belt.

All contractor vehicle accidents that occur on an Access OA location must be reported to an Access OA representative immediately or as soon as reasonably possible.

Prior to entering a plant or facility area with vehicles, contractors must obtain authorization from an Access OA representative (plant/facility operations personnel).

A back-in only parking policy shall be used at all Access OA locations, unless a vehicle can be otherwise parked so that driving forward is the first move when leaving. This policy is to be used at all Access OA locations including, but not limited to, field offices, compressor stations, construction locations and rights-of-way (ROWs). This back-in only policy applies to every vehicle regardless of ownership.

EMERGENCY PROCEDURES

OSHA 1910.38

Contractors shall prepare their own emergency procedures and shall train their employees in these procedures. Contractors shall be familiar with Access OA location emergency and evacuation signal/alarm warning systems and be prepared to coordinate emergency procedures and notification. Contractors performing work at manned facilities including those regulated by Process Safety Management (PSM) shall be made aware of that facilities' Emergency Action Plan (EAP).

FIRST AID/MEDICAL SERVICES

OSHA 1910.151

Contractors shall provide appropriate first-aid or emergency medical capabilities to meet the requirements of the job. Contractors shall ensure that injured contract personnel receive proper first aid treatment or medical attention immediately. Contractors who subscribe to an injury case-management service shall ensure those services are utilized to effectively manage on-the-job injuries and illnesses. Contractors shall also ensure that adequate communication for summoning help or appropriate transportation is available. In the absence of nearby medical facilities, at least one contract personnel shall be adequately trained to provide first aid and shall be present at the work site.



FIRE PROTECTION AND PREVENTION

OSHA 1910.155-165

When burn bans are in effect ensure all state and local approvals and permits are obtained prior to performing work requiring an open flame.

Contractors shall supply fire suppression and protection equipment appropriate for the work being performed and the environmental conditions in which the work is performed. Contractors shall be aware of the forecast and observe any "red flag" or burn ban conditions. Contact the local fire department if necessary. Delay hot work until high-humidity, low-wind days if possible. If hot work must be done, have an adequate supply of water on site (do not rely on a fire extinguisher only). Ensure the areas around the work being performed are maintained in a way that prevents a possible fire hazard, (i.e., high grass or weeds are removed, etc.). Do not park vehicles in high grass or weedy areas as catalytic converters may cause ignition.

Fire extinguishers must be properly inspected, tagged and sealed, and contractors must be trained in their use.

Contractors shall provide appropriately-sized fire extinguishers. Such extinguishers shall be based upon vehicle size and potential fire type.

For fire watch purposes, a 20-pound fire extinguisher or larger shall be utilized. Contractors are responsible to supply all of their fire watch extinguishers.

Contractor vehicles and auxiliary engines shall be in safe operating condition and shall have an exhaust system in good operating condition (manifold, muffler and tail pipe) in order to prevent potential fire hazards.

In prairie and forested areas, contractors must have the appropriate fire-fighting equipment on location, as specified by local fire control measures. Appropriate equipment may include, but not be limited to, a water truck with spray bar/nozzles and fire extinguishers.

Welding and cutting are prohibited outside of designated safe welding areas unless controlled by a hot work permit.

A fire watch is required for all hot work.

Good housekeeping is an important part of fire prevention and must be strictly enforced. Oily rags, debris, trash and other unnecessary material shall be picked up and properly disposed of regularly. Do not place hot slag, metal or similar waste into a trash receptacle until it has thoroughly cooled.

Spills or leaks of flammable/combustible liquids must be cleaned up promptly and the source of spill/leak repaired.

Bulk transporters or tank trucks loading or unloading flammable liquids must utilize grounding/bonding equipment to prevent ignition of flammable vapors due to static electrical discharge.

The potential for static electrical discharge should be considered for other flammable liquid transfers, such as filling drums, buckets or other small containers. Use of bonding equipment and other precautions to prevent ignition of flammable vapors should be utilized whenever appropriate.

Gasoline is a fuel and shall not be used as a cleaning agent.

Type 1 or Type 2 approved metal or high-density polyethylene safety cans are required for flammable liquid storage at Access OA locations.

Portable tanks and drums for flammable liquid storage shall be:

Constructed of metal unless the liquid is corrosive to metal



- Adequately vented with flame arresting capability whenever possible
- Equipped with self-closing spouts to prevent spillage
- Located as far as feasibly possible from electrical and mechanical equipment or any other additional ignition sources

SPILL AND RELEASE MANAGEMENT

Spills of hazardous materials can endanger exposed personnel, contaminate the environment and could endanger the general public and wildlife. When a spill occurs at an Access OA location, the following action steps are general guidelines for prompt response:

- STOP THE SOURCE of the spill, if possible, without exposing personnel to hazardous situations
- CONTAIN THE SPILL with absorbent material. The primary concern is to prevent spilled or released materials from leaving Access OA property and entering any waterway.
- NOTIFY the immediate supervisor regarding the substance that was spilled, the location of the spill and the volume of the spill. All spills must be reported to an Access OA representative immediately, or as soon as possible, no later than the end of the work shift.
- ASSESS the impact of the spill to people, animals and land and, if needed, block public access to the area with barrier tape, traffic cones or vehicles.

Cleanup will be under the direction of Access OA. A cleanup procedure for all spills will be determined on a case-by-case basis. During the cleanup procedure do not mix contaminated materials and soil with clean, uncontaminated materials. Proper personal protective equipment shall be worn when dealing with spills and releases.

Secondary containment (berms, dikes, etc.) around certain above-ground tanks is not only a good housekeeping practice, it is also a requirement.

