# Anthony A. Amiano

## CONSTRUCTION COMPANY, INC.

Interior Contractors

# INDUSTRIAL SAFETY PROGRAM
# ANTHONY AMIANO CONSTRUCTION COMPANY, INC.
# Implementation Date October 18, 2006

**Anthony A. Amiano**
**President**

**Dolores M. Amiano**
**Vice President**

**Anthony A. Amiano**
**Company Safety Officer**

**Anthony Amiano Construction Company Incorporated will be referred to throughout this manual as AACCI, Amiano, Amiano Construction, or Anthony Amiano Construction.**

# Anthony Amiano Construction Company, Inc. Safety and Health Program
# Corporate Policy Statement



The common goal of Anthony Amiano Construction Company Inc.'s safety program since AACCI's original inception twenty-five years ago, is the health and safety of our direct employees and also our associates' employees, including the people in or near our new work area. Each employee is responsible on all levels to maintain safe operations.

We, as a company, have a responsibility to comply with all applicable laws, maintain safe work places, and maintain safe equipment. Every employee has the unwritten and written obligation to inform his superiors of any unsafe conditions existing in the workplace, even if it is another Contractor's or the Owner's area. All and any equipment, from drills to backhoes and cranes, must be devoid of any defects, and have a cautious Operator. Since it is Anthony Amiano as owner, I assume full responsibility for our operation; however I need full cooperation of all our employees and subcontractors to help keep a safe workplace.

AACCI will constantly do our best to create and maintain a safety and health program that will be constantly upgraded to grow with our changing methods of productivity, materials, and equipment. The objective of our updated program is to reduce accidents and illnesses to an absolute minimum as we have done in the past.

# ANTHONY AMIANO CONSTRUCTION COMPANY INC. COMPANY SAFETY PROGRAM

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Health & Safety Guidelines

Program Responsibility
Anthony Amiano is company safety officer, and is responsible for any management changes or deletions. He is also authorized as owner to make necessary changes to ensure the quality and success of this program.

We will develop any written instructions to go along with verbal instructions covering all elements of our program. We will stop any authorized or unauthorized operation when there is a danger of injury.

Program Content
Amiano Construction's health and safety program will include the development and maintenance of the following:
1. Company health and safety program guidelines.
2. Written programs.
3. Safety committee.
4. Routine safety and health inspections.
5. Safety meetings.
6. Accident and incident reporting.
7. Accident investigation.
8. General safety rules.
9. Disciplinary actions for willful unsafe acts.

1. Health and safety program guidelines.
Amiano Construction will review and evaluate this program on an annual basis or when changes occur in any regulated document. Amiano Construction will follow all OSHA guidelines and procedures as a standard for our programs. See previous page for our individual programs associated with our company policies.

2. Routine safety and health inspections of all company and employer work site will be conducted before start of work. Host company safety officer will conduct a safety meeting consistent with his company's safety program. The more stringent regulations will be followed and before start of work site safety officer will accompany Amiano employees around construction site and storage facilities prior to starting work.

Host safety officer involvement. The senior AACCI employee on site will coordinate with the host safety officer to establish work site inspection dates and times.

Host work site safety inspection intervals. The senior AACCI employee on site will coordinate safe-work inspection times and dates with the host safety officer. Work site safety inspections will be conducted before start of work and periodically during the period our employees will be present on site. Inspections will be conducted as a minimum, before work, on a daily basis.

Hazard priority classification system. Hazards will be rated according to the following rating system. Where it is unclear where a hazard should be rated the next higher priority classification will be assumed.

Priority One Hazard. The most serious type of unsafe condition or unsafe work practice that could cause loss of life, permanent disability, the loss of a body part (amputation or crippling injury), or extensive loss of structure, equipment, or material.

Priority Two Hazard. Unsafe condition or work practice that could cause serious injury, industrial illness, or disruptive property damage.

Priority Three Hazard. Unsafe condition or work practice that might cause a recordable injury or industrial illness or non-disruptive property damage.

Priority Four Hazard. Minor condition, a housekeeping item or unsafe work practice infraction with little likelihood of injury or illness other than perhaps a first-aid case.

Inspection elements. The following inspection elements will be checked during safety inspections. Where an individualized safety program exists, the company standard practice instruction will be used as the basis for development of inspection criteria.

| Element | Criteria |
|---|---|
| Floors | Condition, slip, trip, falls |
| Aisles | Marking, obstructions |
| Stairs | Condition, railings, obstructions |
| Ladders | Condition, metal in electrical areas |
| Scaffolds | Condition, nonskid, level, two feet wide |
| Lighting | Suitable illumination for work |
| Exits | Obstructions; locked?, lighted? |
| Ventilation | Adequate; maintained, and fans guarded? |
| Noise control | 85db or less?, hearing protection? |
| Hand tools | Grounded, guarded, pressure switches |
| Machine tools | Guarded, stop buttons, training? |
| Chemicals | MSDS's, labels, storage, separated |
| Hoists / lifts | Load limits, unrestricted view, limits |
| Compressed gas | Storage, heat sources, labels, training |
| Guarding | Installed, over, under, around, between |
| Forklifts | Licenses, checklists, capacity, keys |
| Lockout tagout | Procedures, training, devices, tags |
| Eye protection | Used, training, Z-87 rated protectors |
| Fire protection | Extinguishers, training, locations |
| First aid | Kits, OSHA 300 logs, training |
| Waste disposal | Containers, labeled, separated |
| Building exterior | Defective overhangs, lighting |
| Building interior | Defective overhangs, lighting |
| Yards / roads | Obstructions, housekeeping, signs |
| Confined spaces | Marked, training, ventilation, equipment |
| Elevators | Good repair, load rating, inspected |
| Offices | Floors, aisles, exits and ventilation |
| Power systems | Mechanical, hydraulic, electrical |
| Work practices | Unsafe work practices observed? |

Safety meetings. A well ordered flow of information is essential to a good safety program. Anthony Amiano Construction Company, through a program of safety meetings at all levels, intends to accomplish the goals of safety awareness, education, and participation.

Safety meeting outlines. The AACCI safety officer will maintain outlines where needed, serving various topics of importance to the safety of company employees. The outlines will be flexible. They will be intended to be adapted to the widest range of situations and groups. Supervisors can add the level of detail required to make the material completely relevant to the employees.

Safety meeting schedules. AACCI employees will be given safety briefings by their respective supervisors on a weekly basis. Safety briefings will be given immediately:
Upon initial job assignment or reassignment.
When operational changes to equipment or the job occur.
When a co-worker in their department is injured.
When manufacturers provide safety related information pertaining to defects, use, etceteras, for equipment used by AACCI.

Staff meetings. Safety will be included in the agenda of all staff meetings. The safety officer will keep all employees informed of safety performance developments in the area or accident prevention, and safety.

Supervisor meetings. Safety will be included in the agenda of all routine AACCI supervisor meetings. Supervisors may ask the safety officer to provide safety briefings as required.

Accident and incident reporting. Anthony Amiano Construction Company, Inc. Hazard Report will be used by all employees to report potential or know hazards. The following procedures apply:

Person reporting hazard:
Notify department supervisor of the hazard.
Accomplish lockout / tagout if required on the machine.
Fill out required sections of the hazard report.
Forward report immediately to the safety officer.

Supervisor:
Notify all affected workers of hazard.
Notify maintenance of hazard, if required.
Ensure hazard is properly marked and controlled.
Contact safety officer if needed.

Accident investigation. Accident investigation is primarily a fact-finding procedure; the facts revealed are used to prevent recurrences of similar accidents. The focus of accident investigation will be to prevent future accidents and injuries to increase the safety and health of all our employees.

Immediate concerns.
Ensure any injured person receives proper care.
Ensure co-workers and personnel working with similar equipment or in similar jobs are aware of the situation. This is to ensure that procedural problems or defects in certain models of equipment do not exist.
Start the investigation promptly.

Accident investigation form. A standardized investigation form which details specific AACCI requirements for investigation will be developed and used to gather data to determine causes and corrective actions.

Reviewers. All injury investigation reports will be reviewed by the AACCI safety officer.

General safety rules. The following safety rules are established by AACCI as general safety rules for all departments / sections.
Never operate any machine or equipment unless you are authorized and trained to do so.
Do not operate defective equipment. Do not use broken hand tools. Report them to your AACCI supervisor immediately.
Obtain full instructions for your supervisor before operating a machine with which you are familiar.
Never start on any hazardous job without being completely familiar with the safety techniques which apply to it. Check with your supervisor if in doubt.
Make sure all safety attachments are in place and properly adjusted before operating any machine.
Do not operate any machine or equipment at unsafe speeds. Shut off equipment which is not in use.
Wear all protective garments and equipment necessary to be safe on the job. Wear proper steel-toed shoes; sandals or other open-toed or thin soled shoes should not be worn.
Do not wear loose, flowing clothing or long hair while operating moving machinery.
Never repair or adjust any machine or equipment unless you are specifically authorized to do so by your foreman.
Never oil, clean, repair, or adjust any machine while it is in motion.
Never repair or adjust any electrically driven machine without opening and properly tagging the main switch.
Put tools and equipment away when they are not in use.

Do not lift items which are too bulky or too heavy to be handled by one person. Ask for assistance.
Keep all aisles, stairways, and exits clear of skids, boxes, air hoses, equipment, and spillage.
Do not place equipment and materials so as to block emergency exit routes, fire boxes, sprinkler shutoffs, machine or electrical control panels, or fire extinguishers.
Stack all materials neatly and make sure piles are stable.
Keep your work area, machinery and all company facilities which you use clean and neat.
Do not participate in horseplay, or tease or otherwise distract fellow workers. Do not run on company premises- always walk.
Power-truck operators must safeguard other workers at all time; workers must show courtesy to power-truck operators.
Filing cabinets, desks, storage cabinets, and other storage devices should have drawers closed when not in use to prevent tripping hazards.
Floor mounted extension cords should be placed so that they are flush to the ground at all times.
Coffee bar electrical outlets should be properly used. Never overload electrical outlets.
Burned out light bulbs should be replaced immediately.
Frayed or damaged electrical cords should be replaced.
Never take chances. If you're unsure, you're unsafe!
Ask for help, let good common sense by your guide.

Disciplinary actions for willful unsafe acts. Employee safety is paramount at Amiano Construction. The willful commitment of an unsafe act cannot be condoned. Employees who willfully jeopardize their own or coworkers safety will be disciplined. The type of discipline can range from a verbal warning to dismissal. The AACCI safety officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction.

Forms of discipline.
Verbal warning; The AACCI safety officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. A second verbal warning in the same shift will be grounds for release from the current work shift without pay. The immediate supervisor will be consulted in all cases and will make the determination for release.

Written warning. A written warning will be issued automatically for a second verbal warning for an unsafe act. The written warning will become part of the employees permanent personnel record.

Retraining. It must be considered that the possibility exists that lack of proper training may be a cause of the unsafe act. Supervisors will review the need for employee remedial training in their job skill code to enable them to better accomplish their jobs.

Dismissal hearing. The employee concerned will be notified of their rights in writing at least fourteen days in advance of the hearing. The AACCI employee will be told in writing of the cut-off date for submission of a rebuttal. The option of dismissal will be reviewed by AACCI's CEO at a dismissal hearing. The immediate supervisor will be consulted to determine if a lesser form of discipline is warranted. The employees' rebuttal (if provided) will be considered along with the severity of the act, the supervisors recommendation and any other supporting information provided at the time the hearing.

Unsafe act priority classification system. Unsafe acts will be rated according to the following rating system. Where it is unclear where an unsafe act should be rated the next higher priority classification will be assumed. While any unsafe act is serious, this classification system will be used to gage the severity of an unsafe act for use in determining the appropriate level of disciplinary action.

Priority One unsafe act. The most serious type of unsafe act or unsafe work practice that could cause loss of life, permanent disability, or the loss of a body part (amputation or crippling injury), or extensive loss of structure, equipment, or material.

Priority Two unsafe act. Unsafe act or work practice that could cause serious injury, industrial illness, or disruptive property damage.

Priority Three unsafe act. Unsafe act or work practice that might cause a recordable injury or industrial illness or non-disruptive property damage.

Priority Four unsafe act. Minor unsafe work practice infraction with little likelihood of injury or illness.

General Safety
Hand & Power Tools

Purpose
Most accidents involving hand tools and hand power tools are usually the result of misuse or the neglect of their condition. This section provides a general guideline to follow when evaluating the condition and proper use of tools.

Use of Tools

A. All conducting tools, hammers with metal handles, screwdrivers or knives with the metal continuing through to end or sides of handles, will not be used on or near energized electrical equipment.

B. The following will not be used when working on or near energized electrical circuits or equipment: metal measuring tapes, tapes having metal woven into the fabric, brass bound rules, metal scales and gauges, wire or metal bound hose.

C. Chisels, drills, punches, ground rods and pipes will be held with Authority provided holders or tongs (not with hands) while being struck with a sledge hammer by another employee.

D. Shims will never be used to make a wrench fit.

E. Wrenches with sprung or damaged jaws will be replaced.

F. Pipe will not be used to extend a wrench handle for added leverage unless the wrench was designed for such use.

G. All tools, regardless of ownership, will be approved type and shall be used only for the purpose for which they are designed.

H. Before making adjustments or changing air tools, unless equipped with quick-change connectors, the air will be shut off at the air supply valve ahead of the hose. The hose will be bled at the tool before breaking connection. All air hoses equipped with safety wire type connectors must be safety wired at all times.

I. Practical jokes with compressed air are strictly forbidden. Compressed air entering or blown against the body may result in serious injury or death.

J. Compressed air will be at a maximum of 30 psi and will not be used to blow dust or dirt out of the hair or applied to any part of the body.

K. When using a screwdriver or other tool, employees will place themselves in such a position that they will avoid injury if the tool should slip.

L. Only authorized and trained AACCI employees will be permitted to operate power equipment.

Care of Tools

A. All tools, regardless of ownership, will be maintained in first class condition and be subject to inspection at any time. A supervisor has the responsibility to condemn tools.

B. Tools with sharp edges will be stored and handled so that they will not be damaged or cause injury or damage. They will not be carried in clothing pockets.

C. As shock tools, such as chisels, punches, drills, etceteras, become mushroomed or cracked, they will be dressed, repaired or replaced before further use.

D. Wooden handles that are loose, cracked or splintered will be dressed, repaired or replaced before further use.

E. All cutting tools, such as saws, wood chisels, draw-knives, axes, etceteras, will be kept in guards unless special compartments are provided for their storage.

F. All spark proof tools will be properly marked and kept separate from the regular tools.

G. Only spark proof hand tools and power tools approved for use in a hazardous location will be used where excessive gases may be or known to be present.

Extension cord inspection procedures

The following inspections must be made on extension cords that are issued on a regular basis in an operation and maintenance capacity:

A. Before and after the use of each extension cord, the following visual inspections must be performed:

1. Jacket / insulation- Abrasions, cuts, cracks and fraying.
2. Plug adapters (male and female)- Corrosion to the prongs and screws; all prongs are

straight and in proper position; all adapters secured tightly to the cable.

B. The following inspections must be performed quarterly:

1. All extension cords will be removed from service and the wiring tested with a circuit tester for the following problems:

a. Open ground
b. Reverse polarity
c. Open hot wire
d. Open neutral wire
e. Hot and ground wire reversed
f. Hot on neutral wire with hot wire open

2. Any problems found when performing the required inspections must be acted upon immediately by :

a. Labeling the cord with red marker (tag)
b. Removing the cord from service, and / or
c. Initiating repairs or replacement

General

A. All files, rasps, and other hand tools which have a sharp tong will not be used without approved handles.
B. Tool, except those normally carried on belts, that must be raised or lowered from one elevation to another, will be placed in AACCI provided tool buckets or firmly attached to handlines.
C. Tools will not be thrown from place to place nor from person to person under any circumstances.
D. Tools will not be left lying around where they may cause tripping or stumbling.
E. Tools shall never be placed unsecured on overhead areas.
F. When working on or above open grating, a canvas or other adequate covering will be used to cover the grating in order to prevent tools or parts from dropping to a lower level, or the danger area will be barricaded or guarded by an employee.
G. Electric tools (except those with self-contained power or double insulated), such as electrical drills, saws, etceteras, will have their frames effectively grounded at all times while connected to a source of power.
H. The insulation on hand tools will not be depended upon to protect users from shock.
I. Employees operating or working near rotating machine tool equipment will not wear rings, gloves or loose clothing.
J. All AACCI employees will operate equipment as per the manufacturer's instructions and observe all safety and operating guidelines as prescribed by the manufacturer.

Motor Vehicles and Other Mobile Equipment

Many employees are involved in activities that require they operate AACCI owned vehicles. Whenever an AACCI employee is using a company owned vehicle, they will utilize utmost care and adhere to the following rules concerning motor vehicles.

A. Only those AACCI employees specifically authorized and who possess valid licenses or permits will operate AACCI motor vehicles or personally owned vehicles on company business.
B. Drivers will know and obey all state and local motor vehicle laws.
C. A driver will not permit unauthorized persons to drive, operate or ride in or on an AACCI vehicle, such as a hitchhiker.
D. The driver of the vehicle and all vehicle passengers will use seat belts.
E. Employees will not permit anyone to ride on the running boards, fenders or any part of any motorized equipment not designed for occupancy. All passengers will ride in the seats or inside the body walls. Passengers will not stand in moving vehicles except where necessary and handholds are provided.
F. Employees will not ride on loose material or equipment carried on trucks.
G. Employees will not ride on trailers unless designed for human occupancy.
H. Employees will not jump on or off vehicles in motion.
I. Drivers of cars, trucks, forklift equipment, etceteras, will exercise maximum care to keep from running over electric extension cords, air hoses, pipe lines, etceteras.
J. No one will ride as a passenger on tractors, forklifts, etceteras, at any time.
K. Operators of AACCI vehicles will check for presence of required safety equipment before starting out.
L. Reckless or dangerous operation of a motor vehicle on AACCI property or in the course of AACCI business will subject an employee to disciplinary action. The posted speed limit will be observed.
M. Proof of insurance card will be maintained in all AACCI vehicles.

Inspection

A. Brakes will be tested by the driver before moving the vehicle each day. The driver will report any defects which may have developed during the day. If brakes are not working safely, the driver will inform their supervisor who will have them adjusted or repaired before the vehicle is put into operation.

B. Lights and other signaling devices will be inspected before operation of vehicle each day. If found defective, they will be repaired before vehicle is placed in operation. No motor vehicle will be operated at night unless equipped with adequately working headlights, taillights and other necessary safety devices as required by law.

Operation

A. The operator of a motor vehicle will clearly signal his intention of turning, passing or stopping.
B. Drivers following other vehicles will stay a distance behind so that they can stop in the clear distance ahead.
C. Drivers will keep a sharp lookout for children, especially in school zones or where they are playing, and be prepared for an immediate stop.
D. Trucks or trailers stopped on any public roadway will be protected by cones, proper warning lights or reflectors in accordance with legal requirements.
E. Vehicles will not be parked on bridges or culverts except when necessary for work.
F. Before backing a vehicle the driver will determine that the space needed is clear, and then will back slowly, keeping a constant lookout during the entire time they are backing. If another employee is available, this employee will be stationed so as to warn the driver of approaching danger and assist the driver in maneuvering the vehicle.
G. When entering or leaving any building or enclosure, or to or from an alley or street where vision is obstructed, a complete stop will be made and the driver will proceed with caution.
H. All ignition systems will be turned off and no smoking permitted while refueling.
I. When refueling from above ground fuel tanks, ground wires and bonding straps will be used.
J. When stopped on an incline, drivers will be certain that the brakes are adequately applied, the vehicle is in gear where possible and the wheels are at an angle against the curb. This applies whether the vehicle is facing up or down grade.
K. Moving and parking violations of federal, state and local traffic laws and regulations are the driver's personal responsibility.

