The ARCO Way 1

ARCO is a safe workplace! We are committed to ensuring it stays that way, but it's going to take everyone. If any associate believes a condition to be unsafe, it is our policy that they report it to management. It is also a requirement that no unsafe tasks be performed. It is the individual's responsibility to report all accidents and injuries, and it's their right to do so without fear of retaliation.

ARCO Management's highest priority is making sure you feel safe at work. ARCO always has and will continue to devote substantial resources towards safety. Any safety-related request made to management will be granted all the resources necessary.

There is nothing more important than safety! Ideas to save money or shorten schedules will not even be considered if they, in any way, compromise the safety of our workers.

It is imperative that we work together to be proactive in providing a hazard free environment. This requires everyone to plan their activities before they start work. Items such as appropriate PPE, equipment inspections, fire protection, and required documentation should be in place before work begins. (Conducting work in this way allows the most efficient and safest use of time on the job site, and eliminates the most common excuses to not work safely.)

Everyone present on a jobsite has the right and a responsibility to stop unsafe work they see happening. Stop the unsafe action, then notify the ARCO representative on site. Remember these 3 rules:

1. **Nothing is more important than your safety!**
2. **Safety is an individual responsibility!**
3. **Working safely is a condition of employment!**

2 Subcontractor Responsibilities

The following are the responsibilities of all ARCO Subcontractors and are the minimum requirements for providing a safe job site work environment:

1. Site Specific Safety Plan / Hazard Communication Plan: Both documents must be provided BEFORE starting work and will be kept in the ARCO job site office for ease of access.

2. Job Site Safety Orientation: Prior to conducting work, all workers must be given a job site specific safety orientation from the ARCO representative on site.

3. Competent Person: Must be on site at all times while the subcontractor's work is being conducted. They must be able to identify hazards, stop work, and eliminate hazards. They must be able to speak, read, and understand English, along with being able to communicate with everyone in their crew.

4. Attend All Subcontractor Meetings: ARCO typically holds one job site meeting per week. Sometimes there can be more if there is critical or high risk associated work (i.e. steel erection) . The competent person MUST attend each of these meetings while they are conducting work on site.

5. Conduct One Tool-Box-Talk per Week: This must be accompanied with a legible sign-in sheet and turned in to ARCO. If the Subcontractor does not have access to a tool-box-talk ARCO will provide them to the subcontractor. See the ARCO on-site representative for more information.

6. Incident Reporting and Investigation: All near misses, injuries, illnesses, and property damage must be reported to an ARCO representative immediately! A written report must follow within 24 hours after the event. This is required even if the initial investigation is still on-going. A copy of the final report, if different than the initial one, is also required.

7. Opening and Closing of ARCO job sites: Subcontractors are NEVER, under any circumstances, allowed to work on a job site without permission. If a job site is closed, due to holiday or lack of ARCO supervision, the Subcontractor will be notified and will not be permitted to work. Conducting work on a closed ARCO job site is grounds for termination from the project.

8. Training of Workers, Licenses and Qualifications: ARCO provides site specific safety orientation for workers, but it is the responsibility of the Subcontractor to make sure that competent and/or qualified personnel are only operating tools and equipment they are trained to use. Documentation of this training may be requested at any time by ARCO.

ARCO will ask for operator licenses/certifications/ qualifications for equipment such as forklifts, scissor lifts, and boom/aerial lifts, before workers are allowed to operate it on site. ARCO will retain copies of this documentation in the job site office for ease of access.

All of the above rules are in place to protect everyone on site. If there are ever any questions, do not hesitate to contact the ARCO representative for clarification.

4 Disciplinary Policy

ARCO has a "three strikes, you're out policy." When a worker is found violating safety policies three times, they will be removed from the job site and not allowed to return. This is for the worker's safety as much as the safety for everyone else on the job site.

1st Violation: The worker will be ordered to stop work and be given an opportunity to correct the issue. The Subcontractor's Competent Person will be notified of the infraction, and the event will be recorded.

2nd Violation: The worker will be ordered to stop work and be given an opportunity to correct the issue. A Safety Violation will be written up and issued to the Competent Person and the Subcontractor's Office.

3rd Violation: The worker will be ordered to stop work and removed from the job site. A Safety Violation will be written up and issued to the Competent Person and the Subcontractor's Office.

The ARCO associate may conduct additional actions depending on the severity of the violation. This could include, but is not limited to, sending the worker home for a day, requesting they get additional training before returning to work, or if it is a severe infraction, removing them from the job site after the 1st violation.