Before making any temporary opening in a berm or dike, obtain permission from the appropriate Access OA representative. A berm or dike must not be left open overnight without authorization from Access OA management. If available, ensure cross-over steps and landings are used rather than walking over berms or dikes.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

OSHA 1910.132-138

This PPE list is not intended to be all-inclusive; the particular job assignment and work location may require the use of additional PPE. It is the responsibility of the Contractor to identify special requirements and furnish all necessary PPE and other safety equipment to their personnel.

Contractors are responsible for providing all PPE to their personnel where it is needed and enforcing its use. Contractors are responsible for instructing their personnel in the selection, use and care of PPE. Contractors shall also ensure that all PPE is properly inspected prior to use. Contractors shall be thoroughly familiar with the equipment and its limitations before it is issued and used.

When working at an Access OA location, minimum-required PPE includes flame resistant clothing (FRC), hard hat, safety glasses and safety toed boots

Access OA reserves the right to evaluate and require contractors to utilize additional PPE in order to provide a better level of protection based on recognized hazards associated with the specific job or task.

FRC

FRC shall meet 29 CFR 1910.132(c) and current consensus standards NFPA 70e, NFPA 2112, and 2113.



FRC is required to be worn by all persons entering an Access OA field location. Access OA field locations include but are not limited to compressor facilities/stations, plants, storage terminals, pipeline rights-of-way (ROWs), pipeline/facility construction locations and any other Access OA field location either active, inactive or under construction for the purpose of receiving, treating, storing, and/or transporting hydrocarbons. This applies to employees, contractors, subcontractors, visitors, or any other person legally entering an Access OA field location

Exceptions

Access OA employees and contractors/agents who are working on the behalf of Access OA in a ROW or land-acquisition capacity where the work requires the person to travel to landowners' houses or other venues for the purpose of conducting business are not required to wear FRC. Personnel are required to wear FRC if the work takes them to an Access OA field location as defined above

Personnel engaged in work at Access OA field locations prior to the commencement of construction (groundbreaking) for the purposes of environmental/archeological assessments, pre-construction planning, etc., are not required to wear FRC. Personnel are required to wear FRC if the work takes them to an Access OA field location as listed above

Delivery or truck drivers dropping off or picking up materials away from the immediate work zone (i.e., equipment staging area beyond where work is being performed) are not required to wear FRC.

Similar work not listed in this exception section is also excluded from the FRC requirement so long as personnel are not entering an Access OA field location.

Wearing FRC

FRC garments are to be worn with sleeves rolled down, fully zipped and buttoned up.

FRC shall be the outermost layer of clothing, except when other personal protective clothing is required (e.g., chemical resistant suits, welder's leather, etc.).

External garments such as rain gear and reflective vests shall be made of flame-resistant material.

Contractors shall not wear synthetic blends (i.e., nylon, polyesters, rayon or polyethylene) under FRC; all undergarments must be made of natural fibers such as cotton or wool.

Hard Hats

Hard hats shall meet current American National Standards Institute (ANSI) standards and shall not be altered in any way. Hard hats shall be used and maintained in accordance with the manufacturer's recommendations. Hard hats permitted on Access OA locations shall only be cap or full-brim style.

Eye and Face Protection

Safety glasses shall meet ANSI Z-87.1 standards. Side shields shall be worn on prescription safety glasses.

Goggles may be required during chemical handling. Refer to the chemical's Material Safety Data Sheet (MSDS) for specific requirements.

Face shields with safety glasses or goggles shall be used when grinding or using tools/equipment that cause or have the potential to cause flying debris.

Welding helmets shall be used when welding.

Welding goggles shall be used when acetylene cutting or brazing.

Safety-toed Boots

Safety-toed boots shall meet current ANSI Z-41 or ASTM F2412 and F2413 standards.



Hearing Protection

Hearing protection shall be worn in designated areas. In addition, specific job tasks/activities may create a high-noise area and shall require the use of hearing protection.

Gloves

Appropriate hand protection shall be worn for the task being performed. **NOTE: Synthetic gloves are prohibited.** Glove types may include, but are not limited to:

- Cotton or leather gloves for general work activities
- Leather gloves when grinding (high cuff with portable grinders)
- Appropriate chemical gloves when handling chemicals (see MSDS)

HEAT STRESS PREVENTION

Contractors shall ensure that appropriate precautions are taken to reduce the risk to their employees working outdoors during extreme temperatures from developing heat-related illnesses through the development and implementation of a Heat-Alert Program.

Heat-Alert Program

The Heat-Alert Program shall include:

- Training employees on the hazards of hot environmental temperature and protective measures
- · Making appropriate first aid available
- · Having drinking water available
- Making provisions for prompt medical attention, in case a heat-related illness occurs

Other measures to reduce the risk of heat-related illnesses include:

- Engineering controls (portable air-cooling blow fans, use of power assists and tools that reduce the physical demands placed on a worker); or
- Administrative controls/work practices
 (acclimatization program; work/rest schedule;
 scheduling of work; reduce the physical demands
 of work e.g., excessive lifting or digging; schedule
 hot work during cooler parts of the day; use
 of relief workers; use of worker pacing; fluid
 replacement; provide recovery areas including
 facilities to allow hand and forearm immersion
 into cool water, and worker monitoring programs
 by checking heart rate, recovery heart rate, oral
 temperature or extent of body water loss)

EQUIPMENT AND TOOLS

OSHA 1910.94, 215, 241-244,

All equipment and tools necessary to complete the work shall be in good condition and operated as per manufacturer's operating guidelines and applicable regulations. Contractors shall inspect equipment prior to each use and periodically inspect equipment to ensure it is maintained in good working condition. Contractors are prohibited from modifying or using any modified equipment or tools while working at an Access OA location. Contractors shall be adequately trained on the proper use of the tools they operate.