Loading & Hauling

A. Materials and equipment will be loaded so they will not cause a hazard by shifting. Heavy equipment and materials will be securely fastened.
B. Red flags during the day and red lights at night will be attached to equipment or material that extends more than four feet beyond the back of the vehicle.
C. Tools, materials or equipment will not be permitted to extend beyond the permanent fixtures provided on the sides of the truck. Any material, which might blow out, such as sand, etceteras will be covered per state laws.
D. All vehicles will comply with all applicable regulations / laws.

Accidents

A. Drivers of AACCI vehicles will always stop and give their names and addresses, and AACCI's name and address when they are involved in an accident. They will also secure the names, addresses, license numbers of others involved in the accident, and the names and addresses of all available witnesses or others who may have knowledge of the accident.
B. Drivers or other employees will not determine or admit liability of AACCI when an accident occurs.
C. All automobile accidents will be reported immediately in accordance with AACCI's regulations. Employees will consult with their supervisors for specific regulations.

Other Mobile Equipment

The safety precautions in this section are general guidelines. As with any piece of equipment, always consult the equipment manufacturer's O&M manual for special precautions. Never operate any piece of equipment that you have not been authorized and trained to use. Hearing and eye protective devices will be worn when needed.

Tractors

A. All tractors must be equipped with rollover protection, seat belts, and rear safety screen.
B. Operators will use good judgment at all times while using this equipment and will fully understand its capabilities and limitations. This includes making sure all observers are kept at a safe working distance.
C. Operators will have good safe footing and handholds when getting on and off equipment.
D. Upon completion of the work shift, the bucket and / or blade will be rested on the ground and brakes or clutches set, as recommended by the manufacturer.
E. When working on land with brush cover, the area will be walked over before working and obstacles will be marked and noted.

Forklift Equipment (Truck)

When operating forklift equipment, AACCI employees will:

A. Face in the direction of travel and keep a sharp lookout for all obstacles. For better vision when carrying bulky loads, truck will be backed in the direction of travel.
B. Stop at all blind intersections and corners. Sudden stops that may injure operator, spill the load or damage the truck will be avoided.
C. Descend ramps slowly, and when carrying a load, truck will be backed down to prevent a load shift.

D. Place forks on ground when truck is parked. Operator will always drive with empty forks in the lowest travel position. The operator will not attempt to move any obstacles or objects by ramming it with the forks.
E. Inspect all plates used for access into trucks to make certain that they are adequate to support the weight of the truck and its load, and that they are secured before driving on them.
F. Keep arms and legs within running lines of the truck. Passengers shall not be allowed to ride on forklifts.

Power mower equipment (includes weed-eaters, brush hogs, riding mowers and push mowers)
When operating power mower equipment, the employee should take the following precautions:

A. Remove wire, stones, branches and other foreign objects from the area to be mowed. Rocks and tree roots will be avoided.
B. Keep hands and feet from under the machine and out of discharge chute while engine is running.
C. Stop engine (or motor) and disconnect spark plug wire, wires or lockout ignition system before adjusting, repairing or replacing cutting blade or blades. If the equipment being used is of the rotary type, special attention will be given to the condition of the blade mounting bolt or nut. Mowers must be right side up and completely on the ground when started.
D. When mowing a terrace, slope or incline, mow lengthwise (across the face of the slope, etceteras) instead of up and down.
E. Use extreme caution when pulling hand mower toward feet.
F. Employees operating rotary mowers will ensure that property, other personnel and visitors are kept at a safe distance.
G. Before refueling, mowers should have the engine off, and the engine should be allowed to cool a reasonable length of time.
H. All power-driven chains, belts and gears will be so positioned or guarded to prevent the operator from contact during starting, mounting and normal operation.
I. Appropriate clothing will be worn when operating power mower equipment.
J. Lawn mowers will not be left running unattended.
K. All standard lawn mower safety equipment will not be removed or disconnected by employees.

Rodding, Truck, Trailers, & High Velocity Jet Cleaner

A. Units will not be operated alone. A minimum of two AACCI employees are needed during operations.

B. As with any piece of equipment, operators will use sound judgment when operating these units.
C. Operators will never aim, direct or point the hose and / or nozzle at anyone.
D. Operators will always proceed slowly and cautiously to ensure safety and a more through cleaning job.
E. When retracting the hose from manholes, siphon boxes, junction boxes, etceteras, always use the "roller guides" to prevent possible injury to employee or damage to the hose.
F. Never operate this equipment with a damaged hose. Report any damage to the hose immediately to the AACCI supervisor.
G. Gloves will be worn and personal hygiene followed.
H. All equipment will be secured before being moved.

Vacuum Truck

A. Set the emergency parking brake.
B. Be sure pressure on vacuum is relieved from tank before disconnecting.
C. Gloves will be worn and personal hygiene followed.
D. All equipment will be secured before being moved.

Boom Truck

A. When traveling, the boom will always be fully retracted, centered, and secured in its saddle. The outriggers will also be fully retracted. If a load prevents the boom from resting in its saddle, it should be adequately tied down prior to transporting.
B. Do not travel with a loose loadline cable.
C. On uneven, soft or sloping terrain, position the crane to allow maximum stability.
D. When operating on soft terrain, put planks or additional pads under the outrigger feet.
E. Extreme caution will be exercised when operating in the vicinity of overhead electrical cables. No work will be performed closer than the recommended safe distance prescribed by the power company.
F. Before lifting, consult the capacity charts to determine how much can be lifted with the length of boom used and radius required.
G. When using a multiple part line, consult the capacity charts to ensure proper loading.
H. When extending the boom with a suspended load, the winch control must be used to pay out at the same time. Do not extend the horizontal reach of the boom beyond the radius listed for the capacity.
I. When moving positioning the boom, the operator will always look ahead in the direction the boom is moving.

J. When using the unit with a work basket attached to the end of the boom, employees will not transfer from the basket to a pole.
K. Do not attempt to stand on top of the basket or make use of make shift arrangements for working outside it.
L. In the event of a break in a hydraulic pressure line, do not attempt to stop the leak by the use of hands, feet or any part of the body.

Miscellaneous Portable Fuel Powered Equipment

A. Avoid leaving this type of equipment running without frequent inspections.
B. Always place this type of equipment on level ground when in use.
C. Avoid filling this type of equipment with fuel while it is running.
D. Avoid placing this type of equipment where the exhaust fumes can present a hazard to employees or other individuals in the area.

# Operating Project

## General Facilities

There are many areas in a project that could present safety hazards. The following are some of the more recognizable areas where employees will exercise caution when working around or using to prevent personal injury.

A. All control, annunciator and indicating light circuits on the back of control panels will be considered as energized parts. Caution will be exercised when disconnecting, blowing down or draining gauge lines to prevent contact with exposed electrical equipment.
B. Barriers will be placed in a manner that will prevent anyone from falling into temporary openings when manhole covers, floor plates, gratings, etceteras, are removed.
C. Barriers will be used to guard areas where there is danger from falling materials.
D. All facilities will be equipped with adequate lighting.
E. All safety equipment will be inspected at least annually for condition, working order and correct quantities.
F. Plant piping will be clearly labeled and / or color-coded for easy identification.
G. Anthony Amiano Construction's safety program manual guidelines will be effect at all times regarding signs, tours and visitors at the project.

Housekeeping

Employing good housekeeping practices is important on each and every job. It is well recognized that a neat, orderly job site, not only reduces incident / accident risk, but also contributes to a more satisfactory work environment. Additionally:

A. Trash and loose objects will be picked up from floors, stairways and work platforms.
B. Projecting nails (if any) will be removed or bent over.
C. Walkways will be kept free of grease, sludge, oil, algae, moss, etceteras.
D. Walkways will be kept free of ice. If this is not possible, they will be salted, sanded, or barricaded.
E. Splash guards and drip pans will be used whenever possible to keep oil and grease from machinery and pumps off the floor.

Freight Elevators

A. Elevator interlocks will never be made inoperative.
B. Elevators will never be loaded beyond their rated capacity. If there is doubt about the weight of the object to be moved, it should be weighed.
C. Heavy objects will be placed as close as possible to the center of the car so the car and load will be in balance.
D. Objects that could tip over while the elevator is in motion will be properly secured.
E. Any defects in the elevator will be reported to a supervisor.

Conveyors

A. Employees will stay clear of conveyors during normal operation because they may start at any time.
B. Employees will not ride conveyor belts.
C. Employees will not attempt to clear a blocked conveyor or loosen any material therein (except from established positions outside the equipment) without first shutting off the power following the appropriate Control of Hazardous Energy Sources procedures (tagging the control with a caution tag).
D. Employees will use caution when cleaning around conveyor rollers while belt is in operation.
E. Spilled sludge cake will be cleaned up in a safe manner.

**First Aid**

**ONLY EMPLOYEES PROPERLY TRAINED IN ADMINISTERING FIRST AID SHOULD PROVIDE FIRST AID EXCEPT IN AN EFFORT TO SAVE A LIFE WHILE HELP IS BEING SUMMONED.**

## Excavation

Employees performing excavation activities or working within excavations are expected to follow the rules provided below for the protection of themselves, other employees and the general public. Since excavations may involve a wide range of situations, employees are encouraged to use their best judgment as to the potential hazards and utilize the adequate precautions necessary for the work to be performed. For excavations over five feet in depth or with unstable soil conditions, see Trench Excavation Safety Procedures.

**Excavation by Machine or Hand**

A. Other companies with underground utilities in the area will be notified before excavating is begun.
B. All underground cables and pipelines will be spotted and staked or marked, when possible. When digging near such facilities, hand excavation will be used whenever possible to avoid damaging other cables and pipe lines.
C. The machine will never be oiled, greased or fueled while the motor is running. The fuel tank will be filled from AACCI provided safety type cans or pumps.
D. Employees and bystanders will be kept at a safe distance from the machine while it is in operation. The operator will warn other employees and bystanders to keep a safe distance.
E. An employee will not attempt to clear the buckets or discharge chute by hand while the machine is in operation.
F. When loader bucket is being loaded by hand, the machine operator will keep hands and feet free of all controls except the brakes.
G. Machines will not be used on slopes or inclines without first preparing the right-of-way to prevent overturning.
H. Employees, other than the operator, will not stand with hands or feet resting on a machine while it is running.
I. Machines that are parked or operating on streets or highways will be protected by appropriate warning devices.
J. When it is necessary to leave excavating equipment unattended, the blade, bucket or scoop will be lowered to the ground and the ignition system locked.
K. Ground openings, such as trenches and shafts, and obstructions, such as heavy equipment, will be protected by suitable barricades or covers.
L. Equipment will be shut down and de-energized before inspection or maintenance work is performed on it.
M. Employees will start machines from the driver's seat only.
N. All necessary precautions will be taken to prevent equipment from causing a cave-in of excavations. No unnecessary equipment will be operated in close proximity to the edge of the excavation.

O. All material removed from excavations will be piled at least twenty-four inches or greater from the edge of the excavation in the event that the slopes are unstable.
P. Employees will not work under materials that are suspended or supported on skids.
Q. Employees exposed to vehicular traffic will refer to Underground Systems.
R. All connections to air tools will be made secure before turning on air pressure. Air hoses equipped with safety wire connectors must be safety wired at all times.
S. Compressed air at the tool will not be turned on until the tool is under the control of the operator.
T. Pressure on air tools will be released before the equipment is left unattended.

**Trench Excavating Safety Procedures**

Unstable soil conditions are a hazard to those working within or in the vicinity of an open trench. Unstable trenches may slough, cave-in and move jeopardizing worker safety. AACCI employees are to follow the procedures listed below for the protection of themselves and others. Employees are to be aware of their safety responsibilities and follow the safety directions from on-site AACCI safety officer. The procedures apply to any trench which is over five feet in depth or trenches that are less than five feet in depth located in areas where unstable soil conditions are present.

Definition of Terms

a. benching (benching system): A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.
b. cave-in: The separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury or otherwise injure and immobilize a person.
c. competent person: One who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to prompt corrective measures to eliminate hazardous conditions. This person will be adequately trained, with a minimum of eight hours training, have passed a trench safety examination, and have sufficient experience to act as AACCI's designated on-site safety person. The competent person's training and experience will be reviewed by AACCI's safety officer.
d. dewatering system: A mechanical system that artificially lowers the static groundwater to a level that prevents groundwater seepage into the excavation. These include well-points, sumps, pumping wells or cut-off walls.
e. excavation: Any man-made cut, cavity, trench, or depression in an earth surface formed as a result of earth removal.

f. faces or sides: The vertical or inclined earth surfaces formed as a result of excavation work.

g. failure: The breakage, displacement or permanent deformation of a structural member of connection so as to reduce its structural integrity and its support capabilities.

h. groundwater: Water that is present in the soil in sufficient quantities that it will flow and collect at a point. This includes a natural aquifer water level or perched groundwater on top of an impervious layer of earth.

i. hazardous atmosphere: An atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic or otherwise harmful, may cause death, illness or injury.

j. kickout: The accidental release or failure of a cross brace.

k. protective system: A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems and other systems that provide the necessary protection.

l. running soil: Soils that exhibit fluid behavior generally brought about by excess moisture, imbalanced hydrostatic (water conditions) or vibration.

m. shield (shield system): A structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either premanufactured or job-built, but must be certified by a Professional Engineer. Shields used in trenches are usually referred to as "trench boxes" or "trench shields".

n. shoring (shoring systems): A structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins, but must be certified by a Professional Engineer.

o. sloping (sloping system): A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure and application of surcharge loads.

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

q. trench box: See "shield"

r. trench shield: See "shield"

s. uprights: The vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called "sheeting".

t. wales: Horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the uprights of the shoring system or earth.

## Trench Safety Procedures

These procedures cover excavation and supporting systems for trenches to protect the safety of workers. These procedures apply to any trench which is over five feet in depth or trenches that are less than five feet in depth located in areas where unstable soil conditions are present. These procedures also apply to shored trenches less than fifteen feet in width.

A. All trenches over five feet deep will be sloped, shored, or shielded. The competent person will determine the trench protection. Trenches less than five feet in depth will also be effectively protected when examination of the ground indicates hazardous ground movement may be expected. Sides of trenches in unstable or soft material, five feet or more in depth, will be shored, sheeted, braced, sloped or otherwise supported by means of sufficient strength to protect the employees working within them. Refer to Excavation Safety.

B. Shoring and bracing precautions will be taken to prevent slides or cave-ins when excavations or trenches are made in locations adjacent to backfilled excavations or where excavations are subjected to vibrations from railroad or highway traffic, the operation of machinery, or any other source.

C. Backfilling and removal of trench supports will progress together from the bottom of the trench. Jacks or braces will be released slowly. In unstable soil, ropes will be used to pull out the jacks or braces from above, after employees have cleared the trench.

D. The designated AACCI person must perform daily inspections of the trench faces and bottom and / or any structural systems utilized for supporting the trench walls prior to personnel entering into the excavation. The designated AACCI safety person will record and report these daily inspections.

E. No employee will enter or work along the edges of a trench until trench protection systems are in place and deemed acceptable by AACCI safety person.

F. Employees will exit the trench and notify the AACCI safety person if any change in the original condition or atmosphere have occurred.

G. When employees are in trenches four feet deep or more, an adequate means of exit, such as a ladder or steps, will be provided and located so as to require no more than twenty-five feet of lateral travel.

H. Surface drainage will be controlled to prevent surface flow from entering the trench.

I. If work is interrupted six or more hours, the AACCI safety person will examine the trench prior to personnel reentering the trench.

J. Equipment will not be stored or operated along the trench wall, which might cause failure of the trench side(s).

K. Underground utilities encountered will be adequately supported so not to create excessive loading on the trench sides or trench protection system.

## Role of The Competent Person

The competent person will perform the following duties in regards to inspecting trenches:

A. Collect all pertinent information regarding soil conditions that may be encountered, i.e., plans and locations of underground utilities, prior soil reports and / or testing, records of prior excavation in the area,etceteras.
B. Perform field testing and classification of soil type and condition.
C. Determine applicable trench safety procedures.
D. Make safety decisions regarding personal safety and control of when a trench may be entered.
E. Be on-site and / or available during excavation and times that personnel are within a trench.
F. Complete and maintain at a central location the "Trench Safety Daily Field Report", which includes the daily inspection report.
G. Hold a preconstruction meeting to discuss various aspects of the project in terms of trench safety with applicable personnel.

## Certification Procedures for Trench Safety Competent Person

An employee may become certified as a competent person upon review and approval by the AACCI Safety Officer.

A. Attend a training class which is eight hours or greater in length. The class must be previously approved by AACCI.
B. Take a trench safety competent person examination. A minimum score of seventy percent must be obtained to demonstrate the applicant's knowledge of trench safety procedures.

# Excavation Safety

The purpose of this section is to establish safety and health guidelines for personnel involved in excavation projects.

A. Employees shall not work in or adjacent to an excavation site until that work has been approved by the safety officer of AACCI.

B. Employees should determine whether underground installations, i.e., sewer, electrical lines, etceteras, will be encountered prior to opening an excavation.

C. The walls of all excavations five feet or more in depth, which employees will enter, shall be guarded by a shoring system, sloping off the ground, or other equivalent means.

D. A shoring system will consist of wood timbers or equivalent with sheathing as needed. The shoring should be properly designed and installed to sustain all existing and expected loads. Wood sheathing or uprights shall not be less than two inches in nominal thickness, except that three-quarter inch thick plywood panels may be used in addition to the two inch material as an aid in holding loose material. In lieu of the above shoring system, the use of properly maintained hydraulic metal jack shoring units with equivalent strength is acceptable.

E. The sides of walls of an excavation may be sloped in lieu of a shoring system. The sloping shall be maintained at a one horizontal to one vertical ratio.

F. Excavation work will at all times be under the supervision of someone qualified to modify the shoring system or work methods. This person shall examine the excavation site and improve the shoring or sloping as necessary to ensure the protection of workmen from moving ground.

G. Excavation material shall be prevented from falling back into the excavation. In no case shall the excavation material be placed closer than two feet from the edge of the excavation.

H. Safe means shall be provided for workers to enter and leave the excavation area. A standard stairway, ladder, or ramp securely fastened in place is suitable for this purpose.

I. No excavation shall take place below the level of the base of an adjacent foundation, retaining wall, or other structure until a supervisor has determined that such excavation will no way create a hazard or until adequate safety measures have been taken. If sidewalks are to be undermined, they shall be supported to carry a minimum live load of one hundred twenty-five pounds per square foot. Lighted barrier physical protection shall be provided at all excavations. All wells, pits, shafts, etceteras, shall be barricaded or covered upon completion of exploration and similar operations. Temporary walls, pits, shafts, etceteras, shall be backfilled.