Sanitation: Urination or defecation outside of designated areas is prohibited**.** ARCO provides toilets/handwashing facilities.

Housekeeping: It is the Subcontractor's responsibility to maintain good housekeeping at all times throughout the work day/shift. A clean job site is a safe job site! ARCO will provide dumpsters for waste disposal. It is the Subcontractor's responsibility to get garbage and debris into the dumpsters.

NEVER throw or drop material from an upper elevation without a designated trash chute.

Destruction or Theft: Deliberate destruction, defacing, marking, or theft of properly is illegal and will result in the immediate expulsion from all ARCO job sites.

Entertainment: Playing music with AM/FM radios or similar devices like smart phones, even with head phones or ear buds, is prohibited at all times. Two-way radios, such as walkie-talkies, are allowed for work related activities.

Emergency Items: Never block routes of egress, eyewash stations, or fire extinguishers with equipment or materials.

Hazard Identification: Use CAUTION tape to identify a hazard to other workers. Use DANGER tape to keep other subcontractors out of high-risk areas. NEVER remove tape that is not yours.

6 Daily Pre-Task Safety Analysis

For a Safety Plan to be successful, it requires constant vigilance and adaptation to the changing environment. The hazards at a construction site at the start of a shift could look nothing like the hazards at mid-day or near the end of a shift. Because of this, each Subcontractor's "Competent Person" must perform a daily pre-task safety analysis with his crew, and plan accordingly.

1.Coordinate all material and equipment deliveries with ARCO so they do not create a hazard to others on site.

2. Brief all workers on work and associated hazards. This is to be done each shift / day.

3. Allow for time to inspect all tools and equipment that will be used that shift / day.

4. Appropriately block and / or barricade all hazards so other Subcontractors know which areas to stay out of.

5. If safety items, such as fall protection railings, are removed, make sure they are replaced when work is completed. Never leave a hazard behind!

6. Allow for time to clean up tools and waste materials. A clean job site is a safe and efficient job site.

Lastly: The weekly Subcontractor meeting is used to coordinate work between Subcontractors that might be working in the same areas. Your participation is required!

While it is always the best practice to engineer out hazards in the workplace, the nature of construction does not always allow for this. Portable tools, operations, and the inherent risk of construction requires workers to always be vigilant and wear personal protective equipment (PPE).

ALL PPE MUST BE INSPECTED AT THE BEGINNING OF EACH SHIFT AND REPLACED IF NO LONGER ABLE TO PROVIDE PROTECTION!

Required PPE on all ARCO job sites, at all times consists of:

1. **Minimum ANSI Z89.1 approved Hard Hat**
2. **Minimum ANSI Z87.1 approved Safety Glasses, prescription glasses must have approved side shields**
3. **High-visibility outerwear (fluorescent orange, yellow/green, or pink) must be ANSI class II when working in a right-of-way and class III if at night in a right-of-way.**
4. **Shirt with sleeves (4" minimum)**
5. **Long pants that cover to the ankles**
6. **Footwear: closed toe, hard soled, leather type**

Additional job specific PPE includes, but is not limited to: gloves, welding face shield, standard face shield, fall protection harness, appropriate fall protection lanyard(s), hearing protection, respirator (may require documented fit test), and cut resistant chaps.

MANDATORY JOBSITE DRESS CODE

VESTIMENTA DE TRABAJO OBLIGATORIO

HARD HAT
CASCO

SAFETY GLASSES
GAFAS DE SEGURIDAD

EAR PROTECTION
(AS REQUIRED)
PROTECCIÓN PARA LOS OIDOS
(COMO ES REQUERIDO)

PROPER CLOTHING
PANTS & SLEEVED SHIRTS
PANTALONES & CAMISA MANGA LARGAS

SAFETY VEST
CHALECO DE SEGURIDAD

SAFETY GLOVES
(AS REQUIRED)
GUANTES DE SEGUIRDAD
(COMO ES REQUERIDO)

FALL PROTECTION
(AS REQUIRED)
PROTECCIÓN CONTRA CAIDAS
(COMO ES REQUERIDO)

WORK SHOES
BOTAS DE TRABAJO

The ARCO on-site representative will have an Emergency Action Plan posted in the job site office.

In case of a FIRE or EMERGENCY EGRESS incident: The ARCO representative will notify subcontractors. Safely make your way to the first rally point. If that area is not safe, move to the secondary rally point. Do not go to your car or home. A count must be taken to make sure all workers are accounted for! Leaving the job site before being counted could endanger first responders who will be looking for you!