Tool Safety

Contractors shall be aware of the hazards associated with the improper use of hand tools and have the ability to recognize and stop an unsafe condition.

Guards on all power tools (e.g., portable grinders) shall not be removed or modified.

Unplug or disconnect all tools prior to adjusting, repairing, servicing or replacing blades/bits.

Prior to using hydraulic, pneumatic or fuel-



powered tools, inspect hoses and seals for leaks, loose parts and damage.

Ring tests shall be conducted prior to mounting grinding discs. Ensure wheel RPM is rated for the grinder/cut-off saw to be used. Never use wheels that have any damage or flaws.

Discard, repair or replace all damaged parts or components prior to use.

Intrinsically safe equipment is required to work in locations that contain or have the potential to contain flammable gasses or vapors (Class I Division 1, Class II Division 2).

Knives

Knives and other cutting tools are essential in performing certain job tasks. However, if used incorrectly, they can be dangerous. Ensure the following safe-cutting practices are followed when using knives or other cutting tools:

- Secure the material to be cut and cut away from your body.
- Ensure the area around the item being cut is free from objects that could interfere with the cutting path.
- Be aware of others working in the immediate area and ensure they are at a safe distance while cutting is taking place.
- Ensure that the knife being used is properly sharpened — a dull knife may slip instead of cutting the material.
- Use the appropriate tool for the job do not use knives in place of screwdrivers, pliers or clippers.
- · Never try to catch a falling knife.
- Use appropriate personal protective equipment (PPE) such as leather or cut-resistant gloves.

- Do not put a knife with an exposed blade in a toolbox or other areas that may create a hazard.
- Ensure that knives are carried properly cover the blade or close the knife.
- Do not use the knife if it appears to be damaged.
- Use alternative cutting tools such as snips, box knives with retractable blades or selfretracting safety knives to minimize exposures whenever possible.

Abrasive Blasting

Prior to abrasive blasting the contractor shall ensure that the appropriate blasting media or grit is suitable for the job being performed. Typically, abrasive blasting with wet grit has the advantages of reduced dust generation, lower potential for spark generation and lower surface temperature increase on the affected equipment. Wet grit blasting or high-pressure water cleaning may be used if appropriate for the job.

Before each abrasive blasting job, check hoseto-hose connections, hose-to-nozzle connections and the hose-to-mixing chamber to ensure they are working properly.

The blast cleaning nozzles on abrasive/ sandblasting equipment shall be equipped with an operating valve which must be held open manually. Nozzles shall be attached to the hose by fittings that prevent the nozzle from becoming disengaged.

When engaged in abrasive blasting operations or working in or around designated blasting areas, contract personnel shall use appropriate PPE. The following PPE examples may be used when engaged in abrasive blasting operations:

 Continuous-flow airline respirator, with a protective hood to cover the head (protective helmet), neck, shoulders and chest



- Hood-view ports made of impact-resistant safety glass or plastic covered by a metal screen
- · Gauntlet-type leather gloves
- Strong-fiber material clothing, resistant to flying abrasive material
- · Protective hearing devices

This PPE list is not all-inclusive and additional protective equipment may be required during certain blasting operations.

MATERIAL HANDLING

OSHA 1910.176-184, 1926.550, 1926.1400-1427

Some elements of this section may be applicable to certain types of equipment according to OSHA regulation Subpart CC. It is the responsibility of the contractor to ensure these elements are followed when required by OSHA.

Cranes

Only properly trained and qualified crane operators and riggers shall perform crane work at an Access OA location. When in use, cranes shall be operated safely and barricaded off to prevent unauthorized personnel from entering hazardous areas. Whenever performing critical lifts, a pre-lift meeting shall be conducted by the crane operator/lead rigger.

Prior to lifting personnel using a crane and basket, coordinate the work with Access OA EHS field personnel to ensure all applicable requirements and safety devices are in use. Lifting personnel using a crane and basket can only be performed if a safer alternative is not available.

Assembly/Disassembly

Prior to assembling or disassembling equipment or attachments, the contractor shall comply with all applicable manufacturer prohibitions and procedures applicable to assembly and disassembly. Assembly/disassembly shall be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons ("A/D" director).

Where assembly/disassembly is being performed by one person, that person shall meet the criteria for both a competent person and a qualified person and is considered the A/D director.

The equipment must not be assembled or used unless ground conditions are firm, drained and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met. The controlling contractor entity shall ensure that ground preparations as stated above are appropriate.

Inspections

Contractors shall perform an inspection upon completion of assembly of the equipment. The inspection shall be conducted by a qualified person to ensure that it is configured in accordance with manufacturer equipment criteria.

Contractors shall perform a visual inspection prior to each shift during which the equipment will be used by a competent person, which must be completed before or during that shift. The inspection shall consist of observation for apparent deficiencies as specified in 1926.1412.

While the equipment is in service, contractors shall document inspections on a monthly basis in accordance with 1926.1412(d). Contractors shall document and maintain inspection information regarding items checked and the results of the inspection of equipment, the date, the name and signature of the person who conducted the inspection. This document shall be retained by the contractor for three months.



At least every 12 months, the contractor shall inspect the equipment using a qualified person in accordance with 1926.1412(d). The inspection shall be comprehensive, where disassembly is required, as necessary to complete the inspection. The equipment shall be inspected in accordance to 1926.1412(f). If deficiencies are identified the qualified person shall ensure each deficiency is addressed according to 1926.1412(d).