# AERIAL LIFT SAFETY

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Appendix Operator Warnings and Instructions

## 1.0 Introduction

Various aerial lifts are used by Anthony Amiano Construction Company, Inc., such as self-propelled elevating work platforms (e.g., scissor lifts), manually-propelled elevating aerial lifts (e.g., uprights), and vehicle-mounted elevating and rotating aerial devices and work platforms (e.g., bucket trucks). Many different codes and standards govern the use of this equipment at AACCI to ensure the safety of operators and other workers. This Environment, Safety and Health (ES&H) Manual document is based on codes and standards adopted in the Work Smart Standard (WSSs) for aerial lifts, along with manufacturers' recommendations and other standards that apply for AACCI activities.

This document contains requirements for aerial lifts that lift workers and tools to elevated work sites. It does not contain requirements for the use of fire-fighting equipment, such as those covered in the American National Standards Institute/ Automotive Fire Apparatus (ANSI/NFPA) 1901-1996 or personal platforms attached to a crane boom or suspended by hooks.

All workers must comply with the requirements set forth in this document. Any deviation from these requirements will require approval by the appropriate management chain.

## 2.0 Hazards

The following conditions occurring during aerial lift operations can result in property damage, personal injury, or death:

- A fall from an elevated level.
- Falling objects or items falling out of lifts.
- Exceeding the load capacity of the lift, which may result in tip-over or structural failure.
- Electrical hazards (e.g., overhead power lines, extension cords, bridge crane bus bars).
- Entanglement hazards (situations that may cause the lift to be caught on or snagged against other objects).
- Contact with stationary objects (e.g., walls, buildings, other vehicles, ceilings, floors, piping) that may result in an entrapment or crushing hazard.

- Uneven terrain that may cause the vehicle to tip, topple over or eject the operator. Some examples may include slopes, holes, drop-offs, bumps, debris, and utility vault covers.

- High winds or inclement weather such as rain, hail, snow, or lightning.

- Operation of an internal combustion engine vehicle indoors, which can cause asphyxiation or toxic exhaust-gas exposure.

- Unapproved use of equipment in unusual environments or the use of inadequate controls for operations or maintenance activities, which can cause a fire or explosion.

## 3.0 Controls

### 3.1 General Discussion

The following sections provide requirements and best management practices for the various types of aerial lifts used by AACCI. When in doubt, default to the manufacturer's instructions for the particular make and model of the lift for more detailed guidance.

The information in this document shall be supplemented by good judgment, safety control, and caution in evaluating each situation. Since the operator is in direct control of the aerial lift, conformance with good safety practices is the responsibility of the operator. The operator shall make decisions on the use and operation of the aerial lift with due consideration for the fact that his or her own safety as well as the safety of others is dependent on those decisions.

All operators shall be trained before operating aerial lifts.

Operators are qualified to use lifts to the rated capacity of the equipment for which they are trained and evaluated. All operations shall be done safely and in accordance with accepted work practices. Directorates or facility points of contact may impose additional restrictions on their operations as necessary.

### 3.2 Maintenance

Frequent, annual and /or periodic (depending on activity, severity of service and environment) maintenance inspections shall be performed by the owner of the lift on a timely basis by qualified mechanics. Inspection times listed in the maintenance manuals shall be tested, evaluated and if applicable, corrected by qualified personnel before the unit is returned to service. Lifts shall not be operated if they are out of compliance.

Replacement parts shall be identical or equivalent to the original parts, or provide a greater level of safety. Markings on the aerial lift shall not be removed, defaced or altered. Missing or illegible markings shall be replaced promptly. Altering or disabling of safety devices, such as warning beepers, guards or interlocks is prohibited, and modifications shall be done only with the permission of the manufacturer.

### 3.3 Operations

Operators shall be trained before using any aerial lift. The training shall include familiarization with the specific group of lifts to be used and alerting the operators to their responsibilities with respect to the lifts. When an operator is directed to operate an unfamiliar aerial lift, the operator shall receive instructions regarding the location of the manufacturers' manuals, the purpose and function of all controls, and the safety devices and operating characteristics specific to the group of aerial lifts prior to operating. Operators shall also be afforded the opportunity to familiarize themselves with the operation of the lifts.

#### 3.3.1 Before Operation

Before operation, the operator shall:

- Practice with the aerial lift (if unfamiliar with the lift) until comfortable / proficient with its operation.
- Read and understand the manufacturers' manuals.
- Understand all labels, warnings, and instructions on the lift.
- Ensure that all occupants of the platform wear appropriate personal safety equipment for the conditions under which the platform will be operated, per the applicable Integration Work Sheet / Safety Plan (IWS/SP) (e.g., fall protection, hard hats).

- Have been instructed by a qualified person in the intended purpose and function of each of the controls.

- Notify and communicate with the Facility Point of Contact (FPOC) at the site where the lift will be used.

### 3.3.2 Workplace Inspections

Operators will inspect the workplace to mitigate hazards before and during aerial lift use. Areas will be inspected for hazards such as:

- Drop-offs, holes, or untamped earthfills.

- Slope(s), ditches, bumps, and floor obstructions.

- Debris.

- Overhead obstructions and high voltage hazards.

- Other hazardous locations and atmospheres.

- Inadequate support (The working surface that the lift is sitting on cannot support the weight of the machine, men, etc. for the operation).

- Wind and weather conditions.

- Presence of unauthorized persons or other hazardous conditions.

The ES&H Team member shall, with the operator's supervisor, determine if there are any unusual hazards in areas where lifts will be used.

### 3.3.3 Prestart Inspection

The aerial lit shall be inspected for defects prior to each shift's operation. The prestart inspection shall be performed and documented by the operator on each shift and will include items in accordance with manufacturer's recommendations for each specific aerial lift, such as:

- Operating and emergency controls.

- Safety devices.

- Personal protective devices.
- Hydraulic, air pneumatic, fuel and electrical systems for wear, leakage, excessive dirt, moisture or any other condition which may impair the use of these systems.
- Fiberglass and other insulating components for visible damage or contamination.
- Missing or illegible placards, warnings, operational, instructional, and control markings.
- Visual inspection of all mechanical fastenings.
- Cables and wiring harnesses.
- Loose or missing parts.
- Wheels or tires.
- Operating manual(s), and their placement in weatherproof containers on the lift, or in the cab of the truck.
- Outriggers, stabilizers, and other structures.
- Guardrail systems.
- Other items specified by the manufacturer.

The aerial lift shall not be operated if the prestart inspection indicates that repair is necessary.

**3.3.4 Operation**

The lower controls of aerial lifts shall not be used for continuous operation with personnel in the platform.

Aerial lifts are not normally insulated for use near electrically energized circuits such as power lines or exposed bus bars. In general, scissor lifts are not electrically insulated and will not provide protection from contact with or proximity to electrical current. Any aerial lift intended for use around electrically energized circuits shall meet the electrical requirements of American National Safety Institute / Scaffold Industry Association.

# 4.0 Responsibilities

## 4.1 Operator

Before operation, the operator shall:

- Ensure that their training is current.
- Read and understand the manufacturers' manuals, per Section 3.3.1.
- Understand all labels, warnings and instructions on the lift, per Section 3.3.1.
- Ensure all occupants of the platform wear appropriate personal safety equipment for the conditions under which the platform will be operated (e.g., fall protection, hard hats), per Section 3.3.1.
- Have been instructed by a qualified person in the intended purpose and function of each of the controls, per Section 3.3.1.
- Notify and communicate with the FPOC at the site where the lift will be used, per Section 3.3.1.
- Ensure that manufacturers' machine manuals, such as operations manuals, the maintenance manuals for each make and model of lift owned, and the manual of responsibilities (if it is a scissor lift) are in the weatherproof containers located on the lifts or in the mobile unit, per Section 3.3.3.
- Be retrained, if necessary, based on the owner's or user's observation and evaluation of the operator or every three years for aerial man-lifts or five years for scissor lifts or bucket trucks, whichever comes first.
- Perform written prestart inspections before use of the lift each day or shift, and perform a visual and functional test, per Section 3.3.3
- Conduct workplace inspections before and during aerial lift use. See Section 3.3.2 for a list of inspection items.
- Observe operator warnings and instructions to be used before and during each movement of the platform. See Appendix for a list of these warnings and instructions.

- Shut down lift operations in case of any suspected malfunction, or if a hazard or potentially unsafe condition exists. Notify the work supervisor about any problems or malfunctions that affect the safety of operations. These problems or malfunctions shall be repaired prior to the use of the lift.

**4.2 Owner / User**

The Owner / User shall ensure that:

- Aerial lift safety programs are developed, documented and utilized as required.

- Manufacturers' manuals, such as the manual of responsibilities, operations, and maintenance manuals, are available and stored in the waterproof containers on the lifts or in the mobile units, per Section 3.3.3.

- Frequent, annual and / or periodic maintenance inspections shall be performed on a timely basis (taking into account the severity of use and environment) by qualified mechanics trained for this purpose.

- Inspection items listed in the maintenance manuals shall be tested, evaluated and, if applicable, corrected by qualified personnel before the unit is returned to service.

- There is distribution of and compliance with all safety bulletins received from manufacturers.

- Assistance shall be rendered to operators who have questions concerning lifts.

- Modifications of the aerial lift equipment shall be made only by the manufacturer or with their prior written permission.

- If the location of the intended operation has the hazards listed in Section 3.3.2, the ES&H Team shall be consulted and safety measures discussed with, selected, and passed on to the operator before use of the lift.

- That operators comply with all requirements as specified in operator responsibilities in Section 4.1.

**4.3 Work Supervisors**

Work supervisors (e.g., Direct Work Supervisor, Job Site Supervisor) shall:

- Ensure that the aerial lift is used only for intended applications as defined in the operating manual, and that recognized safety practices are followed, per Sections 3.3 to 3.3.4.
- Select operators based on their experience and physical qualifications, per Section 3.3 to 3.3.4.
- Ensure that operators' training is current.
- Monitor the performance of lift operators to ensure that they comply with safety rules.
- Ensure that unauthorized persons do not operate the lifts.
- Monitor daily written prestart inspections.
- Ensure that lifts are equipped with required safety equipment (e.g., overrides, back-up beepers, anchorage points for personal fall arrest systems), per Section 3.3.3.
- Ensure that lifts are maintained and that qualified personnel perform frequent, annual, and periodic inspections, per Section 3.2.
- Ensure that lifts are not operated if they are out of compliance with their applicable maintenance schedules, per Section 3.2.

# Appendix

## Operator Warnings and Instructions

The aerial lift is used only for intended applications as defined in the equipment's operating manual. The following recognized safety practices shall be used:

1. Operators shall not use the lift in an unauthorized manner.

2. All platform occupants shall use fall protection (e.g., full body harness, shock-absorbing lanyard) connected to the anchorage point(s) provided at the platform position.

3. A hard hat shall be worn at all times when operating aerial lifts.

4. Other personal protective equipment, (e.g., eye, foot, hand, clothing) shall be worn as required.

5. The slope and grade for which the platform is rated shall not be exceeded. Aerial lifts may be equipped with tilt or other motion / capacity warning alarms. These alarms shall be operational. The limit switch shall not be altered or disabled. Operators shall not depend upon the tilt alarm as a level indicator.

6. The deployment of stability enhancing means, such as outriggers, outrigger pads, stabilizers or extendible axles, shall be utilized.

7. The guardrail system shall be used per manufacturer's specifications. Entry gates or chains shall be closed before operating the lift.

8. Operators shall not overload an aerial lift. Occupants and equipment shall not exceed the maximum platform capacity (or the maximum capacity of the platform extension when so equipped).
9. Safe distances, including overhead clearance, shall be maintained between the operator, the machine and other objects. Electrocution hazards shall be avoided. Operators shall maintain safe distances from electrical power lines, conductors or bus bars. They shall allow for boom or platform movement or electrical line sway or sag. Operators shall follow minimum safe approach distances (MSAD).

10. Operators shall not drive the mobile chassis close to an obstruction. The operator shall place his / her machine, then use the raise, swing, and boom functions to get in

close. Operators shall use the slowest speed for such movements to avoid "bounce" of the platform.

11. Only Category "A" aerial lifts shall be used for bare-hand electrical work. Check manufacturer's instructions for testing, locking, tagging, and grounding.

12. Workers on the ground associated with the aerial lift operation shall wear appropriate head protection.

13. Operators shall not sit, stand, or climb on the platform guardrails or edge of the bucket. They shall maintain a firm footing on the platform floor at all times.

14. The use of railings, planks, ladders, scaffolds or any other device in or on the work platform for achieving additional working height or reach are prohibited.

15. Areas around aerial lift operations shall be barricaded to prevent injury to pedestrians and other workers. When other moving equipment is present, precautions, such as warnings, barriers, or flashing lights shall be used as appropriate.

16. Observations shall be conducted on an ongoing basis to detect any deficiencies in equipment or method of use. Operator shall cease operation of the lift if any suspected malfunction occurs. Problems or malfunctions shall be reported to the supervisor as soon as possible. Any problems or malfunctions shall be repaired before using the platform.

17. Potentially hazardous locations shall be reported to the supervisor as soon as possible.

18. Aerial lifts with internal combustion engines operating inside a building, or other unusual operating support conditions, are prohibited unless specifically evaluated and permitted by the supervisor and the ES&H safety team member.

19. Care shall be taken to avoid entanglement.

20. Work area shall be kept clear of workers, equipment, and other obstructions before lowering the platform.

21. The engine shall be shut down and equipment refueled in a well-ventilated area.

22. Battery charging shall be conducted in a well-ventilated area.

23. Operators shall not use batteries that weigh less than the original equipment. Operators shall always wear protective clothing and eyewear when working with batteries.

24. The platform shall not be steadied by positioning it against another object.

25. Operators shall not attempt to increase the stability of a lift by attaching it to an adjacent structure. Operators shall not tie or attach lifts to any adjacent structures.

26. Operators shall not modify or alter an aerial lift. Mounting attachments for holding tools or other materials onto the bucket, platform, toeboards, or guardrail system can increase the weight in the bucket or platform.

27. Operators shall not place or attach fixed or overhanging loads to any part of the machine.

28. Operators shall not place loads outside the platform perimeter.

29. The platform shall not be used as a crane or jack, unless the manufacturer has approved these operations.

30. Operators shall not use the machine to push or pull another object.

31. Operators shall never use the boom to push the aerial lift along the ground or attempt to free a machine by lifting the wheels off the ground with the boom.

32. Operators shall limit travel speed according to conditions.

33. Traveling 50 feet or more with an aerial lift shall be done with the platform in the lowered or stowed position. Extendable or articulating booms shall be retracted or folded.

34. Elevated driving requirements and repositioning of the aerial lift while elevated shall include maintaining a clear view of the support surface and route of travel, ensuring the safety of workers in the area and maintaining safe distances from hazards and overhead obstacles that could present crushing hazards. Operators shall not drive over 0.5 mph with the platform elevated.

35. Stunt driving is prohibited.

36. When the aerial platform is unattended, it shall be secured to protect against unauthorized use.

37. The altering of safety devices is prohibited.

38. Personnel shall leave the lift before attempting to free a snagged platform.

39. Entering or existing the elevated platform shall be done per the manufacturer's instructions.

40. Operators shall use the three (3) point contact method (3 out of 4 arms and legs in contact with the machine) when mounting and dismounting the platform or bucket. Never attempt to mount or dismount a moving machine or climb down the frame or boom from the platform or bucket when raised.

41. When required to exit or climb out of an elevated aerial lift to a location not otherwise protected by guardrails, floors, or other continuous means of fall protection, operators shall use a second shock-absorbing lanyard to connect to the new location before disconnecting from the aerial lift. When entering an aerial lift from an unprotected location, operators shall connect a shock-absorbing lanyard to the anchorage point in the aerial lift before entering.

42. Modifications will only be approved with or by the prior written permission of the manufacturer.

43. Materials shall be carried on the platform as specified in the manufacturers' recommendations for load capacity.

44. The rated horizontal force on the platform shall not be exceeded.

45. Operators shall not exceed the manufacturers' limits when pushing on or pulling toward any object outside of the lift or platform.

46. Steps shall be taken to avoid collision of the platform with any crane or overhead equipment, moving or not.

47. Support requirements for the platform shall be adequate before work begins.

48. The aerial platform shall be leveled using the manufacturers' outriggers and leveling devices and the brakes set.

49. Operators shall not use lifts as a ground for welding.

50. Operators shall not increase the surface area of a platform or the load. By increasing the area exposed to the wind, the stability of the machine is decreased.

51. Only one designated person should operate the controls. Operators shall never allow anyone to tamper with, service, or operate a machine from the lower control station while workers are in the bucket or platform except in an emergency.

52. Operators shall not operate lifts during inclement weather, unless approved by the manufacturer for this purpose (i.e., bucket / line trucks).

Scaffolding Safety Program

Regulatory Standards:
OSHA 29 CFR 1910.28 Safety requirements for scaffolding
OSHA 29 CFR 1910.29 Manually propelled mobile scaffolds
OSHA 29 CFR 1926.451 - 453 Requirements for scaffolding

Scaffolds are a major source of injuries and fatalities. Of the 510,500 injuries and illnesses that occur in the construction industry annually, 9,750 are related to scaffolds. In addition, there are an average of 79 scaffold fatalities annually. Most of these accidents can be prevented if proper safety precautions are initiated. OSHA Standards establish uniform requirements to ensure that the hazards existing in U.S. workplaces are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that all potential hazards regarding scaffolding at job sites are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential deficiencies, evaluating the associated potential deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.
Contents of the scaffolding safety program

1. Written program.
2. General requirements.
3. Manufacturer's recommendations for safety.
4. Fixed scaffolding safety policy.
5. Mobile (rolling) scaffolding safety policy.
6. Erecting of scaffolding.
7. Pre-inspection of erected scaffolding.
8. Final inspection of erected scaffolding.
9. Dismantling of scaffolding.
10. Training.

Amiano Construction Scaffolding Safety Program

1. Written program.

AACCI will review and evaluate this standard practice instruction on an annual basis, or when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this company, and that outlines our goals and plans. This written program will be communicated to all affected personnel. It is designed to establish clear goals, and objectives.

2. General safety requirements.

All facilities and equipment owned by this company will be maintained in a safe and healthful manner. Certain work conditions may contain a reasonable probability of injury that can be prevented by proper maintenance and supervision. AACCI will do all possible to ensure the safety of our employees. No employee will knowingly be subjected to a hazardous condition without all possible measures first being implemented.

2.1 Work site requirements: This company provides on-site services to host employers. AACCI employees may be required to work on scaffolding at host employer work sites. Where scaffolding, maintenance, or proximity work is required at individual work sites, the senior AACCI employee present on site will contact the host safety officer to discuss specific scaffolding safety requirements established at the site. This will be accomplished prior to any work by an AACCI employee without exception. This applies to any work site where an employee is sent to work.

3. Manufacturer's recommendations for safety.

To ensure safety and serviceability, manufacturers safety requirements will be observed. This company will maintain contact information for each scaffolding manufacturer whose equipment we use. Erection, general use, and dismantling will be done in accordance with manufacturer guidelines and general safety requirements mandated by OSHA. Where host employer equipment is used, the senior employee on site will obtain erection, general use and dismantling guidance to ensure the safety of our employees. This will be done prior to employees initiating work.