If a worker is SERIOUSLY INJURED: Notify your Competent Person or the ARCO representative, have someone contact 911 emergency services, and begin life saving first aid within your skill level. Remember to have someone meet the emergency services at the job site entrance, and guide them to the location of the injured person.

In case of a SEVERE STORM or FLOOD: You will be notified by your Competent Person who will be notified by the ARCO representative if the situation requires you to shelter or leave the job site. If you need to shelter, you will be informed where.

In case of a TORNADO: Inside a building, find a location with no windows and/or is hardened with concrete/block walls, preferably next to a foundation. Outside of a building, do not get in a car. Seek shelter in a ditch or other low location. Flying debris is the most serious hazard during a tornado.

10 Hazard Communication Plans

Every Subcontractor on site has provided ARCO with a written copy of their Hazard Communication (HAZCOM) plan and is located in the ARCO job site office. Their HAZCOM plan consists of a list of every chemical you may come into contact with on the job site, their SDS sheets, and how to conduct first aid if exposed. The SDS are available to you any time the job site is open for work to Subcontractors.

In an emergency call 911.
In a non-emergency call the American Poison Control Center 1-800-222-1222.

In either case, have the chemical SDS, label, or container readily available. Inform the emergency operator of the type of exposure (skin contact, eye contact, ingestion, etc.) and the length of time of exposure.

Never induce vomiting unless directed to by the emergency operator!

Remember that after conducting initial life saving measures, notify ARCO immediately of any incident on site. Follow up with a written report within 24 hours.

Limited Access Zones 11

A Limited Access Zone (LAZ) is a designated area that has very hazardous work on-going. These areas are identified with either DANGER tape, cones, or barrels with LAZ signs, or some other highly visible method.

UNLESS YOU ARE PART OF A LAZ OPERATION NEVER CROSS OR ENTER A LAZ!

LAZ for Steel Erection: The LAZ must be the height of the tallest steel plus twenty feet (Tallest steel + 20' = LAZ). If using a crane, it is 100 feet from the crane or the height of the steel plus 20 feet, whichever is a larger area.

LAZ for Block Walls: Block walls eight feet tall or taller require the LAZ to be the height of the wall plus four feet and must be set up to it's maximum height before construction on the wall begins (maximum height + 4' = LAZ).

LAZ for Concrete Tilt-Up/Pre-Cast Panels: ARCO requires a LAZ for Tilt-Up/Precast Panel erection to be established around all sides of the lift operation. The LAZ shall be the height of the panel plus 4 feet (panel height + 4' + LAZ).

LAZs can be used for any operation that needs to keep everyone a safe distance away. The distances above are the minimum requirements, and it is recommended they be larger to accommodate for moving operations.

12 Guarding and Barricading

As construction progresses, guards and barricades must be maintained to ensure workers are protected from hazards.

Roof Warning Lines: Must be located 15 feet from the leading edge of a roof unless fall protection is provided. (If ONLY roofers are on the roof, then they can be located at 6 feet from the leading edge.) They must be of adequate tensile strength and flagged at least every 6 feet. CAUTION and DANGER tape can NEVER be used as a warning line!

Rebar / Reinforcing Steel: Any rebar that provides an impalement hazard must be guarded by rebar caps or another approved method that completely eliminates the impalement hazard.

Upper Level Holes: Any hole that is 2 inches, or more, in diameter must covered by material that will hold twice the intended weight and be marked with the word “hole”. If the covering is too small to write on, it will be marked with a high-visibility color.

Ground Level Holes: Holes that do not create a fall hazard of 6’ or more shall be marked with cones, CAUTION tape or some similarly attention-getting way to identify the hazard to workers and equipment operators.

Drop Off Less Than 6’: Areas that have sudden drop offs that are too shallow to call for fall protection, such as truck docks or small excavations, should be marked with cones, CAUTION tape, or some similarly attention getting way to identify the hazard to workers and equipment operators.

Fall Protection (Railings) 13

Falls are the number one cause of fatalities in the construction industry. OSHA standards for fall protection can be confusing since they are different depending on the trade and scope of work. To eliminate any confusion, ARCO has adopted a rule of, “fall protection at 6 feet for all workers”.

ALL WORKERS ARE REQUIRED TO HAVE FALL PROTECTION AT SIX FEET OR HIGHER!

Solid Railing Systems: Guardrails must be able to withstand 200 lbs. of lateral force. Must consist of a top rail at 42 inches +/- 3 inches. Must consist of a mid rail located half way between the top rail and the working surface.