The annual/comprehensive inspection shall be documented, maintained and retained for a minimum of 12 months by the contractor that conducts the inspections. The information documented shall be in accordance with 1926.1412(f)(7).

Operator Qualification and Certification

The contractor shall ensure that prior to operating any equipment covered under subpart CC, the operator is qualified or certified to operate the equipment in accordance with subpart CC 1926.1427.

Hoisting/Rigging

All lifting devices (i.e. cables, slings, hooks, lift beams, spreader bars, etc.) shall be inspected prior to use and used in accordance with applicable regulatory and manufacturers' guidance. Defective equipment shall be removed from service and discarded immediately.

Transporting/Loading/Unloading Material or Equipment

Refer to the Electrical Safety portion of this handbook for additional guidance regarding power-line safety.

Special precautions shall be taken when performing material-handling tasks such as pipe loading/unloading, transporting material from one location to another and loading and unloading heavy machinery and equipment. Ensure all tie downs are properly fastened and loads are secure before transporting material. Inspect all tie downs and anchor points prior to loading and securing

the load. All warning labels shall be placed on vehicles/trailers to meet DOT requirements. Ensure material is properly supported and secured prior to off-loading to prevent material from falling. Personnel shall stand clear while pipe is being loaded and off-loaded. Personnel shall not stand directly in front or under suspended loads.

Equipment, transported material or personnel shall not come within the approach distance boundary as determined by one of three options in accordance with OSHA 1926.1408 of the power-line safety paragraph in the Electrical Safety section of this handbook. When equipment, transported material or personnel appears to come within close proximity of overhead power lines, suspend work immediately and contact an Access OA representative and the local utility company for guidance and/or assistance.

NOTE: Tag lines shall be used to allow personnel to maintain a safe distance from the load. Contractors shall ensure that non-conductive tag lines are used when the work being performed is around overhead power lines.

HAZARD COMMUNICATION

OSHA 1910.1200

Before using any chemicals, contract personnel shall become familiar with the hazards of the chemical as well as the precautions and personal protection required for each chemical. In the event of exposure, promptly take the proper action(s) as directed on the Material Safety Data Sheets (MSDS).

All contractors who work with hazardous chemicals shall be properly trained. Contractor management shall ensure all contract personnel are aware of the contractor hazard communication program, the location and interpretation of the MSDS, and the location and use of the required PPE.



All chemical containers shall be properly labeled with the chemical identity and appropriate hazard warnings and stored so they do not create a hazard.

Access OA will, upon request, provide the contractor an appropriate MSDS for hazardous chemicals maintained on site by Access OA.

The contractor shall maintain an appropriate MSDS on site for any hazardous chemical which the contractor brings to an Access OA location.

The contractor shall provide MSDS to Access OA for every hazardous chemical brought to an Access OA location.

JOB SAFETY ANALYSIS (JSA)

A JSA is a safety tool intended to assist in the protection of workers at Access OA locations by identifying hazards or potential hazards and determining control measures to be taken for each hazard or potential hazard. A JSA shall be completed as required by Access OA or as directed by the Contractor's program. The lead of the job will assume the responsibility of administering the JSA.

NOTE: Other checklists/permits (hot work, confined space, etc.) may be required based on the job in addition to the JSA.

The JSA shall remain at the job site for the duration of the work. Upon completion of the job, a copy of the JSA shall be submitted to the appropriate Access OA representative.

Contractors may use their own JSA form as long as it meets minimum requirements of Access OA JSA.

LOCKOUT/TAGOUT (LOTO)

OSHA 1910.147

LOTO shall be utilized when working on or around equipment/processes where the unexpected energization, start-up, or release of energy could occur. Energy sources include, but are not limited to electrical, mechanical, hydraulic, pneumatic, thermal, residual stored energy, gravity, pressurized liquids and gases, and/or chemicals.

When performing work on equipment/processes where hazardous energy could be stored, the authorized contractor shall follow appropriate LOTO procedures in accordance with OSHA 1910.147.

Contractors shall ensure that their personnel affected by LOTO or authorized to perform LOTO are appropriately trained and qualified.

Contractors shall ensure that their personnel involved in a group LOTO maintain exclusive control over the hazardous energy sources, i.e., each person involved shall have their own lock and tag affixed to the equipment, group lock box or other devices.

When contractor equipment is interconnected with Access OA equipment/processes, lockout/ tagout of the contractor's equipment shall be conducted with oversight by an Access OA representative. Contractors are not authorized to lockout Access OA equipment.

HOT WORK

OSHA 1910.252

This information does not apply to work performed in a shop designated for such activities, such as a welding shop.

Hot work is any work within 35 feet (at a minimum) of flammable and/or combustible materials/areas that will generate sufficient heat or spark which may cause fire and/or explosion.



Hot work includes, but is not limited to, the following:

- Welding
- · Torch cutting/burning
- Soldering/brazing
- Flaming (e.g., thawing, freeing seized bearing, etc.)
- Grinding
- Sandblasting, chipping or other sparkproducing activities
- Using spark-producing equipment
- · Hot tapping of lines or vessels
- · Open flame of any sort
- Use of a heated power washer
- Heat fusion of poly pipelines

Contractors performing hot work at an Access OA location shall do so under an Access OA Hot Work Permit or a contractor hot work permit that meets or exceeds Access OA Hot Work Permit requirements.

Contractors shall ensure that properly trained and qualified personnel are used to conduct hot work at Access OA locations.

Prior to beginning hot work, determine if the hot work activity can be avoided by relocation of the work to more than 35 feet away from the flammable/combustible material.