4. Fixed scaffolding safety policy.

To insure safety and serviceability the following general precautions concerning the care and use of scaffolding will be observed:

4.1 Footing and anchorages. The footing and or anchorage for scaffolds will be sound, rigid, and capable of carrying the maximum intended load without settling or

displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks will not be used to support scaffolds or planks.

4.2 Scaffolds and their components will be capable of supporting without failure at least four times the maximum intended load.

4.3 Scaffolds will be maintained in a safe condition at all times in accordance with the manufacturers recommendations. Fixed scaffolds will not be altered or moved horizontally while they are in use or occupied.

4.4 Any scaffold damaged or weakened from any cause will be immediately repaired and will not be used until repairs have been completed.

4.5 Scaffolds will not be loaded in excess of the working load for which they are intended.

4.6 All load-carrying timber members of scaffold framing will be a minimum of 1,500 f. (stress grade) construction grade lumber.

4.7 All planking will be scaffold grade as recognized by grading rules for the type of wood used. The scaffold manufacturers recommendations will be followed.

4.8 Nails or bolts used in the construction of scaffolds will be of adequate size and in sufficient numbers at each connection to develop the designed strength of the scaffold. Nails will not be subjected to a straight pull and will be driven full length.

4.9 All planking or platforms will be overlapped (minimum twelve inches) or secured from movement.

4.10 An access scaffold or equivalent safe access will be provided.

4.11 Scaffold plans will extend over their end supports not less than six inches nor more than eighteen inches.

4.12 The poles, legs, or uprights of scaffolds will be plumb, and securely and rigidly braced to prevent swaying and displacement.

4.13 Materials being hoisted onto a scaffold will have a tag line.

4.14 Overhead protection will be provided for men on a scaffold exposed to overhead hazards.

4.15 Scaffolds will be provided with a screen between the toeboard and the guardrail, extending along the entire opening, consisting of No. 18 gauge U.S. standard wire one-half-inch mesh or the equivalent, where persons are required to work or pass under the scaffolds.

4.16 Employees will not work on scaffolds which are covered with ice or snow, unless all ice and snow is removed and planking sanded to prevent slipping.

4.17 Tools, materials, and debris will not be allowed to accumulate in quantities to cause a hazard.

4.18 Only treated or protected fiber rope will be used for or near any work involving the use of corrosive substances or chemicals.

4.19 Wire or fiber rope used for scaffold suspension will be capable of supporting at least six times the intended load.

4.20 The use of shore scaffolds or lean-to scaffolds will not be used by this company.
4.21 Lumber sizes, when used in this section, refer to nominal sizes except where otherwise stated.
4.22 Scaffolds will be secured to permanent structures, through use of anchor bolts, reveal bolts, or other equivalent means. Window cleaners' anchor bolts will not be used.
4.23 Special precautions will be taken to protect scaffold members, including any wire or fiber ropes, when using a heat producing process.

5. Mobile (rolling) scaffolding safety policy.

To insure safety and serviceability the following general precautions concerning the care and use of scaffolding will be observed:

5.1 Working loads. Work platforms and scaffolds will be capable of carrying the design load under varying circumstances depending upon the conditions of use.
5.2 The design load of all scaffolds will be calculated on the basis of:
Light- Designed and constructed to carry a working load of twenty-five pounds per square foot.
Medium- Designed and constructed to carry a working load of fifty pounds per square foot.
Heavy- Designed and constructed to carry a working load of seventy-five pounds per square foot.
5.3 Nails, bolts, other fasteners used in the construction of ladders, scaffolds, and towers will be of adequate size and in sufficient numbers at each connection to develop the designed strength of the unit. Nails will be driven full length. (All nails should be immediately withdrawn from dismantled lumber).
5.4 All exposed surfaces will be free from sharp edges, burrs or other safety hazards.
5.5 Work levels. The maximum work level height will not exceed four times the minimum or least base dimensions of any mobile scaffold. Where the basic mobile unit does not meet this requirement, suitable outrigger frames will be employed to achieve this least base dimension, or provisions will be made to guy or brace the unit against tipping.
5.6 The minimum platform width for any work level will not be less than twenty inches for mobile scaffolds (towers). Ladder stands will have a minimum step width of sixteen inches.
5.7 The supporting structure for the work level will be rigidly braced, using adequate cross bracing or diagonal bracing with rigid platforms at each work level.

5.8 The work level platform of scaffolds (towers) will be of wood, aluminum, or plywood planking, steel or expanded metal, for the full width of the scaffold, except for necessary openings. Work platforms will be secured in place. All planking will be two inch (nominal) scaffold grade minimum 1,500 f. (stress grade) construction grade lumber or equivalent.

5.9 All scaffold work levels ten feet or higher above the ground or floor will have a standard (four inch nominal) toeboard.

5.10 All work levels ten feet or higher above the ground or floor will have a guardrail of two by four inch nominal or the equivalent installed no less than thirty-six inches or more than forty-two inches high, with a mid-rail, when required, of one by four inch nominal lumber or equivalent.

5.11 Wheels or casters. Wheels or casters will be inspected to ensure that they are provided with strength and dimensions to support four times the design working load.

5.12 All scaffold casters will be inspected to ensure that they are provided with a positive wheel and / or swivel lock to prevent movement.

5.13 Where leveling of the elevated work platform is required, screw jacks or other suitable means for adjusting the height will be used.

5.14 Employees are not permitted to ride rolling scaffolds during relocation.

5.15 Adjusting screws may not be extended more than twelve inches.

5.16 Before moving the platform secure all equipment and material.

5.17 Casters or wheels must have a serviceable locking device.

5.18 Be aware of overhead obstructions when moving scaffolds.

5.19 Never run over electrical cords.

5.20 Never pull scaffolds from the top, always push at base level.

5.21 Work only from the platform area never extend work beyond guardrailing.

6. Erecting of scaffolding.

Only trained and authorized employees of AACCI will supervise the erection of scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following apply:

6.1 Manufacturers erection instructions will be followed.

6.2 Host employer erection policies will be followed.

6.3 Advance planning considerations will be followed during the erection process.

6.4 Only trained and authorized employees will supervise the erection of scaffolding.

6.5 Each component will be visually inspected before use.

6.6 Defective or unserviceable materials will not be used.

6.7 Only approved lumber will be used.

6.8 Consult with the project manager where any instructions are unclear.

7. Pre-inspection of erected scaffolding.
The three main areas of inspection are for rust, straightness of members, and welds. Only trained employees of AACCI will conduct the pre-inspection. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following as a minimum apply:
7.1 Rust. Heavily rusted scaffolding equipment is a possible sign of abuse or neglect. Severely rusted components should e thoroughly inspected and cleaned before approved for use.
7.2 Straightness of members. Mishandling, trucking and storing may cause damage to scaffolding equipment. All members or parts of all steel scaffolding components should be straight and free from bends, kinks or dents.
7.3 Welds. Scaffolding equipment should be checked before use for damaged welds and any piece of equipment showing damaged welds or rewelding beyond the original factory weld should not be used. The factory weld reference pertains to location and quality of rewelds.
7.4 Check serviceability of locking devices.
7.5 Check alignment of coupling pins and braces.
7.6 Check serviceability of caster brakes (rolling scaffolds).

8. Final inspection of erected scaffolding.
Only trained and authorized employees of AACCI will conduct the final inspection of erected scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following as a minimum apply:
8.1 Check for proper support under every leg of every frame.
8.2 Check for wash out (if outside) due to rain.
8.3 Check to ensure all base plates or adjustment screws are in firm contact with supports.
8.4 Check frames for plumbness and squareness in both directions.
8.5 Check serviceability and correctness of all cross braces.
8.6 Check to ensure that all planking and accessories are properly installed.
8.7 Check to ensure that all guard rails are in place.
8.8 Recheck periodically to ensure conditions remain safe.

9. Dismantling of scaffolding.
Only trained and authorized employees of AACCI will supervise the dismantling of scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following apply:
9.1 Manufacturers dismantling instructions will be followed.
9.2 Relocation planning considerations will be considered during the dismantling process.
9.3 Dismantling will be supervised by a competent employee.

9.4 Each component will be visually inspected after use.
9.5 Defective or unserviceable materials will not be stored with serviceable materials.
9.6 Avoid dropping or throwing the components this could result in damage to the equipment.
9.7 Consult with the project manager where any instructions are unclear.

10. Training.
A training program will be provided for all employees who will be using scaffolding in the course of their duties. The training will be conducted by competent personnel. The program will include but will not be limited to:
a. A description of fall hazards in the work area or job site.
b. Procedures for using fall prevention and protection systems.
c. Scaffolding access and egress procedures.
d. Scaffolding equipment limitations.
e. Inspection and storage procedures for the equipment.
10.1 Initial training. Training will be conducted prior to job assignment. AACCI will provide training to ensure that the purpose, function, and proper use of scaffolding is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction will be provided to, and read by all employees receiving training. The training will include, as a minimum the following:
10.1.1 Types of scaffolding used by AACCI
10.1.2 Orientation of the types of scaffolding used by the Host employer.
10.1.3 Recognition of applicable fall hazards associated with the work to be completed and the locations of such.
10.1.4 Load determination and balancing requirements.
10.1.5 Safety precautions in the use of scaffolds.
10.1.6 All other employees whose work operations are or may be in an area where scaffolding may be utilized, will be instructed to an awareness level concerning the associated hazards.
10.1.7 Equipment maintenance and inspection requirements.
10.1.8 Equipment strengths and limitations.
10.1.9 Certification. AACCI will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training. Training will be accomplished by competent personnel.
10.2 Refresher training. This standard practice instruction will be provided to, and read by all employees receiving refresher training. The training content will be identical to initial training. Refresher training will be conducted on an as needed basis or when the following conditions are met, whichever event occurs sooner.
10.2.1 Whenever (and prior to) a change in their job assignments, a change in the type of

scaffolding equipment used, or when a known hazard is added to the work environment which affects this program.
10.2.2 Additional retraining will also be conducted whenever a periodic inspection reveals, or whenever AACCI has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of scaffolding equipment or procedures.
10.2.3 Whenever a scaffolding safety procedure fails.
10.2.4 The retraining will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.
10.2.5 Certification. AACCI will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training. Training will be accomplished by competent personnel.

Fire Safety and Facility Evacuation Plan

Regulatory Standards:
OSHA 29 CFR 1910.36 - 38
OSHA 29 CFR 1910.157
OSHA 29 CFR 1910.165
NFPA 10

Numerous accidents occur that prompt evacuation of industrial facilities nation-wide. OSHA has a general directive for employers to maintain a workplace free of hazards. Under authority of this directive, this plan defines the policy of AACCI with regards to employee evacuation during emergency situations. Reasons for an evacuation include but are not limited to: fire, explosion, chemical spill or leak, severe weather, earthquake, bomb threat and unforeseen emergencies where this plan may prove useful.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the hazards of facility fires and any hazard that might prompt evacuation is transmitted to all employees. This plan is intended to address comprehensively the issue of providing for the orderly evacuation of the facility during emergency situations. The main goal of any evacuation is the rapid, systematic removal of all persons from potentially hazardous areas, to a safe evacuation relocation point and to account for all evacuated employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the facility evacuation program
1. Written plan.
2. Evacuation notification.
3. Employee responsibility.
4. Supervisor responsibility.
5. Employee emergency responsibilities.
6. Procedures for fire and explosions.
7. Power outage procedure.
8. Procedures for a spill or leak.
9. Procedures for severe weather.

10. Procedures for a bomb threat.
11. Procedures for return to work.

**Amiano Construction Facility Evacuation Plan**

1. Written plan.
AACCI will review and evaluate this plan:
a. On an annual basis
b. When changes occur to 29 CFR, that prompt revision of this document
c. When facility operational changes occur that require a revision of this document
d. After an evacuation, to make improvements from "lessons learned"
e. Any time a component of the plan fails.

2. Evacuation notification.
The senior AACCI employee on site will coordinate with the Host safety officer to determine the methods the facility uses for evacuation notification. This information will be passed to AACCI employees. AACCI employees will evacuate to the same evacuation relocation points as the permanent host on-site employees in the area they are working.
2.1 The order to evacuate will be made by the site safety officer or any employee who recognizes a potentially dangerous or life threatening situation.
2.2 All evacuations ideally will start with either the fire alarm signal, or the announcing of the evacuation order over the public address system, or the notification of an affected area supervisor.
2.3 All evacuation orders ideally should include:
2.3.1 The reason for the evacuation.
2.3.2 The area or areas involved in the evacuation.
2.3.3 Any area or areas to be avoided in the evacuation.
2.3.4 Any evacuation relocation points that must be avoided.
2.3.5 Evacuation relocation points that employees should proceed to.

3. Employee responsibility.
3.1 All employees upon receipt of an evacuation order shall exit the work area via the nearest unaffected exit. They shall proceed to the designated evacuation relocation point for the area they were in at the time of the evacuation order, quickly and quietly. They shall also upon request, aid their supervisor in taking roll or by being a runner.
3.2 Egress routes. All employees shall become familiar with the location of all posted egress routes of the facility areas that they frequent and shall know the primary and secondary egress routes of their work area.
3.3 Evacuation relocation points. All employees shall become familiar with marked evacuation points and shall know the primary evacuation relocation point of the facility

areas that they frequent and for their work area.
IMPORTANT: NO ONE WILL LEAVE AN EVACUATION RELOCATION POINT OR WORK SITE DURING AN EMERGENCY WITHOUT THE EXPRESS PERMISSION OF THE SENIOR EMPLOYEE PRESENT. TO DO SO CAN NEEDLESSLY ENDANGER EMERGENCY RESPONSE PERSONNEL WHO MUST SEARCH FOR MISSING EMPLOYEES. ALL EMPLOYEES MUST REPORT TO THE SENIOR HOST OR AACCI EMPLOYEE AT THE RELOCATION POINT TO ENSURE THEIR WHEREABOUTS ARE KNOWN.

3.4 Severe weather safe spots. All employees shall become familiar with posted severe weather safe spots, and shall know the location of the nearest severe weather safe spot for the areas that they frequent and their work area. Upon the announcement of a "take-cover" order proceed to the designated safe spot.
3.5 Arrival actions. Upon arrival at an evacuation relocation point, each employee shall seek out the senior employee present to assure that they have been accounted for. They shall also upon request, aid area supervisors or managers in taking a roll or by being a runner.

4. Supervisor responsibility.
4.1 If time permits, supervisors shall determine what machines or processes should be shut down. Hazardous process shut down will be done in accordance with established procedures.
4.2 Supervisors shall assist employees in making a quick egress of the area and direct them to the assigned evacuation relocation point.
4.3 Supervisors shall take role to assure all their employees are accounted for and shall submit a list of any employees missing and / or additional persons located at their evacuation relocation point to senior management and / or the responding fire department.

5. Amiano Construction emergency responsibilities.
5.1 The evacuation of an employee of a contractor is the responsibility of that contractor.
5.2 Evacuation relocation points. All contractor employees shall be briefed by AACCI management before entering the site, as part of any required OSHA training. Upon notification of an evacuation they will immediately exit the building via the nearest exit and report to the nearest evacuation point and give their name to the senior employee present.

IMPORTANT: NO ONE WILL LEAVE AN EVACUATION RELOCATION POINT OR WORK SITE DURING AN EMERGENCY WITHOUT THE EXPRESS PERMISSION OF THE SENIOR EMPLOYEE PRESENT. TO DO SO CAN NEEDLESSLY ENDANGER EMERGENCY RESPONSE PERSONNEL WHO MUST

SEARCH FOR MISSING EMPLOYEES. ALL EMPLOYEES MUST REPORT TO THE SENIOR HOST OR AACCI EMPLOYEE AT THE RELOCATION POINT TO ENSURE THEIR WHEREABOUTS ARE KNOWN.

5.3 Severe weather safe spots. All AACCI employees shall be briefed by AACCI management before entering the site, as part of any required OSHA training, the location of severe weather safe spots in the event of an emergency. Upon notification to :"take-cover" they will proceed to the nearest severe weather safe spot and give their name to the senior employee present.

5.4 Temporary work structures. The evacuation of a temporary structure brought onto company property will be the responsibility of AACCI management. Once evacuated, all personnel shall report to the nearest evacuation relocation point and give their name to the senior employee present.

6. Procedures for fire and explosions.

6.1 Upon notification of a fire or explosion by the site emergency notification system, PA tone alarm, fire alarm, or as directed by management, all employees not assigned emergency duties should evacuate the building immediately in accordance with the posted evacuation routes and report to the assigned (or) nearest evacuation relocation point or location designated at the time.

6.2 Supervisor responsibilities. Supervisors will provide guidance and instructions as needed. Evacuation should be done in a calm and orderly manner. If time permits, search all confined areas, such as washrooms, restrooms, etceteras.

IMPORTANT: NO ONE WILL LEAVE AN EVACUATION RELOCATION POINT OR WORK SITE DURING AN EMERGENCY WITHOUT THE EXPRESS PERMISSION OF THE SENIOR EMPLOYEE PRESENT. TO DO SO CAN NEEDLESSLY ENDANGER EMERGNECY RESPONSE PERSONNEL WHO MUST SEARCH FOR MISSING EMPLOYEES. ALL EMPLOYEES MUST REPORT TO THE SENIOR HOST OR AACCI EMPLOYEE AT THE RELOCATION POINT TO ENSURE THEIR WHEREABOUTS ARE KNOWN.

6.3 Employee responsibilities. Once you leave the building, never reenter until instructed to do so by management! If time permits, employees leaving the building should close all doors to help contain the spread of fire.

6.4 Difficulties in evacuation. If smoke and / or heat conditions are encountered while evacuating, remember to stay low to the floor and exit by the nearest door or window. In the event of a major fire, evacuation may have to be delayed until the fire is actually brought under control and / or extinguished. If this situation exists, remain calm and shield yourself from the fire. If you are unable to escape, stuff clothing, rags, etceteras in or around all cracks to help keep the smoke from entering your location. It is most important

to try and notify someone of your location. If the telephone is out of service, try to get someone's attention by yelling or making noises. Above all, try and remain calm until help arrives.

7. Power outage procedure (employee responsibilities).
When a power outage occurs, the following procedures should be followed:
7.1 Stop what you are doing, but do not move around until the emergency lights come on.
7.2 All personnel (except those designated to handle equipment procedures during power failure) should exit the building and report to the senior AACCI employee on site once the emergency lights come on.
7.3 The senior AACCI employee should start a head count.
7.4 The senior AACCI employee should find out the extent of the power failure and issue assignments accordingly, depending on the situation.

8. Procedures for a spill or leak.
8.1 Upon notification of a spill or leak for appropriate evacuation information and evacuate accordingly.
8.2 Listen for information about the incident to determine what actions to take for your safety.

9. Procedures for severe weather.
9.1 Upon notification of impending severe weather, i.e., a tornado warning or severe thunder storm warning, and where immediate danger poses a threat to our facility, the following procedure shall be followed:
9.1.1 Ensure you know where the severe weather safe spots are located.
9.1.2 If possible, monitor the radio or a communication scanner.
9.2 Listen for announcements to determine when the severe weather has passed and the facility has issued a clear weather signal.
9.3 If any damage has occurred to AACCI property notify the senior AACCI employee present.