Cable / Wire Railing Systems: Must consist of a top and mid-rail at the same heights of a solid railing system. Must not have more than 3 inches of deflection in any direction. Must be secured by no less than 3 cable clamps. Top cable must be flagged every 6 feet. (Colored duct tape works best for flagging since it does not slide down the cable in the wind.)

Toe Boards: All surfaces that have ongoing work or materials stored on them must be protected by a toe board to prevent tools and materials from falling off and striking workers below. Toe boards must be a minimum of 3.5 inches in height. If materials next to the toe board are stacked higher than it, then additional netting or barriers must be erected to prevent them from falling.

14 Fall Protection (Lifts / Scaffolds)

Lifts and scaffolds are some of the most common equipment in the construction industry. Because they have workers at a potentially dangerous heights, is it important to know how they fit into the fall protection standard.

Scissor Lifts: Scissor lifts are considered by OSHA to be "mobile scaffolds" and as such their integrated railing systems and toe boards are adequate for providing required fall protection. Remember, gates and chains must always be in the closed position when the equipment is in operation.

Aerial / Boom Lifts: The boom arm on this type of lift magnifies small changes elevation on the turret end and can throw the basket wildly, resulting in the ejection of the occupant(s). Because of this, all manufacturers of these lifts require the workers in the basket to wear harnesses with non-shock absorbing lanyards. Retractable or restraint type lanyards, which qualify as fall restraint, are required any time a worker operates, rides, or works from a boom lift.

Scaffolds: Scaffolds need to be assembled and disassembled per their manufacturer's guidelines and by a Competent Person. Scaffolding must comply with all OSHA & ARCO standards, including fall protection at heights of 6 feet or more. All scaffolds must have toe boards on their working levels! ARCO does not consider LAZs as an adequate form of protection from falling material to the outside of the scaffold.

Fall Protection (Harness / Lanyards) 15

A Personal Fall Arrest System (PFAS) is a common way to protect workers that are exposed to a leading edge. A PFAS consists of a full-body harness, connecting device, and an anchor point.

Inspections: All components of a PFAS must be inspected for damage before each use. If it shows any rips or tears, tag it, “out of service”.

Hooking up: Never wrap a lanyard around something and hook it back to itself or hook multiple lanyards together

Anchor Point: Must be capable of supporting 5,000lbs. Temporary anchor points, such as “butterfly” D-rings, must be properly secured to a structure to provide adequate protection. See manufacturer’s guidelines.

Fabric Lanyards or Rope Grabs: Cannot be used when the leading edge is metal deck or another sharp material that would cut the lanyard, or rope, if a worker were to fall.

Rescue Plan: Anytime a worker is using a lanyard, whether in a lift or on a leading edge, the Subcontractor must have a rescue plan in place. Permanent damage can be caused to a worker that is left hanging for as short a time as 15 minutes.

Heights less than 18.5 feet: In the case of a worker being exposed to heights less than 18.5 feet, but more than 6 feet, a restraint lanyard or self-retracting lifeline (SRL) is required to prevent workers from striking the lower level.

OSHA regulations covering fall protection can be complicated, or confusing. Please contact the ARCO representative on site if you ever have questions, or concerns.

Boomlift Fall Protection

UNACCEPTABLE:

A Standard 6 foot Bungee (or rip-away) lanyard is not an acceptable means of tie-off in a boom lift. This is because these types of lanyards need approximately 18.5 feet to successfully keep you from hitting the ground. Therefore, the only type of lanyards that should be allowed in boom lifts are the “hard / restraint-type” lanyards or Self-Retracting Lifelines (SRLs) aka Yo-Yos.

ACCEPTABLE:

Tie-Offs in Lifts: Anyone in a boom lift must be tied off using a restraint-type lanyard or Self-Retracting Lifeline (Yo-Yo). Bungee or “Rip” type lanyards are not permitted in a boom lift!

Lockout/Tagout programs are established to allow for a controlled systematic way to shutdown and de-energize equipment and utilities before maintenance, inspection, servicing, and cleaning. This includes, but is not limited to, electrical, hydraulic, thermal, chemical, kinetic (stored), etc.

Never work on equipment unless you verify it has been fully isolated from outside sources and brought down to zero energy. (Even doing something simple, like replacing a blade on a circular saw, should include unplugging the saw itself from any outlet or extension cord to prevent unwanted and sudden operation.)

For more complex machines with multiple energy sources, you should consult the manufacture's instructions for a written procedure. Always follow manufacturers' procedures.

Locks and keys used for lockout/tagout should not be used for any other purpose.