All operations involving hot work shall include:

- Initial and periodic or continuous air monitoring as necessary
- Appropriate fire-suppression equipment
- · Designated fire watch

Upon completion of hot work, the contractor or designated fire watch shall remain at the site for at least 30 minutes to ensure a fire will not ignite.

The contractor shall continuously evaluate the hot work being performed and take measures to control any hazards that may occur.

The Hot Work Permit shall remain at the job site for the duration of the work. Upon completion of the job, a copy of the Hot Work Permit shall be submitted to the appropriate Access OA representative.

GROUND DISTURBANCE

All ground disturbances at Access OA locations shall meet the following requirements:

- All excavation project areas should be marked with white paint and flags when necessary to properly communicate the project location to all operators responding to the one-call locate request.
- State one-call notification requirements shall be followed prior to any excavation activities on behalf of Access OA on Access OA rights-of-way, pipeline facilities or other locations. Forty-eight hours notice is required in most states, but some states have extended notification periods. There are no exemptions on depth. One-call notification is not required for:
 - Using fill-dirt as an alternative to grading low spots
 - · Filling areas where erosion has occurred
 - Using stockpiled material, such as for placing a berm around a spill containment area, as long as this activity does not penetrate the ground more than six inches
 - Mechanical scraping less than six inches deep, such as back-dragging, filling in ruts and snow removal
- One-call tickets shall be refreshed if the work is to exceed the duration of the current ticket. The lifespan of a one-call ticket is determined by each state. Contractors shall be aware of the area requirements prior to allowing your ticket to expire. Note: most states have a 14-day ticket lifespan, but it can vary in some states.



- Work shall not begin until a positive response is received from all companies listed on the current one-call ticket
- Prior to beginning work the site shall be inspected for evidence of unmarked or mismarked facilities.
 Contractors shall perform a JSA and tail-gate meeting with all affected personnel on site.
- A copy of the current one-call ticket shall be kept on site at all times for the duration of the excavation project.
- Tolerance zone: no mechanical excavation shall be allowed within 24 inches of the outermost edge of a buried facility. Hand digging and other non-mechanical excavation techniques (e.g., vacuum trucks) shall be used inside the tolerance zone. If a line cannot be located accurately to determine the depth or location of said asset, then mechanical excavation shall not be allowed until accurate location of the line is performed either by electronic or physical means.
- All excavation and line exposures on Access OA property or rights-of-way shall be monitored by an Access OA employee or representative.
- Contractors shall be aware of the type of buried utilities and products being transported in the area of excavation. Also be aware of the dangers and leak-detection methods for each type of utility and product. Contact a local EHS representative for additional information regarding facility and product safety and awareness.
- In case of emergency: Turn off and abandon equipment, eliminate possible ignition sources, move away quickly (upwind if possible) and call 911 immediately. If a line strike results in a product release of any type, contact Access OA as soon as can be done safely.
- All damages and near misses should be communicated directly to Access OA, regardless of severity.

 All intentional or unintentional encroachments should be communicated to Access OA immediately.

Damage-prevention laws and one-call requirements differ vastly per state. For additional information about damage-prevention requirements and laws in your state, please contact your local EHS Representative or visit www.Call811.com.

TRENCHING/EXCAVATION

OSHA 1926.650-652

A competent person is an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous and/or dangerous to personnel, and who has authorization to take prompt corrective measures to eliminate them. Contractors shall identify and designate competent persons to oversee all trenching/excavation activities being conducted on Access OA property.

When trenching/excavation is performed, the contractor is responsible for conducting work in accordance with OSHA Regulations 1926.650, 1926.651 and 1926.652.

Trenching/excavation on Access OA locations require the following:

- Calling the state one-call system for underground utility locates at least 48 hours (or sooner as required by some states) prior to beginning work
- A Contractor's competent person, trained in accordance with OSHA and/or DOT (when applicable), on site during work
- Soil Classification utilizing an accepted OSHA method
- Use of protective systems such as sloping, benching, and/or shoring/shielding



- · Barricading the hole when left unattended
- Daily inspections and recordkeeping documented on Access OA's trenching and excavation checklist or the contractor's checklist
- A means of egress (ladders, steps and/or ramps) in trenches/excavations four feet in depth or greater with no more than 25 feet of travel distance from any point in the trench/ excavation
- Safeguards to protect personnel at all times while the excavation is open

The trenching/excavation checklist shall remain at the job site for the duration of the work. Upon completion of the job, a copy of the trenching/excavation checklist shall be submitted to the appropriate Access OA representative.

NOTE: All trenches and excavations designed for personnel entry at Access OA locations, which are four feet in depth or greater, or if underground utilities or other installations are encountered, require the completion of Access OA's trenching and excavation checklist or Contractor's equivalent checklist by a competent person at the location

CONFINED SPACE

OSHA 1910.146

A confined space is defined by OSHA as meeting the following:

- Is large enough and so configured that a person 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 occupancy

- In addition to the criteria listed above, a permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:
 - Contains or has a potential to contain a hazardous atmosphere
 - Contains a material that has the potential for engulfing an entrant
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward to a smaller cross section; or
 - Contains any other recognized serious safety and health hazard

Access OA considers all confined spaces to be permit-required confined spaces until they are reclassified as non-permit required by an Access OA representative. Contractors are permitted to enter confined spaces only after they are reclassified. Prior to entry, Access OA will first attempt to reclassify all confined spaces. However, if reclassification as non-permit-required confined space cannot be accomplished, contractors approved by Access OA management, and who have a permit-required confined-space entry program and permit as well as properly trained personnel and proper equipment (according to OSHA 1910.146), may enter permit-required confined spaces at Access OA locations.