10. Procedures for a bomb threat.
10.1 If you personally receive notification of a bomb threat notify the proper authorities, i.e., police, fire department, and appropriate on-site management.
10.2 Evacuation in accordance with local procedures and notify the proper authorities of your location.
10.3 Provide all information about the incident to appropriate on-site management, or government agencies (local, state, federal) that have been requested to respond.

11. Procedures for return to work.

11.1 Facility evacuation. After a survey of the facility has been conducted by emergency responders, and / or personnel designated by on-site management, the decision for return to work will be made. If the area is declared hazard free personnel may return to work once the order is given. If hazards are detected personnel will be released to go home.

IMPORTANT: NO ONE WILL LEAVE AN EVACUATION RELOCATION POINT OR WORK SITE DURING AN EMERGENCY WITHOUT THE EXPRESS PERMISSION OF THE SINIOR EMPLOYEE PRESENT. TO DO SO CAN NEEDLESSLY ENDANGER EMERGNECY RESPONSE PERSONNEL WHO MUST SEARCH FOR MISSING EMPLOYEES. ALL EMPLOYEES MUST REPORT TO THE SENIOR HOST OR AACCI EMPLOYEE AT THE RELOCATION POINT TO ENSURE THEIR WHEREABOUTS ARE KNOWN.

11.2 Severe weather. After the "take-cover" order, all personnel shall proceed to their safe spot and remain there until the all clear announcement is made.

Fire Extinguisher Program

Regulatory Standards:
OSHA 29 CFR 1910.157
NFPA 10

Over 150 major fires occur in workplaces on an annual basis. Fire is the third leading cause of accidental deaths in the United States. The Occupational Safety and Health Administration (OSHA) has established federal regulations in 29 CFR (code of federal regulation), 1910.157 for portable fire extinguishers and their use. OSHA has a general directive for employers to maintain a work place free of hazards. Under authority of this directive, OSHA requires that "employers shall provide portable fire extinguishers and shall mount, locate, and identify them so that they are readily accessible to employees without subjecting employees to possible injury". OSHA requires that education and training be provided to employees as well.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the OSHA mandated requirements for the operation and use of fire extinguishers is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential fire hazards, providing fire fighting equipment, and providing training concerning these hazards to employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the fire extinguisher program
1. Written program.
2. Selection and distribution of fire extinguishers.
3. Labeling of fire extinguishers.
4. General requirements.
5. Master list of fire extinguishers.
6. Inspection, maintenance, and testing.
7. Training and education.

**Amiano Construction Fire Extinguisher Program for Incipient Fires**

1. Written program.

AACCI will review and evaluate this standard practice instruction:

a. On an annual basis
b. When changes occur to 29 CFR, that prompt revision of this document
c. When facility operational changes occur that require a revision of this document
d. When there is an accident or close call that relates to this area of safety
e. Review the program any time these procedures fail

This program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of the number of workers employed or the number of work shifts. It is designed to establish clear goals and objectives.

2. Selection and distribution.

The senior AACCI employee on site will coordinate with the Host safety officer to determine fire extinguisher requirements for AACCI employees working at the site. Where required, AACCI employees will either, be provided, or have immediate access to fire extinguishing equipment. No AACCI employee will be expected to work in a postion where fire extinguishing is required but not immediately available. Portable fire extinguishers shall be selected and distributed based on the classes of anticipated workplace fires and on the size and degree of the hazard which would affect their use.

Fire extinguishers used by this company are for four classes of fire:

Class A fire extinguishers. Use on ordinary combustibles or fibrous material, such as wood, paper, cloth, rubber and some plastics. Travel distance for employees to any extinguisher is seventy-five feet or less.

Class B fire extinguishers. Use on flammable or combustible liquids such as gasoline, kerosene, paint, paint thinners and propane. Travel distance from the Class B hazard area to any extinguisher is fifty feet or less.

Class C fire extinguishers. Use on energized electrical equipment, such as appliances, switches, panel boxes and power tools. Travel distance from the Class C hazard area to any extinguishing agent is fifty feet or less.

Class D fire extinguishers. Use on combustible metals, such as magnesium, titanium, potassium and sodium. Travel distance from the combustible metal working area to any extinguishing agent is seventy-five feet or less.

3. Labeling of fire extinguishers. All fire extinguishers used by AACCI will be labeled in accordance with NFPA 10, standard for portable fire extinguishers.

Locations where fire extinguishers are mounted will also comply with NFPA 10 for labeling purposes.

4. General requirements:
Amiano Construction has provided portable fire extinguishers for employee use in the event of an incipient fire. The following key personnel have specific responsibilities.
A. Safety officer
Manage the fire extinguisher program.
Schedule the proper training for employees.
Update the program when necessary.
Record and maintain training records.
Ensure monthly / annual inspections are being conducted.

B. Department and first line supervisors
Ensure fire extinguishers are accessible where required for safe work.
Ensure employees are aware of where extinguishers are located.
Make sure extinguishers are clean and are free from obstructions.
Report to the safety officer that a fire extinguisher has been used or damaged.

All fire extinguishers shall be maintained as follows:
Numbered to identify their proper location.
Fully charged and in operable condition.
Clean and free of defects.
Readily accessible at all times.

Note: AACCI will not use portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents. Portable fire extinguishers that have soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent shall be removed from the facility permanently.

5. Inspection, maintenance, and testing.
When Amiano Construction employees are working at a Host employer work site, the Host employer is responsible for the inspection, maintenance, and testing for all fire extinguishers on the premises.

AACCI will assure that all portable fire extinguishers subject to use by its employees are maintained in the following manner:
Monthly visual inspections.
Annual maintenance check.
Six year tear down maintenance.
Twelve year hydrostatic test.

Extinguishers are compatible with the anticipated fires in the work area.

6. Training and education.
Selected employees will be provided with an educational program to familiarize them with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting. Training will require annual updating to ensure the proper procedures are being followed.
Training sources. Training will be conducted where possible from the following sources:
a. Local (City) fire department resources.
b. County or regional fire response resources.
c. Host employer training resources.
d. Independent safety consultant resources.

Initial training outline.
a. General principles of a fire.
b. Hazards employed with an incipient stage fire(s).
c. When to "back off" (evacuate) of an incipient stage fire(s).
d. General fire principles of a fire extinguisher.
e. Hazards employed with the use of a fire extinguisher.
f. Use of a fire extinguisher (hands on).

Retraining.
Retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary. Retraining shall be provided for all authorized and affected employees whenever there is:
A change in machines, equipment, or processes that present a new potential fire hazard.
There is a change in the fire prevention procedures.
This employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of fire extinguishers or fire prevention procedures.

Training documentation.
All training will be documented and each employee's understanding will be subject to a hands on test. Documentation will consist of, as a minimum, the employee's name, the trainer's name, the date of the training, and an outline of training provided.

Certification.
This employer shall certify that employee training has been accomplished and is being kept up to date.

Hazard Communication Program

Regulatory Standards:
OSHA 29 CFR 1910.1200

About 32 million workers are potentially exposed to one or more chemical hazards on a daily basis. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employer. The OSHA hazard communication standard establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the hazards of all chemicals our employees come in contact with are evaluated, and that the information concerning their hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential hazards of chemicals, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the hazard communication program

1. Written program.
2. Training program.
3. Labeling program.
4. Material safety data sheets program.
5. Non-company employees program.
6. Trade secrets.
7. Unlabeled process piping.
8. Non-routine tasks.
9. Definitions.
10. Sample letter requesting an MSDS.

## Amiano Construction Hazard Communication Program

1. Written program.
This standard practice instruction will be maintained in accordance with 29 CFR 1910.1200 and updated as required. Where no update is required this document will be reviewed annually. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts work sites. It is designed to establish clear goals, and objectives.
Amiano Construction shall:
1.1 Annually review and revise this written hazard communication program based on company operational requirements or, as required by the OSHA hazard communication standard.
1.2 Provide a program to ensure that chemical containers that our employees come into contact with are properly labeled, describe other needed forms of warning, and detail the use and purpose of material safety data sheets (MSDS). Describe how employee information and training requirements will be met, to include the following:
1.2.1 Hazardous chemical list: review as needed, the list of the hazardous chemicals known to be present in each facility we work in using an identity that is referenced from the appropriate material safety data sheet.
1.2.2 Non-routine tasks: detail the method AACCI will use to inform employees of the hazards of non-routine tasks. Immediate supervisors of affected employees will oversee this requirement. The safety officer may be consulted to provide any task hazard analysis assistance required.
1.2.3 Facility piping: the hazards associated with chemicals contained in process or facility piping routed through their intended work area. Immediate supervisors of affected employees will oversee this requirement.
1.2.4 Normal operating conditions: the methods AACCI will use to inform employees of any precautionary measures that need to be taken to protect employees during normal operating conditions and in foreseeable emergencies. Immediate supervisors of affected employees will oversee this requirement.
1.2.5 Written program availability: AACCI shall make the written hazard communication program available to all employees, during each work shift.

2. Training program.
AACCI shall coordinate with Host employers to provide employees with any needed information and training on hazardous chemicals typically to be found in their work area at this site.
2.1 Information. AACCI employees shall be informed of:

2.1.1 Any operations in their work area where hazardous chemicals are present.
2.1.2 The location and availability of the written hazard communication program, including a list(s) of hazardous chemicals used in their department, and the associated material safety data sheet (MSDS).
2.2 Annual training. General hazard communication training at AACCI shall be conducted annually. Site specific hazard communication training will be coordinated with the Host employer safety officer. Any site specific differences in the way hazardous chemicals managed on site will be communicated to employees prior to the initiation of work. Annual training will be conducted by an approved training instructor. Newly hired personnel will be briefed on the general requirements of the OSHA hazard communication standard, as well as duty specific hazards by their immediate supervisor before they begin these duties. This training will include at least the following:
2.2.1 Methods (subjective and objective) that may be used to detect the presence or release of a hazardous chemical in the Host employer work area. This will include; any monitoring conducted by AACCI or Host employers, continuous monitoring devices, visual appearance, or odor of hazardous chemicals when being released, etceteras, material safety data sheets (MSDS) will be used to augment this requirement where ever possible.
2.2.2 The physical and health hazards of the chemicals present in the Host facility work area.
2.2.3 The measures employees can take to protect themselves from site work hazards. Specific procedures AACCI has implemented to protect employees from exposure to hazardous chemicals, to include; appropriate work practices, standard practice instructions, emergency procedures, and personal protective equipment.
2.2.4 An explanation of the labeling system used at the Host work facility, the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
2.2.5 The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards.
2.2.6 Physical and chemical characteristics of the hazardous chemical including; vapor pressure, and flash point.
2.2.7 The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity.
2.2.8 The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical.
2.2.9 The primary route(s) of entry; inhalation, absorption, ingestion, injection, and target organs.
2.2.10 The OSHA permissible exposure limit, ACGIH threshold limit value, including any other exposure limit used or recommended by the chemical manufacturer.
2.2.11 Whether the hazardous chemical has been found to be a potential carcinogen by the

International Agency for Research on Cancer (IARC).
2.2.12 Any generally applicable precautions for safe handling and use which are known including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean up of spills and leaks.
2.2.13 Any generally applicable control measures which are known appropriate engineering controls, work practices, or personal protective equipment.
2.2.14 Emergency and first aid procedures.
2.2.15 How to determine the date of preparation of the material safety data sheet concerned, and or the last change to it.
2.2.16 Specific chemical identity such as the chemical name, chemical abstracts service (CAS) registry number, synonyms, or any other information pertinent to the training session.
2.3 Site specific requirements of Host employers. Site specific hazard communication training at Host employers will be coordinated with the Host employers safety officer. Any site specific requirements in the way hazardous chemicals are managed on site will be communicated to employees prior to the initiation of work.
2.4 Documentation. All training will be documented using a standard company attendance roster. Certificates of completion will be issued to attendees. A copy of the completion certificate will be maintained as part of the employees permanent company record.
3. Labeling requirements.
Labeling requirements of containers of chemicals used at AACCI, as well as of containers of chemicals and hazardous materials being used by Host employers will be communicated to employees of AACCI. The following standard OSHA requirements apply to both AACCI and Host employers:
3.1 Unmarked containers. No unmarked container containing chemicals may be used in conjunction with any duties or operations at AACCI, unless the container is a portable container in the control of a specific person for their immediate use. Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this standard practice instruction, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers. Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.
3.2 Container labeling. AACCI will maintain and provide a container labeling kit to any employee requesting its use. Employees shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced. Containers containing hazardous chemicals will be properly disposed of and the labels defaced after use. Once they are emptied, chemical containers can never be used in the place of any other container (i.e., trash receptacles).

3.3 Label information for a single chemical (non-mixture). AACCI will provide the appropriate hazard rating and chemical compatibility charts to label containers. The MSDS will be consulted first to determine labeling requirements. The label as a minimum will contain:
3.3.1 Information concerning the personal protective equipment (PPE) required to use or handle the chemical.
3.3.2 The DOT hazard class i.e., whether the chemical is flammable, toxic, irritating, corrosive, water reactive, or is an oxidizer.
3.3.3 The chemical name as reflected on the MSDS.
3.3.4 The normal operational use of the chemical.
3.3.5 Name, address, and emergency phone number of the chemical manufacturer, importer, or other responsible party.
3.4 Where labels are not required. Questions concerning any of the exceptions listed below should be directed to the safety officer for clarification. AACCI generally should not be affected by these requirements, however they are provided for information and because they are included in the hazard communication standard. The hazard communication standard does not require labeling of the following chemicals:
3.4.1 Any pesticide as such term is defined in the federal insecticides, fungicide, and rodenticide act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that act and labeling regulations issued under that act by the Environmental Protection Agency.
3.4.2 Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) and regulations issued under that Act, when they are subject to the labeling requirements under that Act by the Food and Drug Administration;
3.4.3 Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, and Firearms.
3.4.4 Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission.

4. Evaluation and distribution of material safety data sheets to employees.
4.1 AACCI shall maintain copies of any material safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a material safety data sheet for sealed containers of hazardous chemicals received without a

material safety data sheet if an employee requests the material safety data sheet, and shall ensure that the material safety data sheets are readily accessible during each work shift.
4.2 Master copies of each MSDS will be maintained in AACCI's office.
4.3 Worker copies will be available to all employees in the facility. Additionally, a list of the hazardous chemicals known to be present in each department using an identity that is referenced from the appropriate material safety data sheet will be maintained. AACCI will ensure a system is in place to maintain a current set of MSDS's.
4.3 MSDS copies will be maintained for all chemicals abandoned for use for a period of 30 years.
4.4 MSDS requests. A request letter will be forwarded to any vendor or Host employer who does not provide an MSDS when required by an employee to determine safe work practices.
5. Non-company employees program.
Visitors, contract employees, contractor personnel and in-house representatives. The principle company escort or contact will advise visitors, contract employees, contractor personnel, and in-house representatives of any chemical hazards that may be encountered in the normal course of their work on the premises, the labeling system in use, the protective measures to be taken, the safe handling procedures to be used, and availability of MSDS's. Any contractor bringing chemicals on site must provide AACCI with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.

6. Trade secrets.
To protect trade secrets, the chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name, and other specific identification of a hazardous chemical, from the material safety data sheet. AACCI will obtain any information not shown on a MSDS from a supplier or Host employer, when such information is needed to determine the hazardous constituents of chemicals our employees may come into contact with AACCI employees will not use a specific chemical, if they cannot determine from the MSDS (or other approved source) proper protective measures to be used. The following conditions apply:
6.1 Emergency situations. Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first aid treatment, AACCI suppliers or Host employers required by law to immediately disclose the specific chemical identity of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need of a confidentiality agreement.
6.2 Non-emergency situations. The following OSHA guidelines apply when requesting information designated as a trade secret from a MSDS. Requesters of trade secret information will:

6.2.1 Provide the request in writing.
6.2.2 Explain in detail why the disclosure of the specific chemical identity is essential.
6.2.3 Agree (when required) in a written confidentiality agreement that the information will not be used for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in 29 CFR 1910.1200.
6.2.4 Use the information for the following reasons:
6.2.4.1 To assess the hazards of the chemicals to which employees will be exposed.
6.2.4.2 To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels.
6.2.4.3 To conduct preassignment or periodic medical surveillance of exposed employees.
6.2.4.4 To provide medical treatment to exposed employees.
6.2.4.5 To select or assess appropriate personal protective equipment for exposed employees.
6.2.4.6 To select or improve engineering controls or other protective measures for exposed employees, and to conduct studies to determine the health effects of exposure.

7. Unlabeled process piping.
AACCI employees working in areas having process piping will determine the contents of the piping before initiating work. The Host employer will be consulted to identify the material present, the direction of flow and the maximum pressure achieved in the system.

8. Non-routine tasks.
No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non-routine tasks will be evaluated prior to accomplishment of work and the related hazards assessed to develop protective measures. This process will be documented on the company "non-routine assessment form".

9. Definitions commonly found in the OSHA hazard communication standard or that relate to the contents of the standard.

Article- means a manufactured item:
1. Which is formed to a specific shape or design during manufacture.
2. Which has end use function(s) dependent in whole or in part upon its shape or design during end use.
3. Which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any element, chemical compound or mixture of elements and / or compounds.
Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.
Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.
Combustible liquid means any liquid having a flashpoint at or above 100 F (37.8 C), but below 200 F (93.3 C), except any mixture having components with flashpoints of 200 F (93.3 C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.
Common name means any designation or identification such as code name, code number, trade name, brand name, or generic name used to identify a chemical other than by its chemical name.
Compressed gas means:
1. A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 F (21.1 C); or
2. A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 F(54.4 C) regardless of the pressure at 70 F(21.1C); or
3 A liquid having a vapor pressure exceeding 40 psi at 100 F(37.8 C) as determined by ASTM D-323-72.
Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.
Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.
Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.
Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.
Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.
Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.
Exposure or exposed means that an employee is subjected to a hazardous chemical in the

course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etceteras), and includes potential (e.g. accidental or possible) exposure.
Flammable means a chemical that falls into one of the following categories:
1. Aerosol, flammable means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.
2. Gas, flammable means:
2.1 A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen percent by volume or less.
2.2 A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve percent by volume, regardless or the lower limit.
2.3 Liquid, flammable means any liquid having a flashpoint below 100 F (37.8C), except any mixture having components with flashpoints of 100 F(37.8C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.
2.4 Solid, flammable means a solid, other than a blasting agent or explosives defined in $ 190. 109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, for which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows

1. Tagliabue Closed
tester(See American National Standard Method of Testfor Flash Point by Tag Closed Tester, Z11.24-1979 (ASTMM D 56-79) for liquids with a viscosity of less than 45 Saybolt University Seconds (SUS) at 100 F(37.8 C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or

2. Pensky-Martens Closed Tester (See American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D93-79) for liquids with a viscosity equal to or greater than 45 SUS at 100 F (37.9) C), or that contain suspended solids, or that have a tendency to form a surface film under test;

3. Setaflash Closed Tester (see American National Standard Method Test for Flash Point by Setaflash Closed Tester (ASTMD 3278-78)). Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

Hazard warning means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the hazard(s) of the chemical(s) in the container(s).