If you encounter a lock or tag, never attempt to use that equipment or utility. Only the person that placed the lock or tag may remove it. You will most often see these on temporary and permanent power sources during the construction process. Realize they are in place for a reason, and never try to remove them.

ARCO retains the right to remove tags/locks if the Subcontractor that installed them cannot be reached.

18 Operating Hand Tools

Power and hand tools are one of the most common hazards on any job site. While incredibly useful, they can cause severe injury including amputation or loss of eyesight.

Never operate a tool you have not been trained to use: If you need training or have questions about how to operate a tool, make sure you ask your supervisor.

Always inspect all tools before use: Because of their frequent use, tools become worn out or damaged, so always inspect for:

- Ground pin is intact and the cord is free of damage.
- The operating point is in good shape (blades and bits should not be dull, twisted, or broken).
- All manufacturer factory installed and required guards are in place and working properly.

If the tool is being used on concrete or another silica based product, it must have the appropriate functioning vacuum attachment or water delivery system per OSHA table 1 or other testing. (see section 30)

Always follow the manufacturer's recommendations: The vast majority of injuries occur when tools are operated outside of their intended scope of use or missing required parts such as guards or other safety devices. Never operate a tool that is missing parts, or operate it in an unsafe manner.

Vehicles and equipment are common on job sites as they allow workers to complete difficult tasks quickly and efficiently. Great care must be taken when operating equipment.

Inspections: Equipment shall be inspected at the start of each shift. Inspections must be documented. Every piece of equipment must be equipped with a fire extinguisher!

Alarms: All equipment must have a working back-up alarm.

Restraint Systems: A seatbelt or other restraint system shall be worn by the operator and passengers. Workers are never allowed to ride in the back of a pick-up truck on site.

Training Requirements: All operators must be adequately trained on all equipment they are operating. Documentation of training must be made available.

Phone Use: Operators may NEVER talk or use a phone for any reason while running equipment. This includes texting, messaging, or any other function of a modern smartphone.

Power Lines: Equipment must stay a minimum of 10 feet away from powerlines (up to 50kV).

Equipment Specific Safety Requirements:

Boom/Ariel Lifts: Because of their necessary design to reach out to places, these lifts have the potential to throw the occupant(s) from the basket. This means that OSHA does NOT consider the railings as adequate fall protection, and since they operate at heights of less than 18.5 feet, a retractable (yo-yo), straight, or fixed length lanyard is required! You may NEVER use a shock-absorbing type of lanyard in a boom lift.

Industrial Lift Truck/Fork Lifts: Forklifts have very specific OSHA rules for training and operations. No one should ever operate a fork lift unless they are properly trained and have documentation of training available. In addition, observe the following:

No Free Rigging: Rigging may never be directly attached or wrapped around forks. Rigging must always be positively attached when lifting, either by hook or jib type attachments. (All of the major equipment rental companies have such attachments available.)

Forklifts Do NOT Lift People: Workers should never, under any circumstances, ride or stand on the forks of a forklift.

Overhead Hazards: Because of the vertical reach of a forklift, they are especially susceptible to making accidental contact with overhead power lines. At a minimum, forklifts should always be operated at least 10 feet from all energized lines.

Elevated Loads: A load should always be lowered to the ground before exiting the cab.

Cranes are some of the most dangerous and complex machines used in the construction industry. Because of this, planning and coordination is required.

Assembly: Assembly must be directed by one person that is both "Competent" and "Qualified" or one person that is "Competent" that is assisted by another person that is "Qualified".

Inspections: Just like all other pieces of equipment, a crane must be inspected at the beginning of each shift, and all inspections must be documented. The crane's annual inspection must be submitted to ARCO before any use of the crane can begin. Copies will be kept in the ARCO job site office.

CCO License: Almost all uses of a crane require the operator to be a "Certified Crane Operator" (or CCO) in accordance with the 2018 Crane Standard. This certification must be submitted to ARCO before any use of the crane can begin. A copy will be kept in the ARCO job site office.

Swing Radius: The swing radius of the turret and counterweight of the crane must always be barricaded when in operation.

Rigging: All rigging must be supervised and checked by a "Qualified" rigger.

Signal Person: When conducting crane operations, one worker must be designated as the Qualified Signal Person. No other workers are allowed to give signals to the crane operator. The Signal Person and the Crane Operator must discuss signal use before any use of a crane begins.

Lift Plan: A lift plan shall be submitted to ARCO prior to any lifts. The plan shall contain information on the most critical lift to prove adequate crane capacity.