Access OA's confined-space reclassification checklist or Contractor's confined-space permit shall remain at the job site for the duration of the work. Upon completion of the job, a copy of Access OA's confined-space reclassification checklist or Contractor's confined-space permit shall be submitted to the appropriate Access OA representative.



WELDING

OSHA 1910.251-255

All welding activity shall be performed in accordance with applicable engineering standards, industry recommended practices and OSHA regulations. Prior to beginning any welding activity the contractor shall complete all required checklists/permits (e.g., hot work, confined space, etc.) including a JSA. The following describes minimum expectations for safe-welding activities of contractors performing work at Access OA locations.

Electrical Shock

Electrical shock is an inherent safety hazard of welding that may occur if proper safety precautions are not followed.

A contract welder shall:

- Be insulated from work piece and grounded by using dry insulation (e.g., rubber mat or dry wood)
- Ensure dry welding gloves are used that are free of rips and/or holes and replace welding gloves when appropriate
- Not touch electrically "hot" parts or electrode with bare skin or wet clothing
- Use reliable automatic controls for reducing no-load voltage in order to reduce shock hazard while performing A.C. welding under wet conditions or warm surroundings where perspiration is a factor. 1910.254(b)(3)(iv)
- Ensure electrode holder and cable insulation are in safe working condition — free from damage
- · Not splice within 10 feet of the electrode holder

Equipment

Prior to beginning any welding activities contract welders shall:

- Inspect all welding leads, connections, hoses and hose connections, fluid levels and check for leaks
- · Inspect for any mechanical damage
- Inspect for evidence of worn, frayed and severed wiring
- Immediately remove damaged wiring from service
- Operate and maintain equipment per manufacturers' guidelines
- Immediately remove damaged equipment from service and repair or replace as appropriate

Personal Protective Equipment (PPE)

Appropriate PPE required for welding operations will vary with the scope, nature and location of the work to be performed. This PPE list is not intended to be all-inclusive. It is the responsibility of the contractor to identify special requirements and furnish all necessary PPE and other safety equipment to their personnel.

- Use eye and face protection that is approved with appropriate shading based on the type of welding being performed. 1910.252(b)(2) Eye Protection
- Contract welders and helpers shall not remove eye protection before the work stops.
- Wear appropriate welding gloves for the work being performed.
- Wear protective sleeves, cape and bib, coat, and apron in combinations as required.



Ventilation

Adequate ventilation shall be provided for all welding, cutting, brazing and related operations.

- Ensure that exhaust does not displace oxygen creating a ventilation hazard in areas where welding is being conducted.
- Utilize respiratory protection equipment as required by the work according to the contractor respiratory-protection program.
- Use extreme caution when welding in confined spaces under contractors' confined-space program.
- Review Material Safety Data Sheets (MSDS) and become familiar with the relevant hazards associated with the job being performed.

Ultraviolet (UV) Protection

Protective screens shall be strategically placed whenever welding is performed in a building such as a welding shop.

- Screens shall be noncombustible/flameresistant curtains or shields to protect all personnel from radiant energy.
- Non-welding personnel shall be notified of the UV hazards on the work being performed.
 Appropriate precautions shall be followed to protect all non-welding personnel from radiant energy.

Gas Cylinders

- All fuel gas cylinders shall be transported in an upright position and properly secured.
- Cylinder caps shall be securely attached when transported, stored and not in use. There are two different and accepted practices that can be utilized:
 - Protective cap without regulator assembly
 - Protective cap with regulator assembly attached

- Regardless of the cap method used to protect valves of compressed gas cylinders, the valve shall always be closed when cylinders are not being used
- Cylinders shall be labeled to identify contents.
 Oxygen cylinders shall be stored away from flammable cylinders
- Inspect gauges and hoses for integrity and ensure the connections are tight
- Ensure approved backflow and flash back protective equipment is utilized
- · Never touch an electrode to a cylinder
- Never lift a machine with a cylinder attached
- Cylinders shall be stored in an upright position and secured by safety chains or straps

Hot Work

The hot work section outlined in this handbook does not apply to welding activities conducted in a shop designated for such activities. However, it does apply when welding within 35 feet of flammable combustible materials.

Radiation Exposure

Contractors performing X-rays in an area that may be accessible to unauthorized personnel shall ensure that special safety precautions are made to protect those individuals from radiation exposure as follows:

 Each radiation area shall be conspicuously posted with a sign or signs bearing the conventional radiation caution symbol and the words:

CAUTION RADIATION AREA



- Each radiation area shall be marked with protective visual barriers that will clearly identify the radiation area to prevent unintentional entrance by unauthorized personnel.
- Contractors performing X-rays shall be mindful
 of the surrounding area and ensure there are
 no unauthorized personnel in the radiation area
 before performing an X-ray.

RESPIRATORY PROTECTION

OSHA 1910.134

Respiratory protection equipment shall be utilized whenever work activities involve potential exposure to atmospheres that are oxygendeficient and/or contain air contaminants that may be harmful to health, and as required by Access OA

The Contractor's required respiratory protection equipment shall be selected, inspected, maintained and used in accordance with OSHA 1910 134

Grade D breathing air shall be used in supplied-air or self-contained respiratory protection equipment. A laboratory analysis or manufacturer's certificate verifying Grade D breathing air shall be available for inspection upon request.

Compressors used to provide breathing air shall be equipped with a high-temperature alarm, carbon monoxide (CO) monitor/alarm and air cleaning/filtering devices as needed to produce Grade D quality breathing air. A laboratory analysis verifying Grade D output air for breathing shall be available for inspection upon request.