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term health hazard includes chemicals which are carcinogens, toxins or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepattotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A, to 29 CFR 1910.1200 provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B, 29 CFR 1910.1200 describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard practice instruction.

Identity means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

Control of Hazardous Energy Sources (Lockout / Tagout)

Regulatory Standards:
OSHA 29 CFR 1910.147

Approximately three million workers in the United States on a daily basis, face extreme risk from uncontrolled energy when servicing machinery. Serious injury or death can be the result. Typical non-lethal injuries included fractures, lacerations, contusions, amputations, puncture wounds, electric shock, and falls. The average lost time for injuries runs approximately twenty-four days. OSHA estimates that approximately 120 fatalities and approximately 28,000 serious and 32,000 minor injuries each year could be prevented if proper lockout / tagout procedures at job sites are initiated. This poses a serious problem for exposed workers and their employer. The OSHA control of hazardous energy sources standard establishes uniform requirements to ensure that the hazards of uncontrolled energy in U.S. workplaces are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the hazards of uncontrolled energy that our employees come into contact with are evaluated, and that information concerning these hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential uncontrolled energy sources, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the lockout / tagout program
1. Written program.
2. General requirements.
3. Program implementation.
4. Full employee protection.
5. Energy control procedure exception.

6. Energy control procedures.
7. Facility evaluation.
8. Protective materials and hardware.
9. Inspections and certifications.
10. Initial training.
11. Refresher training.
12. Energy isolation.
13. Notification of employees.
14. Application of control.
15. Release from lockout or tagout.
16. Testing of machines.
17. Non-company personnel.
18. Group lockout or tagout.
19. Shift or personnel changes.
20. Definitions.

1. Written program.
AACCI will review and evaluate this standard practice instruction on an annual basis, and will be maintained in accordance with 29 CFR 1910.147 and updated as required. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts work sites. It is designed to establish clear goals, and objectives.

2. General Requirements.
AACCI will establish lockout / tagout procedures through the use of this document. This standard practice instruction covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees.
2.1 Application. This instruction applies to the control of energy during servicing and/or maintenance of machines and equipment. Normal production operations are not covered. Servicing and/or maintenance which takes place during normal production operations is covered if:

2.1.1 Work Site Requirements: This company provides on-site services to host employers. AACCI employees may be required to repair, service or workin close proximity to machines or equipment where LOTO is required as part of their daily duties. This applies

to any work site where an employee is sent to work. Where LOTO is required at individual work sites the senior AACCI employee present on site will contact the host safety officer to discuss specific LOTO requirements established at the site. This will be accomplished prior to start of work by AACCI employee without exception. This applies to any work site where an employee is sent to work.

2.1.2 Guards and Safety Devices. An employee is required to remove or bupass a guard or other safety device.

2.1.3 Point of Operation Hazards: An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.

Exception: Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection in accordance with company operational procedures.

2.1.3 This instruction does not apply to the following:

2.1.3.1 Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.

2.1.3.2 Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines, provided it is demonstrated that (1) continuity of service is essential; (2) shutdown of the system is impractical; and (3) documented company procedures are followed, and special equipment is used which will provide proven effective protection for our employees.

3. Program Implementation. This employer will establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices, and to otherwise disable machines or equipment to prevent unexpected energization, start-up or release of stored energy in order to prevent injury to employees.

3.1Energy control program. This employer shall establish a program consisting of energy

control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up or release of employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source, and rendered inoperative.

3.1.1 Host Employer Requirements. The senior AACCI employee present on a host employer work site will coordinate LOTO Requirements with the host employer. LOTO Procedures developed by the host employer will be used under the supervision of the host employer. No AACCI Employee is allowed to begin work on any machine or system where LOTO is required before energy control procedures have been determined, approved and implemented by the senior AACCI employee on site.

3.1.2 Tagout. If an energy isolating device is not capable of being locked out, this employer's energy control program shall utilize a tagout system.

3.1.3 Lockout. If an energy isolating device is capable of being locked out, this employer's energy control program shall utilize lockout, unless it can be demonstrated that the utilization of a tagout system will provide full employee protection.

3.1.4 Future Requirements. Whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machine or equipment shall be designed to accept a lockout device.

**4. Full Employee Protection.**

4.1 Tagout Location. When a tagout device is used on an energy isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and this employer shall demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.

4.2 Lockout Equivalency Demonstration. In demonstrating that a level of safety is achieved in the tagout program which is equivalent to the level of safety obtained by using a lockout program, this employer shall demonstrate full compliance with all tagout related provisions together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of full employee protection shall include where

possible the implementation of additional safety measures such as the:

4.2.1 Removal of an isolating circuit elements.

4.2.2 Blocking of controlling switches.

4.2.3 Opening of an extra disconnecting device.

4.2.4 Removal of a valve handles to reduce the likelihood of inadvertent energization.

5. Energy Control Procedure Exceptions. Once coordination has been done with the host employer, LOTO need not implemented when the following conditions exist:

5.1 The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees.

5.2 The machine or equipment has a single energy source, which can be readily identified and isolated.

5.3 The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.

5.4 The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.

5.5 A single lockout device will achieve a locked-out condition.

5.6 The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance.

5.7 The servicing or maintenance does not create hazards for other employees.

5.8 This employer, in utilizing this exception, has had no accidents involving the unexpected activation or reenergization of the machine or equipment during servicing or maintenance in the event of such occurrences, energy control procedures will be developed.

6. Energy Control Procedure.

6.1 Once LOTO coordination has been conducted with a host employer, host employer

procedures shall be utilized for the control of potentially hazardous energy.

6.2 Procedural Format. As a minimum, the following OSHA required format will be followed for each machine requiring LOTO procedures. If the senior AACCI employee determines that the host employer's procedures lack the necessary information for a safe LOTO operation work will be halted until such issues are resolved. The senior AACCI employee on site will be responsible for the implementation of these procedures. The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:

6.2.1 A specific statement of the intended use of the procedure.

6.2.2 Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy (manufacturers specification will be followed when ever possible.

6.2.3 Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the person(s) responsible for them.

6.2.4 Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

7. Facility Evaluation. This employer shall coordinate with, and evaluate any host employer facility(s) to determine which machines or pieces of equipment that we may perform work on require LOTO. This will include a determination of the required steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy.

8. Protective Materials and hardware. Appropriate lockout devices such as; locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware shall be provided by this employer for isolating, securing or blocking of machines or equipment from energy sources based on the individual machine / equipment evaluation.

8.1 Selection Criteria.

8.1.1 Lockout / tagout devices shall be singularly identified; shall be the only devices used for controlling energy; shall not be used for other purposes; and shall meet the following requirements:

8.1.2 Selected lockout and tagout devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.

8.1.3 Selected tagout devices shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.

8.1.4 Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.

8.1.5 Standardization within the facility. The senior AACCI employee on a host employer work site will coordinate with the host to ensure that our employees use devices and tags that are standardized with other LOTO equipment on site. Lockout and tagout devices shall be standardized within any facility that we perform work in at least one of the following criteria: Color; shape; or size; and additionally, in the case of tagout devices, print and format shall be standardized.

8.1.6 Removal Requirements.

8.1.6.1 Lockout devices. Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools.

8.1.6.2 Tagout devices. Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie.

8.1.7 Identification Requirements.

8.1.7.1 Lockout / tagout devices shall indicate the identity of the employee applying the device(s).

8.1.7.2 Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate, etc.

9. Inspections and Certifications.

9.1 Inspections. Host employers must conduct periodic inspections of their energy control procedures for each machine or piece of equipment at least annually to ensure that the procedures and the requirements of this instruction are being followed. Amiano Construction will review the host employer's procedures before work is initiated by our employees.

9.2 Certifications. This employer will determine if the host employer has certified that periodic machine or equipment inspections have been performed in order to ensure the safety of our employees while on site. Certifications must as a minimum identify:

9.2.1 The machine or equipment on which the energy control procedure was being utilized.

9.2.2 The date of the inspection.

9.2.3 The employees included in the inspection.

9.2.4 The person performing the inspection.

10. Initial Training.

10.1 This employer shall provide training to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees. The training shall include the following:

10.1.1 Each authorized employee shall receive training in the recognition of applicable hazardous energy source, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

10.1.2 Each affected employee shall be instructed in the purpose and use of the energy control procedure.

10.1.3 All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

10.2 When tagout systems are used, employees shall also be trained in the following limitations of tags:

10.2.1 Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

10.2.2 When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.

10.2.3 Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective. Illegible or missing tags will be reported to the senior AACCI employee on site immediately.

10.2.4 Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace

10.2.5 Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.

10.2.6 Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

11. Refresher Training.

11.1 Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments that present a new hazard, or when there is a change in the energy control procedures.

11.2 Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever this employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

11.3 The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

11.4 Certification. This employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

12. Energy Isolation. Lockout or tagout shall be performed only by the authorized employees who are performing the servicing or maintenance.

13. Notification of Employees. Affected employees shall be notified of the application and removal of lockout devices or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

14. Application of Control. Host employer lockout or tagout procedures must cover the following elements and actions and shall be done in the following sequence:

14.1 Preparation for shutdown. Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

14.2 Machine or equipment shutdown. The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

14.3 Machine or equipment isolation. All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

14.4 Lockout device application.

14.4.1 Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.

14.4.2 Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in a "safe" or "off" position.

14.4.3 Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.

14.5 Tagout device application.

14.5.1 Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.

14.5.2 Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

14.6 Stored energy.

14.6.1 Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe.

14.6.2 If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

14.7 Verification of isolation. Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.

15. Release from Lockout or Tagout.

15.1 Before lockout or tagout devices are removed. Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

15.1.1 The machine or equipment. The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.

15.1.2 Employees. The work area shall be checked to ensure that all employees have been safely positioned or removed.

15.2 After lockout or tagout devices are removed. After lockout or tagout devices are removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.

15.3 Lockout or tagout devices removal. Each lockout or tagout device shall be removed

from each energy isolating device by the employee who applied the device. When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the senior AACCI employee on site and the host employer safety officer, provided that specific procedures and training for such removal have been developed, documented and incorporated into this employer's energy control program. This employer shall demonstrate that the specific procedure provides equivalent safety to the removal of the device by the authorized employee who applied it. The specific procedure shall include at least the following elements:

15.3.1 Verification that the authorized employee who applied the device is not at the facility.

15.3.2 Making all reasonable efforts to contact the authorized employee to inform him / her that his / her lockout or tagout device has been removed.

15.3.3 Ensuring that the authorized employee has this knowledge before he / she resumes work at that facility.

16. Testing of machines, Equipment, or Components.

16.1 Testing or positioning of machines, equipment or components thereof. In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

16.1.1 Clear the machine or equipment of tools and materials.

16.1.2 Remove employees from the machine or equipment area.

16.1.3 Remove the lockout or tagout devices as specified as part of the individual machine procedures.

16.1.4 Energize and proceed with testing or positioning.

16.1.5 De-energize all systems and reapply energy control measures in accordance with machine procedures and continue the servicing and / or maintenance.

17. Non-Company Personnel (contractors, etc.).

17.1 Whenever Amiano Construction uses outside servicing personnel who are engaged in activities covered by the scope and application of this instruction, this company shall ensure that they are qualified and trained in lockout tagout procedures.

17.2 This company shall ensure the his / her employees understand and comply with the restrictions and prohibitions of the host employer's energy control program.

18. Group Lockout or Tagout.

18.1 When servicing and / or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.

18.2 Group lockout or tagout devices shall be used in accordance with the procedures required by this instruction governing individual procedures which shall include, but not necessarily limited to, the following specific requirements:

18.2.1 Primary responsibility will be vested in an authorized employee for a set number of employees working under the protection of a group lockout or tagout device (such as an LOTO operations lock and lock box).

18.2.2 Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment will be made.

18.2.3 When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility will be vested to an authorized employee designated to coordinate affected work forces and ensure continuity of protection.

18.2.4 Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.

19. Shift or Personnel Changes. Specific procedures shall be utilized during shift or

personnel changes to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy.

20. Definitions Applicable to the Instruction.

Affected employee- An employee whose job requires him / her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him / her to work in an area in which such servicing or maintenance is being performed.

Authorized employee- A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Capable of being locked out- An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

Energized- Connected to an energy source or containing residual or stored energy.

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

Energy source- Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Hot tap- A procedure used in the repair, maintenance and services activities which involves

welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

Lockout- The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device- A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Normal production operations- The utilization of a machine or equipment to perform its intended production function.

Servicing and / or maintenance- Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and / or servicing machines or equipment. These activities include lubrication, cleaning or un-jamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up- Any work performed to prepare a machine or equipment to perform its normal production operation.

Tagout- The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device- A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Crane Safety Program

Regulatory Standards:
OSHA 29 CFR 1910.179
OSHA 29 CFR 1926.550
OSHA 29 CFR 1903.1
CMAA - Spec. No 70 and 74
ANSI - ANSI/ASME
B-30 Series Cranes, Derricks, Hoists
B-30.2 Overhead and Gantry Cranes (Top Running Hoist)
B-30.10 Hooks
B-30.11 Monorail and Underhung Cranes
B-30.16 Overhead Hoists (Underhung)
B-30.17 Overhead and Gantry Cranes (Underhung Hoists)
B-30.18 Stacker Cranes
B-30.21 Manually Lever Operated Hoists

Serious injury or death can be the result of improper use, or use of cranes having defective or poorly maintained components. OSHA estimates that most of these types of accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The OSHA crane safety standards establish uniform requirements to ensure that the hazards associated with the use of cranes in U.S. workplaces are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that all cranes used by our employees are evaluated to ensure safe working conditions. This standard practice instruction is intended to address comprehensively the issues of; evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

CONTENTS OF THE CRANE SAFETY PROGRAM

1. Written Program.
2. General Requirements.
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Amiano Construction Crane Safety Program

1. Written program.

AACCI will review and evaluate this standard practice instruction on an annual basis, or when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this company, and that outlines our goals and plans. This written program will be communicated to all affected personnel. It is designed to establish clear goals, and objectives.

2. General requirements.

AACCI will establish crane safety and operational procedures through the use of this document. This standard practice instruction applies to cranes used in conjunction with other material handling equipment for the movement of material.

2.1 Work site requirements: AACCI provides on site services to Host employers. Amiano employees may be required to work in close proximity to cranes. Where crane operation, maintenance, or proximity work is required at individual work sites, the senior Amiano Construction employee present on site will contact the Host safety officer to discuss specific crane safety requirements established at the site. This will be accomplished prior to any work by an AACCI employee without exception. This applies to any work site where an employee is sent to work.

3. Initial training.

Training shall be conducted prior to job assignment. This employer shall provide training to ensure that the purpose, function, and proper use of cranes is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction shall be provided to, and read by all employees receiving training. The training shall include, as a minimum the following:

3.1 Preoperational inspection requirements of the crane to be used.

3.2 Specific operational requirements of the crane to be used.

3.3 Principles of crane operations.

3.4 Recognition of applicable hazards associated with the work to be completed.

3.5 Load determination and balancing requirements.

3.6 Procedures for removal of a crane from service.

3.7 All other employees whose work operations are or may be in an area where cranes may be utilized, shall be instructed to an awareness level concerning hazards associated with cranes.

3.8 Physical and mental requirements of operators. Crane operators will be screened for physical and mental impairments that could result in improper use. Operators will meet as a minimum, the following requirements before being certified to operate cranes.

- Be drug and alcohol free during any lifting event.
- Be thoroughly trained in all facets of the required lift.
- Have a mature and safe attitude at all times.
- Have good depth perception (essential for load spotting).
- Have good hearing and vision (corrected or uncorrected).
- Have no history of unsafe acts in the workplace.
- Have the ability to react quickly in an emergency.
- Take no medication that will interfere with the operation.
- Understand the requirements for all phases of the lift.

3.9 Certification. This employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

4. Refresher Training. This standard practice instruction shall be provided to, and read by all employees receiving refresher training. The training content shall be identical to initial training. Refresher training will be conducted when the following conditions are met.

4.1 Retraining shall be provided for all authorized and affected employees whenever (and prior to) there being a change in their job assignments, a change in the type of crane used, equipment being lifted, lifting procedures, or when a known hazard is added to the lifting environment.

4.2 Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever this employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of crane procedures.

4.3 The retraining shall reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.

4.4 Certification. This employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

5. Safe Operating Practices for Operators. Whenever any crane is used, the following safe practices (as a minimum) shall be observed:

1. Always check warning devices and signals before use.
2. Always document and maintain inspection records.
3. Always ensure cranes shall not be loaded in excess of their rated capacities.
4. Always ensure the new location supports the weight of equipment and materials.
5. Always keep employees clear of lifted and / or suspended loads.
6. Always keep suspended loads clear of all obstructions.
7. Always lockout before maintenance or repairing cranes.
8. Always position the hook directly over the load before lifting.
9. Always test brakes by a short lift to ensure control.
10. Before being lifted, loads will be checked for proper balance.
11. Follow the manufacturer's recommendations.
12. Frequently inspect cranes exposed to adverse conditions.
13. Hands must be clear of the suspension means and the load during lifting.
14. Always know where you're going to set the load down!
15. Always know your travel path in advance of the lift!
16. Loads will in all cases be properly balanced to prevent slippage.
17. Move loads only after being signaled by the designated, qualified signaler.
18. Never allow riders on loads or hooks.
19. Never allow unauthorized persons to operate cranes.
20. Never attempt to operate a crane or hoist that is suspected to be unsafe.
21. Never carry loads over workers.
22. Never carry loads past workers (they must yield right of way).
23. Never use a crane that is damaged or defective in any way.
24. Operators must watch the signalers.
25. Shock loading is prohibited.
26. Signalers must keep line-of-sight with the operator.

27. Signalers must watch the load.
28. Test all hoist controls and brakes at the beginning of each shift.

6. Safe Operating Practices for Signalers. Whenever any crane is used, the following safe practices (as a minimum) shall be observed:

1. Ensure that only one person is the designated signaler.
2. Ensure the operator acknowledges every signal.
3. Follow the manufacturer's recommendations.
4. Know the new location will support the weight.
5. Maintain line-of-sight with the operator.
6. Operators must watch the signalers.
7. Plan in advance where the load is going!
8. Stop the operation any time comprehension is lost.

7. Leaving or Parking Hoists or Cranes. Whenever leaving or parking hoists or cranes, the following safe practices (as a minimum) shall be observed:

1. Follow the manufacturer's recommendations.
2. Make a visual check for any dangerous condition.
3. Place all controls in the "off" position.
4. Place main power switch in the "off" position.
5. Raise all hooks to - but not through - limit switches.
6. Report all cranes that are not in operation immediately.
7. Report any defects immediately.
8. Tag out defective equipment immediately.

8. Handling Sling Loads. The following general safe practices (as a minimum) shall be observed when handling slung loads:

1. Always keep hands and fingers clear of untensioned loads.
2. Always keep suspended loads clear of all obstructions.
3. Always keep suspended loads clear of employees.
4. Always pad or protect slings from sharp edges of the load.
5. Always think before you affect a load.
6. Determine the history of the care and usage of the sling.
7. Determine the number of sling legs (if used) and load requirements.