Crane operations are an impressive type of work that people like to watch. However, those not related to the work can be unaware of the potential danger and get too close. Because of this, it is REQUIRED that workers not associated with the operation, and the general public, be kept at a safe distance.

A **Limited Access Zone (LAZ)** shall be established any time a crane is in use. All subcontractors will be informed of the crane operations and LAZ.

Minimum LAZ requirements related to crane use:

LAZ for Steel Erection: The LAZ must be the height of the tallest steel plus twenty feet (Tallest steel + 20' = LAZ area).

LAZ for Concrete Panels or Pre-Cast Panels: ARCO requires a LAZ for Tilt-Up/Precast Panel erection to be established around all sides of the lift operation. The LAZ shall be the height of the panel plus 4 feet (panel height + 4' + LAZ).

Electricity is a necessity on a modern job site, however, proper care must be taken to make sure it is used safely. Because of the potential lethality of electrical hazards, OSHA considers any violation having to do with electrical hazards a serious violation.

Electrical Circuits: Only authorized personnel shall work on, or operate, electrical circuits on a job site. Breaker panels must always be kept shut and be labeled as to their use.

Extension Cords: All cords must be 3-prong and grounded, of 12 gauge or thicker, and rated for heavy-duty use. They should also be inspected before each use and taken out of service if defective.

Power strips: Standard power strips are not rated for heavy-duty use and should never be used on a job site. A heavy-duty "three-way" or similar device must be used instead.

GFCI: A Ground Fault Circuit Interrupter (GFCI), which trips after only 5mA of fluctuation, is required on every source of temporary power! GFCIs must also always be plugged into the first outlet to provide proper protection, not at the user end of an extension cord.

Temporary Lighting: Cannot be on the same circuit as other temporary power since a tripped circuit from a power tool could darken the entire job site. Temporary lighting shall not be hung from sharp hangers, and must be protected from sharp edges. All sockets must have a bulb, and all bulbs must be protected by cages.

Guarding: Live parts of electrical equipment operating at 50 volts or more shall be guarded against by cabinets, forms of enclosures, location in a room, partitions or screens, location, elevation of 8 feet or more, and/or warning signs forbidding unqualified persons to enter (i.e., "Danger, High Voltage, Do Not Touch"). 1926.403

Hot Work

Hot work is defined as soldering, cutting, grinding, welding, or an activity that produces, sparks, flame, or excessive heat. Always check with the ARCO representative on site if hotwork permits are required.

Check Work Area: Always check to make sure no flammable or combustible material will be exposed to your work. This includes checking above, below, and on the other side of walls and deck. Have a fire extinguisher within 25 feet of the location, and if working from a lift, it must also be in the basket.

PPE: When welding, make sure to wear a welding face shield with a hard hat and welding gloves. A Fire Resistant (FR) shirt or overcoat is also required. Never wear a non-FR high-visibility vest when welding because the material could melt and stick to the skin. Cutting or grinding metal requires the use of a clear face shield with a hard hat and gloves.

Weld Screens/Flash Barriers: Typically, welding and other hot work is completed before other trades work in close proximity. However, if other trades are nearby or hot work is being done in a high traffic area, a barrier may be required.

Carbon Monoxide (CO): Hot work (especially welding) produces large amounts of toxic Carbon Monoxide. Always make sure hot work is being conducted in a well ventilated area, and stop all work if any symptoms (headache, dizziness) begin.

HOT WORK PERMIT

PERMIT VALID ON THIS DATE ONLY. POST COPY AT WORK AREA.

To Be Completed by Authorized Worker

Date: _____ Time: _____
Crew: _____
Bldg./ Area: _____
Description of Work: _____
_____
_____
Anticipated Start Time: _____
Anticipated End Time: _____
Unusual Conditions:

❑ Confined Space ❑ Potentially Hazardous Environment
❑ Close Quarters ❑ Work on Flammable or Combustible Containers (Follow NFPA 327)

Fire Watch

Assigned: ❑ Yes ❑ No
Name of Fire Watch: _____
Post-Shift Fire Watch: ❑ Yes ❑ No
Name of Post-Sift Fire Watch: _____
Outside Contractor: ❑ Yes ❑ No
Hot Work Procedures have been Explained to Contractor's Rep. and Will be Followed:
Signed: _____
(contractor's authorized representative)
Name: _____
(contractor's firm)

Time Work Started: _____ Completed: _____
Performed by: _____

Authorized Worker must inspect the work area prior to approving *any* Hot Work. The following NFPA prescribed precautions are to be in place to help prevent fire loss.