HYDROGEN SULFIDE (H₂S)

Some Access OA locations have a known presence of gas and/or liquids containing hazardous concentrations of H₂S. H₂S is a highly toxic, colorless gas that is heavier than air and can cause death at low concentrations

THE CHART BELOW PROVIDES ONLY GENERAL TOXICITY INFORMATION FOR H,S

| L O W | SAFE WORK CONDITIONS | 0 - 10 ppm |
|------------------|---|-----------------------|
| M O D | RESPIRATORY TRACT IRRITATION COUGHING EYE IRRITATION LOSS OF SENSE OF SMELL | 10 - 200 ppm |
| H I G H | SHOCK CONVULSIONS COMA DEATH IN SEVERE CASES | 200 ppm or greater |

Special requirements shall be met by contractors who work at Access OA locations with a known presence of H₂S. At a minimum, the following requirements shall be met by the contractor:

- All personnel shall complete an approved H₂S training program prior to work.
- Contractors shall provide adequate H₂S monitoring equipment for all personnel and require its use at Access OA locations with H₂S concentrations of 10 ppm or greater in the well stream at all times. Contractors shall ensure that their employees are trained in the proper use of H₂S monitoring equipment. Contractors are responsible to keep monitoring equipment in proper working order and shall ensure monitors are maintained and calibrated according to manufacturer's recommendations. Contractors shall not be permitted on Access OA locations if the calibration is not current and the monitoring equipment is not functioning properly.



Warning signs will be posted at Access OA locations that contain H₂S at 10 ppm or greater. Some facilities, such as treating plants, have permanent perimeter monitoring systems. Contractors working at these facilities shall become familiar with site-specific H₂S evacuation alarms and evacuation procedures.

If ${\rm H_2S}$ is detected in concentrations at 10 ppm or greater, evacuate the area immediately and notify the appropriate Access OA representative.

If reentry is determined to be necessary, it must be done in accordance with OSHA respiratory protection requirements 1910.134.

ASBESTOS

OSHA 1910.1001

During certain work activities, the potential exists to come in contact with Asbestos Containing Material (ACM). Under no circumstances shall a contractor or contractor's employees intentionally disturb, handle, remove or dispose of any ACM or Presumed Asbestos Containing Material (PACM). All work activities involving ACM must be performed by qualified asbestos abatement contractors.

During the excavation of a pipeline, an evaluation shall occur to determine the likelihood that ACM may be present. If the evaluation verifies that there is no potential to ACM, proceed under normal safe work practices. If the evaluation verifies the potential for ACM, all work on the pipeline in the affected area shall cease immediately. Secure the area to ensure there is no ACM exposure to anyone and immediately contact an Access OA representative.

While working at an Access OA facility, the facility will have labels and/or signs affixed or posted so that workers will be notified of what materials contain ACM.

The contractor shall ensure that appropriate asbestos awareness training has been conducted for their employees who have been determined to have the potential to come into contact with ACM.

NATURALLY OCCURRING RADIOACTIVE MATERIAL (NORM)

Access OA defines NORM contamination as any equipment or material, other than produced fluids, that has an equivalent dose reading that equals or exceeds 50 micro Roentgens per hour (μ R/hr) (including natural background) when screened with a properly functioning and calibrated radiation-detection instrument. Where a state or other regulatory agency has an applicable standard that is lower, the more stringent value shall apply.

At Access OA locations where radiation equals or exceeds 50 μ R/hr, an Access OA representative shall notify contract personnel regarding the presence of NORM. Contractors are obligated to follow their own internal NORM safety policies that meet or exceed applicable regulatory provisions or guidance while performing work on Access OA locations with known presence of NORM. All NORM-related incidents or issues must be reported to the appropriate Access OA representative immediately.

ELECTRICAL SAFETY

OSHA 1910.331-335, 1926,1408

Prior to performing work on electrical equipment/ systems, lockout/tagout (LOTO) shall be utilized to de-energize/isolate the equipment or system. If LOTO is infeasible or introduces an increased hazard, electrical safety-related work practices shall be followed

All contractors performing electrical work must be properly trained in accordance with OSHA standards before performing work at an Access OA location. Only those who have the skills, knowledge and required training (including task-specific training) are considered "qualified" with regard to certain equipment but still may be "unqualified" as to other equipment. Appropriate personal protective equipment and tools shall be used where applicable.



Electrical equipment shall be purchased, installed and operated in accordance with manufacturer's guidelines and always maintained in good working order. Intrinsically safe electrical equipment is required for work in locations that contain or have the potential to contain flammable gases or vapors.

New construction, modification or replacement shall be done according to all applicable codes.

Only contractors with specialized training and qualifications shall perform servicing and maintenance activities on systems over 600 volts.

Power Line Safety

Contractors shall conduct a hazard assessment prior to equipment operations while working around overhead power lines. Contractors shall identify the work zone according to 1926.1408. Contractors shall determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so the contractor shall meet one of the following three options:

- Deenergize and ground Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.
- Twenty-foot clearance Ensure that no part
 of the equipment, load line or load (including
 rigging and lifting accessories) gets closer than
 20 feet to the power line by implementing
 the measures specified in 1926.1408(b). If the
 nominal voltage on a power line is over 350kV,
 this option is not applicable. Option 1 or option
 3 shall be followed.
- Table A clearance Determine the line's voltage and the minimum approach distance permitted under Table A below.

Contractors shall determine if any part of the equipment, load line or load (including rigging and lifting accessories), while operating up to the equipment's maximum working radius in the work zone, could get closer than the minimum approach distance of the power line permitted under Table A. If so, then the contractor shall follow the requirements of paragraph (b) of section 1926.1408 to ensure that no part of the equipment, load line or load (including rigging and lifting accessories), gets closer to the line than the minimum approach distance.