8. Ensure you know the rated capacity of the sling.
9. Ensure you know the angle the sling makes with the horizontal line.
10. Ensure you know the size, weight, and center of gravity of the load.
11. Follow the manufacturer's recommendations.
12. Never load in excess of the rated capacity.
13. Never pull a sling from a suspended load under tension.
14. Never shorten with knots, bolts or other makeshift devices.
15. Never use a sling that is damaged in any way.

9. Estimating the Weight of Loads. Lifting will not be conducted until load weights have been determined. When estimating load weights operators will stay within 50% of the cranes rated capacity when estimating loads (or manufacturer recommendation). Never attempt a load lift based solely on a guess! The following methods may be used to estimate the weight of loads.

1. Check equipment nomenclature plates.
2. Check shipping papers.
3. Consult with the equipment manufacturer.
4. Estimate weight using weights of similar loads.
5. Use a dynamometer.
6. Use industry standard tables or charts.

10. Personal Protective Equipment. Supervisor will ensure that a job hazard analysis is conducted for specific lifting operations. Operators will use the required PPE in the conduct of lifting operations. Protective clothing and equipment considerations:

1. Ensure PPE is appropriate for the particular hazard(s).
2. Ensure PPE is kept clean, fully functional, and sanitary.
3. Maintain all PPE in good condition.
4. Properly store PPE when not in use.

11. Crane Inspections. Where not otherwise delineated, crane inspections will be conducted in accordance with this section.

11.1 Crane Inspections. This employer shall evaluate each work location to determine if the host employer has a program to ensure that any crane that an employee of this company may use or work in close proximity to is maintained and operated in a safe manner. Where

this determination is unclear, or in doubt, Amiano Construction employees are required to immediately halt work, exit the work area and contact the senior employee on site for further work instructions. THERE ARE NO EXCEPTIONS TO THIS POLICY.

11.2 Inspection Intervals.

11.2.1 Daily Inspections. Cranes will be inspected each day before being used, the crane will be inspected in accordance with OSHA, Consensus Standards, and manufacturer's recommendations.

11.2.2 Periodic Inspections. Supervisors will coordinate with the host employer to determine and schedule additional inspections periodically during crane use, where service conditions warrant. A thorough periodic inspection shall be made on a regular basis, to be determined on the basis of, frequency of crane use; severity of service conditions; nature of lifts being made; experience gained on the service life of cranes used in similar circumstances, and OSHA, Consensus Standards, and manufacturer's recommendations.

11.2.3 Scheduled Inspections. The host employer is required to conduct inspections at intervals at least evey 12 months. Per coordination with the host employer, AACCI reserves the right to review documentation of scheduled inspections to determine safe working conditions.

11.3 Inspection Documentation. Crane inspections must be determined as having been inspected. Scheduled inspections must be documented and include as a minimum the following information:

1. Items that were inspected.
2. Status of the inspected items.
3. Signature of the inspector.
4. Inspection date and times.

12. Daily Checks. Employees should familiarize themselves with the below criteria, they are typical of what daily checks should entail. Where safe operating conditions of the crane are in doubt, AACCI's employees are required to immediately halt work, exit the work area and contact the senior employee on site for further work instructions. THERE ARE NO EXCEPTIONS TO THIS POLICY.

The following items (as a minimum) must be checked prior to use of any crane:

1. Check for air or hydraulic fluid leakage.

2. Check for load capacity stenciling on both sides of unit.
3. Check for twisted, broken or kinked cables or chains.
4. Check the operation of the crane; controls and movement.
5. Inspect for deformed, cracked, or stretched hooks.
6. Inspect for serviceable safety latches.
7. Observe correct drum spooling as the hood is raised.
8. Operate empty hook until it actuates the upper limit switch.
9. Operate hoist and trolley brakes, ensure no excessive coasting.
10. Visually inspect all units for integrity, leaks, etc.
11. Review the manufacturer's specific requirements!

13. Monthly Checks. Employees should familiarize themselves with the below criteria, they are typical of what monthly checks should entail. Where safe operating conditions of the crane are in doubt Amiano Construction employees are required to immediately halt work, exit the work area and contact the senior employee on site for further work instructions. THERE ARE NO EXCEPTIONS TO THIS POLICY.

The following items (as a minimum) must be checked monthly:

1. Follow any additional recommendations of the manufacturer.
2. Inspect for twisted, broken or kinked cables or chains.
3. Inspect hooks for cracks, missing or broken parts.
4. Measure hooks for deformation or stretching.
5. Measure lifting chains for excessive stretch, twisting, etc.
6. Review the manufacturer's specific inspection requirements!
7. Visually inspect all critical items.
8. Review the manufacturer's specific requirements!

14. New, Idle, Altered, Used Cranes. Typically, the host employer is responsible for the following safety requirements, however, our employees should be familiar with the basic criteria. The use status of cranes will drive specific requirements for periodic maintenance and servicing. The status of the crane will be determined based on manufacturer's recommendations and consultation with specific regulatory standards. Prior to initial or reintroduction into service cranes will be tested and inspected completely using the criteria applicable to periodic inspections. A report will be generated and kept on file for future reference. The manufacturer's specific requirements will be reviewed!

15. Preventative Maintenance. Typically, the host employer is responsible for the following safety requirements, however, our employees should be familiar with the basic criteria. Preventative maintenance procedures will be developed and used for specific

cranes. Maintenance procedures will be determined on the basis of, frequency of crane use; severity of service conditions; nature of lifts being made; experience gained on the service life of cranes used in similar circumstances, and OSHA, Consensus Standards, and manufacturer's recommendations. Typical requirements include;

1. Adjusting the brakes.
2. Adjusting the operation of limit switches.
3. Checking and filling the gear cases to the proper levels.
4. Cleaning and lubricating the wire rope (cable) and load chain.
5. Cleaning or replacing pitted or burned electrical contacts.
6. Cleaning or replacing the air and fluid filters.
7. Inspecting the operation of all controls and warning systems.
8. Lubricating the bearings, gears, pinions, linkages, shafts, etc.
9. Replacing any contaminated oils.

16. Preoperational Testing Requirements. Typically, the host employer is responsible for the following safety requirements, however, our employees should be familiar with the criteria. Preoperational tests will be conducted prior to use of any crane. Testing requirements will be determined on the basis of, frequency of crane use; severity of service conditions; nature of lifts being made; experiences gained on the service life of cranes used in similar circumstances, and OSHA, Consensus Standards, and manufacturer's recommendations. Typical requirements include:

Preoperational Tests - General:
1. Check for obstructions in the travel path of the crane.
2. Check upper and lower limit switches.
3. Ensure all emergency disconnects are known before any test.
4. Ensure that the manufacturer's recommendations are followed.
5. If you have a checklist - follow it!
6. If you're not familiar with the cranes' operation get help.
7. Inspect all electrical controls for proper operation.
8. Never unwind the spool completely!
9. Observe for smooth operation of the components.
10. Test all controls to determine proper operation.

Preoperational Tests - Hook:
1. Replace if deformation or cracks are found.
2. Check for proper function of the safety latch.

3. Inspect for twists from the plane of the unbent hood.
4. Check for proper swivel.
5. Hook repair is generally not recommended.
6. Emergency hook repair must be performed only under competent supervision.
7. After any hook repairs, the hook must be load tested before being retuned to normal service.

Preoperational Tests - Rope:
1. Broken or worn outside wires.
2. Corroded or broken wires at end of connections.
3. Corroded, cracked, bent, worn, or improperly applied end connections.
4. Reduction in rope diameter (replace if found).
5. Severe kinking, crushing, cutting or unstranding.

17. Lockout Tagout Considerations. Lockout tagout will be conducted when maintenance or servicing is performed on any crane. Lockout requirements will be determined on the basis of, OSHA, Consensus Standards, and manufacturer's recommendations. Typical requirements include:

1. Review requirements for the individual crane.
2. Integrate lockout and maintenance requirements.
3. Ensure training is adequate for level of maintenance.
4. Ensure written programs are established and reviewed.
5. Carefully select lockout devices, ask the manufacturer for recommendations.
6. Do not necessarily assume devices are interchangeable between different types of cranes.

Fall Protection Program

Regulatory Standards:
OSHA 29 CFR 1910.66
OSHA 29 CFR 1910.128, 129, 130, 131
OSHA 29 CFR 1926.104
OSHA 29 CFR 1926.500

Approximately 300,000 disabling injuries occur in work related falls each year. Eighty-five percent of workers surviving falls lose time from their jobs. This poses a serious problem for exposed workers and their employer. The OSHA safety standards establish uniform requirements to make sure that the hazards elevated falls in U.S. workplaces are evaluated, and that this hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the hazards of all elevated work activities over six feet in height, that our employees are exposed to are evaluated, and that information concerning their hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating potential fall hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.
Contents of the fall protection program
1. Written program.
2. Statement of policy.
3. Worksite evaluation.
4. Training.
5. Fall hazard control procedures.
6. Protective materials and hardware.
7. Fall protection systems.
8. Inspection and maintenance.
9. Common and dangerous fall hazards.
10. Sub-contractor responsibilities.
11. Definitions.

1. Written Program. The company will review and evaluate this standard practice instruction:

- On an annual basis.
- When changes occur to 29 CFR, that prompt revision of this document.
- When there is an accident or close call that relates to this area of safety
- Review the program any time fall protection procedures fail

1.1 Scope. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of the number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives.

2. Statement of Policy. The hazards of potential falls at heights of 6 feet and above will be addressed in this document. This instruction describes a systematic approach that must be used to protect and prevent people from falling. This instruction also lists some of the most common fall hazards, and provides recommendations and guidelines for selecting fall arrest systems.

3. Worksite Evaluation. Amiano Construction provides on-site services to host employers. AACCI's employees may be required to repair, service or work in close proximity to elevated positions as part of their daily duties. Where elevated work is required at individual work sites, the senior Amiano Construction employee present on site will contact the host safety officer to discuss specific fall protection and prevention requirements established at the site. This will be accomplished prior to any elevated work performed by a AACCI employee without exception. This applies to any work site where an employee is sent to work. The workplace will be assessed before each assigned job for potential fall hazards. Where no host employer fall protection program exists, fall arrest equipment will be provided and used for jobs requiring fall protection when elimination of the hazard(s) is not possible.

4. Training. A training program will be provided for all employees who will be exposed to fall hazards in the work area, and will be conducted by competent personnel. The program will include but is not limited to:

- A description of all hazards in the work area.
- Procedures for using fall prevention and protection systems
- Equipment limitations
- The elements encompassed in total fall distance

- Prevention, control and fall arrest systems
- Inspection and storage procedures for the equipment

Generally, workers will be trained to recognize the hazards of falling from elevated work surfaces and to avoid falls from grade level to lower levels through holes or openings in walking / working surfaces. Training programs will include prevention, control and fall arrest systems.

4.1 Initial Training. Training will be conducted prior to job assignment. This employer will provide training to ensure that the purpose, function, and proper use of fall protection is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction will be provided to, and read by all employees receiving training. The training will include, as a minimum the following:

4.1.1 Types of fall protection equipment appropriate for use.

4.1.2 Recognition of applicable fall hazards associated with the work location and the work to be completed.

4.1.3 Load determination and balancing requirements.

4.1.4 Procedures for removal of protection devices from service for repair or replacement.

4.1.5 All other employees whose work operations are or may be in an area where fall protection devices may be utilized, will be instructed to an awareness level concerning hazards associated with fall protection operations.

4.1.6 Fall protection equipment identification. Fall protection equipment having identification numbers will be checked for legibility. Fall protection equipment having illegible identification markings will be turned in to the supervisor for inspection and remarking.

4.1.7 Equipment maintenance and inspection requirements.

4.1.8 Equipment donning and doffing procedures.

4.1.9 Equipment strengths and limitations.

4.1.10 Certification. This employer will certify that employee training has been

accomplished and is being kept up to date. The certification will contain each employee's name and dates of training. Training will be accomplished by competent personnel.

4.2 Refresher Training. This standard practice instruction will be provided to, and read by all employees receiving refresher training. The training content will be identical to initial training. Refresher training will be conducted on a semiannual basis or when the following conditions are met, whichever event occurs sooner.

4.2.1 Change in Job Assignment. Retraining will be provided for all authorized and affected employees whenever (and prior to) a change in their job assignments.

4.2.2 Change in Equipment or Hazards. Retraining will be provided for all authorized and affected employees whenever there is a change in the type of fall protection used, or when a known hazard is added to the work environment which affects the fall protection program.

4.2.3 Inadequacies in Employee Knowledge. Additional retraining will also be conducted whenever a periodic inspection reveals, or whenever this employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of fall protection equipment or procedures.

4.2.4 Procedure Failure. Whenever a fall protection procedure fails.

4.2.5 Proficiency and Procedures. The retraining will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.

4.2.6 Certification. This employer will certify that employee training has been accomplished and is being kept up to date. The certification will contain each employee's name and dates of training. Training will be accomplished by competent personnel.

5. Fall Hazard Control Procedures (Fall Prevention).

5.1 Control Procedures Development. Fall prevention plans will be designed by competent company individuals or other competent personnel. Safety during access and egress from elevated work locations will also be considered. The following requirements will be coordinated with the company safety officer and the host employer safety officer and will be used when planning work at elevated heights:

- Involve the company safety officer and the host employer safety officer early in the project planning / job planning so that they can recommend appropriate fall protection

measures and equipment.

- Involve qualified host employer engineers when load rating of anchorage points must be determined or is in doubt. Required training will be provided as necessary.

- Involve host employer engineering and maintenance personnel when anchorage points must be installed.

- The safety officer and host employer engineering departments will use the expertise of fall protection equipment manufacturers such as Rose Manufacturing Company, Miller Equipment Company, Research and Trading Company, and DBI / SALA, and others, where necessary to determine safety requirements for fall protection and prevention.

- This company will be specific in dealing with fall hazards when developing contracts with host employers.

5.2 Procedure Development. The following information will be used when developing fall protection procedures. The safety officer will be responsible for the implementation of these procedures. The procedures will clearly and specifically outline the scope, purpose, authorization, rules and techniques to be utilized to control fall hazards, and the means to enforce compliance including, but not limited to the following:

5.2.1 A specific statement of the intended use of the procedure.

5.2.2 A review of accident records, including OSHA 200 logs and workers' compensation documentation.

5.2.3 Interviews with employees and groups of employees whose work environment includes or may includes fall hazards.

5.2.4 Physical observations of the work environment(s) that involve fall hazards or the potential of such.

5.2.5 Observations of individuals and their job tasks and work habits that expose them to existing or potential fall hazards.

5.2.6 The procedures contained in the company fall protection program.

5.2.7 Specific procedural steps for the use and operation of body harness systems, and other fall protection systems.

5.2.8 Specific procedural steps for the placement, erection, inspection, maintenance, disassembly and transfer of fall protection systems or devices and the person(s) responsible for them.

5.2.9 Specific requirements for testing fall protection systems or equipment to determine and verify the effectiveness of the fall protection control measures (not load testing).

5.2.10 The correct procedures to rescue employees who have fallen.

5.2.11 The role of each employee in fall protection plans and applicable policies.

5.2.12 Specific requirements for testing fall protection systems or equipment.

6. Protective Materials and Hardware. Appropriate fall protection devices will be provided for potential fall hazards. Selection of the equipment will be based on the fall protection evaluation. Evaluations will be conducted by competent personnel authorized to evaluate fall protection requirements.

6.1 Selection Criteria.

6.1.1 Fall protection devices will be singularly identified; will be the only devices used for controlling falls; will not be used for other purposes; and will meet the following requirements:

6.1.1.1 Capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.

6.1.1.2 Anchor points will not deteriorate when located in corrosive environments such as areas where acid and alkali chemicals are handled and stored.

6.1.1.3 Capable of withstanding the ultimate load of 5,000 lbs. for the maximum period of time that exposure is expected.

6.1.1.4 Standardization within company facilities. Fall protection devices will be standardized whenever possible.

7. Fall Protection Systems. When fall hazards cannot be eliminated through any other means, fall arrest systems will be used to control falls. Proper training on the use of fall arrest equipment is essential and will be provided prior to use.

7.1 Full Body Harness Systems. A full body harness system consists of a full body hardness, lanyard, energy shock absorber, and self-locking snap hook.

7.2 Retractable Lifelines. A retractable lifeline is a fall arrest device used in conjunction with other components of a fall arrest system. Retractable lifelines should be used by one person at a time.

7.3 Standard Harnesses. Harnesses for general purpose work should be Class III, constructed with a sliding back D-ring. Standard harnesses are suitable for continuous fall protection while climbing, riding, or working on elevated personnel platforms. They are suitable for positioning, fall arrest, and the rescue and evacuation of people who are working at elevated heights.

8. Inspection and Maintenance. To ensure that fall protection systems are ready and able to perform their required tasks, a program of inspection and maintenance will be implemented and maintained. The following as a minimum, will comprise the basic requirements of the inspection and maintenance program:

8.1 Equipment manufacturer's instructions will be incorporated into the inspection and preventive maintenance procedures.

8.2 All fall protection equipment will be inspected prior to each use, and a documented inspection at intervals not to exceed six months, or in accordance with the manufacturer's guidelines.

8.3 The user will inspect his / her equipment prior to each use and check the inspection date.

8.4 Any fall protection equipment subjected to a fall or impact load, will be removed from service immediately and inspected by a qualified person (sent back to the manufacturer).

8.5 Check all equipment for mold, damage, wear, mildew, or distortion.

8.6 Hardware should be free of cracks, sharp edges, or burns.

8.7 Ensure that no straps are cut, broken, torn, or scraped.

8.8 Special situations such as radiation, electrical conductivity, and chemical effects will be considered.

8.9 Equipment that is damaged or in need of maintenance will be tagged as unusable, and will not be stored in the same area as serviceable equipment.

8.10 A detailed inspection policy will be used for equipment stored for periods exceeding one month.

8.11 Anchors and mountings will be inspected before each use by the user and supervisor for signs of damage.

9. Most Common and Most Dangerous Fall Hazards. Employees will not perform work in the following situations before consulting with the senior employee on site. The tasks and situations listed below present inherent fall hazards. Give special attention to providing fall prevention and / or fall control for them, remembering that this attention is necessary in the design, engineering, planning, and execution stages of work. Supervisors will give special consideration to fall protection for the following tasks:

9.1 Working from crane booms and tower cranes.

9.2 Working on top of machinery and equipment, such as overhead cranes, furnaces, conveyors and presses.

9.3 Other work that involves fall hazards, such as off-chutes from main piping in duct work or boilers.

9.4 Working on roofs, with deteriorating or unsupported sections and framing.

9.5 Working over chemical tanks or open pits.

9.6 Working from a fixed or portable ladders, or climbing systems.

9.7 Performing work on water towers, product tanks, silos, pipe racks, presses, and floor pits.

10. Sub-Contractor Responsibilities.

10.1 Where sub-contractors are used by this company in situations where fall protection is required, the host employer will be informed and consulted.

10.2 Sub-contractors must obtain any available information regarding fall hazards and

protective measures from this company and the host employer.

10.3 Sub-contractors must coordinate fall protection operations with AACCI and the host employer when both company personnel and sub-contractor personnel will be working in or near recognized fall hazard locations.

10.4 Sub-contractors must inform this company and the host employer of the fall protection program that the sub-contractor will follow and of any hazards confronted or created in conducting operations involving fall protection through a debriefing prior to initiation of work on the site.