Cutting and welding equipment is in good repair..... ❑ Yes
Fire extinguishers readily available within 25 feet..... ❑ Yes
All lint and other combustible material has been removed within 35 feet of the work area……..... ❑ Yes
Sprinklers are in service..... ❑ Yes ❑ N/A
Floor has been swept clear of combustibles within 35 feet of operations..... ❑ Yes
Combustible floors and materials within 35 feet of Operations have been wet down or otherwise protected.. ❑ Yes ❑ N/A
All combustible or flammable liquids within 35 feet Have been removed..... ❑ Yes ❑ N/A
Combustible or flammable liquids and hydraulic lines Are protected with covers, guards or metal shields..... ❑ Yes ❑ N/A
All wall and floor openings, including conveyor Openings, within 35 feet of operations are covered with Noncombustible material..... ❑ Yes ❑ N/A
Fire blankets are used to contain sparks……..... ❑ Yes ❑ N/A
Partition, wall, ceiling or roof involved in hot work Verified as not containing combustible covering or Sandwiched materials..... ❑ Yes ❑ N/A
Combustibles moved away from opposite side of wall on which Hot Work is performed..... ❑ Yes ❑ N/A
Enclosed tanks, ducts, dust collectors and other containers which are the subject of Hot Work have been cleaned of all combustibles..... ❑ Yes ❑ N/A
Containers have been purged of all flammable or combustible vapors per NFPA 327 and tested..... ❑ Yes ❑ N/A
Confined space permit program also implemented..... ❑ Yes ❑ N/A
Fire watch will be provided during Hot Work and for 30 minutes thereafter..... ❑ Yes
Fire watch trained in the use of extinguishing equipment, fire alarm system and procedures for calling the fire department..... ❑ Yes

THE LOCATION CITED HAS BEEN INSPECTED. THE NECESSARY PRECAUTIONS TAKEN AND PERMISSION IS GRANTED FOR THIS WORK.

AUTHORIZED WORKER: _____

FIRE SAFETY SUPERVISOR: _____

FINAL CHECK OF HOT WORK AREA MADE AT: _____ (1/2 hour after hot work)
(time & date)

FIRE WATCH: _____
FIRE SAFETY SUPERVISOR: _____

Fuels, equipment engines and exhaust, portable generators, batteries, electrical power, and hot work are all potential sources of ignition. Because fire has the potential to cause serious harm to people and a total loss to the project, the following fire-safety standards must be followed:

Smoking: Is only allowed in designated areas, which should never be within 50ft of fuel storage, regardless of how much fuel is stored there (including compressed gas cylinders).

Fire Extinguishers: Should be of ABC type, must always be within 100 feet of linear travel from where any work is taking place, and within 25 feet of any operational internal combustion engine (i.e. portable generators) or hot work. All fire extinguishers must be inspected once a month to make sure they are still operable with the inspection documented either by individual tag or running list.

Equipment: All operational equipment that runs off of internal combustion engine or batteries must have a mounted fire extinguisher on it. The fire extinguisher should be in the basket of any lift with the workers if they are performing hot work.

Fuel Storage: All bulk fuel storage (for refueling equipment) must be marked with a “NO SMOKING” sign. A fire extinguisher must be placed MORE than 25 feet, but LESS than 75 feet, from the fueling point. Fuel storage must be 20 feet away from all buildings including job site trailers/field offices.

Compressed Gas Cylinders 27

Compressed Gas Cylinders are commonplace on most construction sites. To make sure they are used and stored safely, these procedures must be followed:

Positioning: All compressed gas cylinders must be used and stored in the vertical upright position and secured from falling over. Also, there should be great care given to where tanks are placed, both in storage and when in use. Keep them away from stairways, doorways, or other high traffic locations to prevent them from being hit and damaged by others.

Arrestors: Flashback arrestors are required on all gauges, unless arrestors are built into the torch handle.

Protection Caps: Valve protection caps shall be in place and secured whenever cylinders are not in use such as at the end of shift, when they are empty, in storage, or when being moved.

Oxygen and Acetylene: Tanks containing these gasses are to never be stored together, remaining at least 25 feet apart, or with a barrier of at least a 30 minute burn rating.

Propane: Tanks containing propane are never allowed to be stored inside a building under any circumstances. They must always be stored in a locked cage, or container outside the building or off-site. A propane tank is not to be considered stored if it is attached to the piece of equipment it is providing fuel to (i.e. forklift).

Hand Protection

A large part of working in construction requires manual material handling. When working with tools or materials that have sharp edges or corners, realize they can easily cause a cut or gash that requires a visit to an emergency room and stitches.