TABLE A — MINIMUM CLEARANCE DISTANCES

| Voltage | Minimum clearance distance | |
|------------------------------------|---|--|
| (nominal, kV, alternating current) | (feet) | |
| Up to 50 | 10 | |
| Over 50 to 200 | 15 | |
| Over 200 to 350 | 20 | |
| Over 350 to 500 | 25 | |
| Over 500 to 750 | 35 | |
| Over 750 to 1,000 | 45 | |
| Over 1,000 | (As established by the utility owner/ operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution). | |

NOTE: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV.

Where encroachment precautions are required under Option 2 or 3 as stated above, requirements shall be followed under section 1926.1408 (b) — Preventing encroachment/electrocution.



Operations Below Power Lines

Contractors shall ensure that no part of the equipment, load line or load (including rigging and lifting accessories) is allowed below a power line unless it has been confirmed by the contractor that the utility owner/operator has deenergized (at the worksite) and visibly grounded the power line. For detailed information regarding exceptions to this standard, refer to 1926.1408 or contact a local Access OA representative.

Training

The contractor shall train each operator and crew member assigned to work with equipment in accordance with 1926.1408(g)(1).

FALL PROTECTION

OSHA 1926.500-503, 1910.23

A mobile elevating work platform is any elevating device that is removable or permanently attached to a piece of equipment that allows employees to be lifted to perform work at heights. These include but are not limited to aerial lifts, scissor lifts, forklift carriage attachments and telescoping buckets. All personnel working from a mobile elevating work platform shall utilize personal fall-prevention or fall-arrest systems.

All work areas, walkways and platforms elevated four feet or more, whether permanent or temporary, shall be sturdy and enclosed by a guardrail system meeting minimum requirements. Where a guardrail system is not provided or is not practical, appropriate personal fall-prevention or fall-arrest systems shall be implemented.

Where guardrails are appropriate, they shall be equipped with a top rail, intermediate rail and, where personnel are located below the protected surface, a toe board meeting minimum height and weight capacity specifications.

Where fall-prevention or fall-arrest systems are appropriate, they shall be in the form of a

full-body harness, shock-absorbing lanyard (where height allows), a rope lanyard that prevents the user from reaching the leading edge or a self-retracting lifeline. Anchors used for attaching fall-protection equipment shall be capable of supporting the minimum weight specified by OSHA.

All fall-protection equipment shall be inspected before each use. Defective equipment shall be removed from service immediately.

Safety-monitoring Systems

When no other method of fall protection is possible, subsequent OSHA guidelines must be followed: OSHA 1926.502(h).

The Contractor shall designate a competent person to monitor the safety of other contract personnel and the Contractor shall ensure that the safety monitor complies with the following requirements:

- · Shall be competent to recognize fall hazards
- Shall warn the contractor when it appears that he/she is unaware of a fall hazard or is acting in an unsafe manner
- Shall be on the same walking/working surface and within visual sighting distance of the contractor being monitored
- Shall be close enough to communicate verbally with the contractor being monitored
- Shall have no other responsibilities which could take the monitor's attention from the monitoring function
- Shall not use mechanical equipment or store in areas where safety-monitoring systems are being used to monitor contractors engaged in roofing operations on low-slope roofs (4:12 pitch or less)



- Shall not allow contractors, other than personnel engaged in roofing work (on low-sloped roofs) or personnel covered by a fall-protection plan, in an area where another contractor is being protected by a safety monitoring system
- Shall direct each contractor working in a controlled access zone to comply promptly with fall hazard warnings from safety monitors

LADDERS

OSHA 1910.26-27, 1926,1053

Ladders appropriate for the job shall be selected and used in accordance with manufacturer's recommendations

Wooden and makeshift ladders are **PROHIBITED**. Ladders must be properly secured. Non-conductive ladders shall be used around electrical equipment. Personnel using ladders shall not overextend their reach — ladders should be moved to provide proper access.

The following precautions shall be taken when using ladders:

- Inspect ladders prior to use.
- Replace or permanently repair defective ladders immediately. Temporary repairs are PROHIBITED.
- Ensure proper footing and balance of the ladder is maintained over soil or other surfaces that may shift.
- Maintain at least three points of contact while on a ladder — two hands and one foot or one hand and two feet.
- Where possible, position the foot of the ladder a horizontal distance equal to one-fourth the distance from the top support to the ground. (Example — the top support of the ladder is at 12 feet in height, therefore the bottom of

the ladder should be positioned three feet horizontally from the vertical structure).

- Extend ladders a minimum of three feet above the top landing when accessing an elevated work area and when used for egress in trenches and excavations.
- · Do not use a step ladder as a straight ladder.

SCAFFOLDING

OSHA 1926,451

All scaffolding components and accessories shall be installed according to the manufacturer's instruction, utilizing parts and sections that came from the same manufacturer.

Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.

Contractors working on, assembling or disassembling scaffolding systems shall have specific training, knowledge, understanding and required skills prior to performing work on these systems.





Contractor Safety Handbook ACKNOWLEDGEMENT OF ACCEPTANCE

Please fill out and give a copy to the appropriate Access OA representative.

| COMPANY NAME |
|---|
| |
| |
| EMPLOYEE NAME |
| EMPLOTEE NAME |
| |
| |
| DATE |
| |
| |
| |
| I have received and agree to comply with the minimum requirements set forth by Access OA in |
| accordance with the guidelines in the Access OA |
| Contractor Safety Handbook while on any Access OA |
| location. |
| |
| |
| |
| |
| EMPLOYEE SIGNATURE |









Contractor Safety Handbook