ANSI has a protection rating system for all gloves that give the wearer an idea about the level of cut protection they provide.

1 or A1 Light cut hazards: Material handling, small parts assembly, packing and general purpose.

2/3 or A2/A3 Light/Medium cut hazards: The above plus automotive assembly type handling of finished metal product.

4 or A4 Medium cut hazards: The above plus drywall work, electrical, carpet installation, HVAC, and metal fabrication.

5 or A5 Medium/Heavy cut hazards: The above plus glass handling.

A6/A7/A8/A9 Heavy cut hazards: The above plus metal stamp handling, glass manufacturing, window manufacturing, and meat processing.

Workers must wear gloves when handling metal framing, steel installation, glass installation, drywalling, HVAC and duct work, or whenever using a utility knife or blade to cut material.

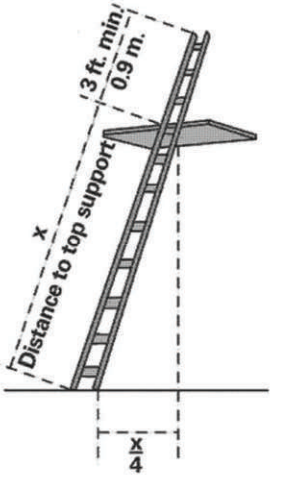
Ladders are one of the leading causes of severe injuries to workers, and almost every incident is because the worker was not using the ladder properly.

Inspections: All ladders should be inspected at the beginning of each shift before use and taken out of service if damaged.

Use: Always ascend and descend facing the ladder and keeping 3 points of contact at all times.

A-Frame / Step Ladder: Must always be used in the open position. It can NEVER be used in the closed position leaned up against something or used to gain access to another level.

Extension Ladders: Must always be secured at the top to prevent displacement, and must be secured at the bottom as the first worker goes up to secure the top. Must always be at a 4:1 ratio and extend at least 3 feet above the upper landing surface.



The Belt Buckle Rule: When working off a ladder, never climb the top steps in guidance with the warning labels provided by the manufacturer. When working from the middle of a ladder, always keep your center of gravity (your belt buckle) between the siderails of the ladder to prevent it from falling over.

Silica is found in many of the products/materials used/encountered on ARCO Projects. For example: Safety Data Sheets for concrete indicate a potential for up to 90% crystalline silica. Silica dust can also be readily released through the various tasks performed by ARCO and its Subcontractors.

The specific activities performed on ARCO projects that potentially expose our associates and subcontractors to silica dust include, but are not limited to: Surface preparation activities involving concrete, stone, and asphalt, jack-hammering, walk-behind saw cutting, handheld saw cutting, drilling, grinding, mixing operations, sanding of drywall compound, and housekeeping operations (sweeping, blowing, etc.).

Contractors will ensure each employee under their supervision and engaged in a task identified on OSHA's Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task. For more information regarding compliance with OSHA's Table 1, please see the ARCO Safety Manual or ARCO Silica posters (examples below.)

This handbook is meant to be a guide to safety on ARCO job sites and, by no means, is a complete list of all local, state, federal and ARCO safety rules, regulations, standards, and policies.

This handbook is a starting point in covering safety that you, as a professional subcontractor, should already be familiar with, and reiterate policies and regulations that you have already been previously trained on. However, if you should ever have a question or concern about the construction process, you are encouraged to contact your ARCO representative, and bring up concerns when it comes to conducting work safely.

ARCO is extremely dedicated to having a safe working environment on its job sites, and we look forward to working with you to overcome challenges in the field both now and in the future.

The ARCO SAFE Team

THE ONLY WAY

THE SAFE WAY

THE ARCO WAY

Safety Orientation Acknowledgement

READ CAREFULLY BEFORE SIGNING BELOW

This is to acknowledge that I received my copy of the ARCO SAFE Safety Handbook and a site specific safety orientation from the ARCO associate on site. I also acknowledge that I watched and understand the ARCO SAFE safety orientation video in its entirety. I also understand that working safely, complying with, and obeying any and all ARCO safety rules, regulations, and standards is a condition of my allowance to work on the job site. Should I not comply, I am subject to disciplinary action to include removal from the job site and possibly being barred from working on ARCO job sites in the future. I also understand that this Safety Handbook and its' contents are a general guide to rules, regulations, and standards on ARCO job sites and are dependent to change based on the city, county, or state the job site is located in.

_____

Print Name

_____

Sign Name

_____

Company Name

Date: _____