11. Definitions.

Anchorage- a secure point of attachment for lifelines, lanyards or deceleration devices.

Body Belt- a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body Harness- straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent Person- a person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector- a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system.

Deceleration Device- any mechanism with a maximum length of 3.5 feet, such as a rope grab, ripstich lanyard, tearing or deforming lanyards, self-retracting lifelines, etceteras, which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy Shock Absorber- a device that limits shock-load forces on the body.

Failure- load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall Arrest System- a system specifically designed to secure, suspend, or assist in retrieving a worker in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free Fall Distance- the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of six feet). This distance excludes deceleration distance, and lifeline / lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline / lanyard extension before they operate and fall arrest forces occur.

Hole- a gap or void two inches or more in its least dimension, in a floor, roof, or other walking / working surfaces.

Lanyard- a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading Edge- the edge of a floor roof, or formwork for a floor or other walking / working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline- a component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which services as a means for connecting other components of a personal fall arrest system to the anchorage.

Opening- a gap or void thirty inches or more high and eighteen inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal Fall Arrest System- a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 11, 1998, the use of a body belt for fall arrest is prohibited.

Positioning Device System- a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

Qualified Person- one with a recognized degree or professional certificate and extensive knowledge and experience in the subject field who is capable of design, analysis, evaluation and specifications in the subject work, project, or product.

Retractable Lifeline- a fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope Grab- a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee.. A rope grab usually employs the principle of inertial locking, cam / level locking, or both.

Safety Monitoring System- a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

Self Retracting Lifeline / Lanyard- a deceleration device containing a drum wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

Snaphook- a connector comprised of a hook shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or

- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snaphook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard- a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking / Working Surface- any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges,

runways, formwork, and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning Line System- a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

Work Area- a portion of a walking / working surface where job duties are being performed.

Ladder Safety Program

Regulatory Standards:
OSHA 29 CFR 1910.25
OSHA 29 CFR 1910.26

Ladders are a major source of injuries and fatalities. OSHA estimates that there are approximately 25,000 injuries and as many as 35 fatalities each year due to falls from stairways and ladders. Most of these accidents can be prevented if proper safety precautions are initiated. This poses a serious problem for exposed workers and their employer. The OSHA standards governing stairs and ladders establish uniform requirements to make sure that the hazards existing in U.S. workplaces are evaluated, safety procedures implemented and that the proper hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that all potential hazards regarding ladders within our facility or job site are evaluated, and that information concerning their hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of potential hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.
Contents of the ladder safety program

1. Written program.
2. General requirements.
3. Fiberglass / wooden ladders safety policy.
4. Portable Fiberglass / wooden ladders.
5. Metal ladders safety policy.
6. Portable metal ladders.
7. Procurement and disposal of ladders.

Amiano Construction Ladder Safety Program

1. Written program.

AACCI will review and evaluate this standard practice instruction on an annual basis, or when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this company, and that outlines our goals and plans. This written program will be communicated to all affected personnel. It is designed to establish clear goals, and objectives.

2. General requirements.

AACCI will establish ladder safety and operational procedures through the use of this document. This standard practice instruction applies to ladder use. All facilities and equipment owned by this company will be maintained in a safe and healthful manner. Certain work conditions may contain a reasonable probability of injury that can be prevented by proper maintenance and supervision. AACCI will do all possible to ensure the safety of our employees. No employee will knowingly be subjected to a hazardous condition without all possible measures first being implemented.

2.1 Work site requirements: AACCI provides on site services to Host employers. Amiano employees may be required to work in close proximity to a variety of hazardous conditions as part of their daily duties. Where ladder use is required at individual work sites the senior AACCI employee present on site will contact the Host safety officer to discuss specific ladder requirements established at the site. This will be accomplished prior to any work by an AACCI employee without exception. This applies to any work site where an employee is sent to work.

2.2 Ladder safety: use of the wrong type of ladder can result in death. OSHA has very specific guidelines for use of ladders. Employees must never underestimate the seriousness of the selection and safe use of ladders.

3. Fiberglass / wooden ladders safety policy. To insure safety and serviceability the following precautions concerning the care and use of fiberglass / wooden ladder will be observed:

3.1 Care, fiberglass / wooden ladders. The following safety precautions will be observed in connection with the care of fiberglass / wooden ladders:

3.1.1 Ladders will be maintained in good condition at all times, the joint between the steps and side rails will be tight, all hardware and fittings securely attached, and the movable parts will operate freely without binding or undue play.

3.1.2 Metal bearings of locks, wheels, pulleys, etc., will be frequently lubricated.

3.1.3 Frayed or badly worn rope will be replaced.

3.1.4 Safety feet and other auxiliary equipment will be kept in good condition to insure proper performance.

3.1.5 Ladders will be inspected frequently and those which have developed defects will be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use."

3.1.6 Rungs should be kept free of grease and oil.

3.2 Use. The following safety precautions will be observed in connection with the use of fiberglass / wooden ladders:

3.2.1 Portable rung and cleat ladders will, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder will be so placed as to prevent slipping, or it will be lashed, or held in position. Ladders will not be used in a horizontal position as platforms, runways, or scaffolds.

3.2.2 Ladders for which dimensions are specified should not be used by more than one person at a time not with ladder jacks and scaffold planks where use by more than one person is anticipated. In such cases, specially designed ladders with larger dimensions of the parts should be procured.

3.2.3 Portable ladders will be so placed that the side rails have a secure footing. The top rest for portable rung and cleat ladders will be reasonably rigid and will have ample strength to support the applied load.

3.2.4 Ladders will not be placed in front of doors opening toward the ladder unless the door is blocked, locked, or guarded.

3.2.5 Ladders will not be placed on boxes, barrels, or other unstable bases to obtain additional height.

3.2.6 Ladders with broken or missing steps, rungs or cleats, broken side rails, or other faulty equipment will not be used, ladders having any of these conditions present will be destroyed and disposed of. Improvised repairs will not be made.

3.2.7 Short ladders will not be spliced together to provide long sections.

3.2.8 Ladders made by fastening cleats across a single rail will not be used.

3.2.9 Ladders will not be used as guys, braces, or skids, or for other than their intended purposes.

3.2.10 Tops of ordinary stepladders will not be used as steps.

3.2.11 On two-section extension ladders the minimum overlap for the two sections in use will be as follows:

| Size of Ladder | Overlap |
|---|---|
| Up to and including 36' | 3' |
| Over 36' up to and including 48' | 4' |
| Over 48' up to and including 60' | 5' |

3.2.12 Portable rung ladders with reinforced rails will only be used with the metal reinforcement on the under side.

3.2.13 No ladder should be used to gain access to a roof or elevated work area unless the top of the ladder is extended at least three feet above the point of support.

3.2.14 All portable rung ladders will be equipped with nonslip bases when there is a hazard of slipping. Nonslip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily, metal concrete, or slippery surfaces.

3.2.15 The bracing on the back legs of step ladders is designed solely for increasing stability and not for climbing.

4. Portable Fiberglass / Wooden Ladders. In order to insure safety under normal conditions of usage, this company will purchase and maintain portable fiberglass / wooden ladders that conform to the following minimum requirements for the construction, care, and use of common types of portable fiberglass / wooden ladders.

4.1 General Requirements.

4.1.1 Materials. All fiberglass / wooden parts will be maintained free from sharp edges

and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities.

4.1.2 Step Spacing. Must not be more than twelve inches. Steps will be parallel and level when the ladder is in position for use.

4.1.3 Side Rail Width. The minimum width between side rails at the top, inside to inside, must not be less than eleven and a half inches. From top to bottom, the side rails must spread at least one inch for each foot of length of stepladder.

4.1.4 Meat Spreaders / Locking Devices. A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open positions must be properly maintained for each stepladder. The spreader must have all sharp points covered or removed to protect the user.

4.2 Portable Stepladders. Stepladders longer than twenty feet will not be used by this company. Stepladders of one of the following types specified will be used:

4.2.1 Type 1- Industrial stepladder, three to twenty feet for heavy duty, such as utilities, contractors, and industrial use.

4.2.2 Type 2- Commercial stepladder, three to twelve feet for medium duty, such as painters, offices, and light industrial use.

4.2.3 Type 3- Household stepladder, three to six feet for light duty, such as light household use.

4.3 Portable Rung Ladders.

4.3.1 Single Ladder. Single ladders longer than thirty feet will not be used by this company.

4.3.2 Two-section Ladder. Two-section extension ladders longer than sixty feet will not be used by this company.

4.3.3 Trestle and Extension Trestle Ladder. Trestle ladders, or extension sections or base sections of extension trestle ladders longer than twenty feet will not be used.

4.4 Special Purpose Ladders.

4.4.1 Painter's Stepladder. Painter's stepladders longer than twelve feet will not be used.

4.4.2 Mason's Ladder. A mason's ladder is defined as a special type of single ladder intended for use in heavy construction work. Mason's ladders longer than forty feet will not be used.

5. Metal Ladders Safety Policy. To insure safety and serviceability the following precautions concerning the care and use of metal ladders will be observed:

NOTE: ELECTRICAL WORK IS NEVER PERMITTED WITH THE USE OF A METAL LADDER. THERE ARE NO EXCEPTIONS TO THIS POLICY.

5.1 Care and selection of metal ladders. The following safety precautions will be observed in connection with the care of metal ladders:

5.1.1 Selection. Metal ladders selected for use will never under any circumstances be used in proximity to electrically energized sources. There are no exceptions to this policy.

5.1.2 Ladders must be maintained in good usable condition at all times.

5.1.3 If a ladder is involved in any of the following, immediate inspection is necessary:

5.1.3.1 If ladders tip over, inspect ladder for side rail dents or bends, or excessively dented rungs; check all rung-to-side-rail connections; check hardware connections; check rivets for shear.

5.1.3.2 If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials. This can easily be done with a solvent or steam cleaning.

5.1.4 Ladders having defects are to be marked and taken out of service until repaired by either maintenance department or the manufacturer.

5.2 Use, metal ladders. The following safety precautions will be observed in connection with the use and care of metal ladders:

5.2.1 A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical wall equal to one-fourth the working length of the ladder.

5.2.2 Portable ladders are designed as a one-man working ladder based on a two hundred pound load.

5.2.3 The ladder base section must be placed with a secure footing.

5.2.4 The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment.

5.2.5 When ascending or descending, the climber must face the ladder.

5.2.6 Ladders must not be tied or fastened together to provide longer sections. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.

5.2.7 Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

NOTE: ELECTRICAL WORK IS NEVER PERMITTED WITH THE USE OF A METAL LADDER. THERE ARE NO EXCEPTIONS TO THIS POLICY.

6. Portable Metal Ladders.

6.1 General Requirements. Amiano Construction will purchase only ladders without structural defects or potential accident hazards such as sharp edges, burrs, etceteras. AACCI will purchase ladders meeting industrial grade specifications for specific and predetermined uses. Homemade or in-house constructed ladders will not be used.

7. Procurement and Disposal of Ladders. All procurement and disposal of ladders will be performed through or with the knowledge of the company safety officer. Ladders will be destroyed beyond use prior to disposal to prevent further use by anyone. Procurement of ladders will be accomplished based on the type of work anticipated to be performed and in accordance with this standard practice instruction and applicable OSHA regulations.

Permit Required Confined Space Entry Program

REGULATORY STANDARD: OSHA - 29 CFR 1910.146

Over 1 1/2 million workers enter confined spaces on an annual basis. Serious injury or death in a confined space can be the result of asphyxiation, engulfment, electric shock, falls, and heat stress. The Occupational Safety and Health Administration (OSHA)estimates that 85 percent of these accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The OSHA confined space standard establishes uniform requirements to ensure that the hazards of confined spaces in U.S. workplaces are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that all potential hazards regarding all potential confined spaces that our employees come into contact with are evaluated. This standard practice instruction is intended to address comprehensively the issues of potential hazards, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the AACCI Confined Space Entry Program

7. Duties of Authorized Entrants
8. Duties of Authorized Attendants
9. Duties of Entry Supervisors.
10. Rescue and Emergency Services.
11. Procedures for Atmospheric Testing.
12. Employee Involvement.

Amiano Construction Confined Space Entry Program

1. Written program.

AACCI will review and evaluate this standard practice instruction on an annual basis, or when changes occur to 29 CFR 1910.146, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Additionally, the AACCI will review the permit required confined space program, using the canceled permits retained within one year after each entry and revise the program as necessary, to ensure that employees participating in entry operations are protected from permit space hazards.

2. General requirements.

AACCI will establish confined space operational procedures through the use of this document.

2.1 Work site requirements: AACCI provides on site services to Host employers. Amiano employees may be required to repair, service or work in close proximity or enter confined spaces as part of their daily duties. Where Confined Space Entry is required at individual work sites, the senior AACCI employee present on site will contact the host safety officer to discuss specific entry requirements established at the site. This will be accomplished prior to any entry by a AACCI Employee without exception. This applies to any work site

2.2 Locations that meet the following criteria are considered to be a confined space:

2.2.1 It is large enough and so configured that an employee can bodily enter and perform assigned work.

2.2.2 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.)

2.2.3 Is not designed for continuous employee occupancy.

2.2.4 Contains or has a potential to contain a hazardous atmosphere.

2.2.5 Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

2.2.6 Contains any other recognized serious safety or health hazard.

2.3 Worksite evaluation. This employer shall evaluate each work location to determine if any work locations meet the criteria for designation as a confined space. Where this determination is unclear, Amiano Construction Company Inc. employees are required

immediately halt work, exit the work area and contact the senior employee on site for further work instructions. THERE ARE NO EXCEPTIONS TO THIS POLICY.

2.4 Confined space identification. Employees must be familiar with the following designations:

2.4.1 Permit-required confined spaces. Those spaces meeting the criteria delineated in this section and having a known potential to contain hazardous atmospheres will be designated as permit-required confined spaces. All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The host employer is required to inform exposed employees (regular or contract), by posting danger signs, conducting awareness training, or by any other equally effective means, or the existence and location of and the danger posed by the permit confined spaces. A sign reading "Danger Permit Required Confined Space, Do Not Enter" or similar language must be used to satisfy the requirement for a sign.

2.4.2 Non-permit confined spaces. Those spaces meeting the criteria delineated in this section that do not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm will be designated as non-permit confined spaces.

2.5 Confined space listing. Once a facility has been evaluated the host employer must maintain a detailed listing that permanently identifies locations meeting the criteria for a confined space.

2.6 Authorization. If Amiano Construction decides that only specific employees will enter permitted spaces, this employer shall take effective measures to prevent non-trained employees from entering the permit-required confined space.

2.7 For employees that are required to perform work in permit-required confined spaces. This employer shall coordinate with the host employer to implement the permit-required confined space entry program. The host employer written program will be available for inspection by all employees (regular and contract), their authorized representatives, and authorized government inspectors.

2.8 Non-permit required confined spaces. Non-permit required confined spaces are designated where the atmosphere and safety conditions can be controlled. Confined spaces may be entered without the need for a written permit or attendant provided that:

Condition 1. The space is determined not to be a permit-required confined space.

Condition 2. The space can be maintained in a safe condition for entry by mechanical ventilation alone. All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise.

2.9 Permit required confined space certification. AACCI shall verify that the space is safe for entry and that the measures required by a written certification permit meeting the criteria in 29 CFR 1910.146 are accomplished. This written certification will contain as a minimum; the date, the location of the space, and the signature of the person providing the certification. The certification shall be made before entry and shall be made available to each employee entering the space.

2.10 Non-permit required confined space certification. When there are changes in the use of configuration of a non-permit confined space that might increase the hazards to entrants, this employer shall have all employees exit the space until the host employer can reevaluate the space and, if necessary, reclassify it as a permit-required confined space.

2.11 Permit to non-permit reclassification. A space classified as a permit-required confined space will be reclassified as a non-permit confined space under the following conditions:

2.11.1 The host employer is responsible for the following: If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

2.11.2 The host employer is responsible for the following: If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed under the assumption that a hazard exists. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

Note: Control of atmospheric hazards through forced air ventilation alone does not constitute elimination of the hazards. Periodic monitoring will be conducted to ensure forced air ventilation maintains a safe work environment for reclassification to a non-permit confined space.

2.12 Host employer responsibilities regarding contractor operations in permitted confined spaces. When a host employer arranges to have employees AACCI perform work that involves permit space entry, the host employer must:

2.12.1 Inform our employees that the workplace contains permit spaces and that permit space entry is allowed only through compliance with the host company permit space entry program.

2.12.2 Apprise our employees of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space.

2.12.3 Apprise our employees of any precautions or procedures that the company has implemented for the protection of employees in or near permit spaces where contractor personnel will be working.

2.12.4 Coordinate entry operations with our employees, when both company personnel and contractor personnel will be working in or near permit spaces.

2.12.5 Debrief our employees at the conclusion of the entry operation regarding the company permit space program, and any hazards confronted or created in the concerned permit spaces during entry operations.

2.13 Amiano Construction's responsibilities regarding operations in permit-required confined spaces. AACCI employees who must enter a permit required confined space shall:

2.13.1 Obtain any available information regarding permit space hazards and entry operations from the host employer.

2.13.2 Coordinate entry operations with the host employer prior to entry.

2.13.3 Ensure that the host employer informs Amiano Construction employees of the hazards confronted or created in permit spaces within the facility through a debriefing prior to any entry operation.

3. Permit-Required Confined Space Program. Under the permit-required confined space program required by 29 CFR 1910.146, the host work site employer in coordination with Amiano Construction shall:

3.1 Implement the measures necessary to prevent unauthorized entry.

3.2 Identify and evaluate the hazards of permit spaces before employees enter them.

3.3 Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the following:

3.3.1 Specifying acceptable entry conditions.

3.3.2 Isolating the permit space.

3.3.3 Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

3.3.4 Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards.

3.3.5 Verify that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

3.3.6 Develop and utilize checklists based on this standard practice instruction and 29 CFR 1910.146.

3.4 Provide the following equipment at no cost to employees, maintain that equipment properly, and ensure that employees are trained in the proper use of the equipment:

3.4.1 Testing and monitoring equipment needed to determine if hazardous conditions exist or to verify that they do not exist.

3.4.2 Ventilating equipment needed to obtain acceptable air quality entry conditions.

3.4.3 Communications equipment necessary for communication between personnel involved in the entry operation.

3.4.4 Personal protective equipment insofar as feasible engineering and work practice controls do not adequately protect employees.

3.4.5 Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.

3.4.6 Barriers and shields as required to protect workers from pedestrian, and vehicular traffic.

3.4.7 Ladders, needed for safe ingress and egress by authorized entrants.

3.4.8 Rescue, retrieval, and emergency equipment needed to extract or treat injured personnel, except to the extent that the equipment and or service is provided by rescue services that are immediately available.

3.4.9 Any other equipment necessary for safe entry into and rescue from permitted spaces at our facility.

3.4.10 Principal equipment needed to conduct confined space operations. The below listed intrinsically safe equipment as a minimum will be available where required for confined space operations.

1. Multi-gas monitors
2. Ventilation equipment
3. Rescue tripod / davit arm and winch system
4. Body harness
5. Extraction cable and lanyards
6. Air compressors (as required)
7. Supplied air respirators (as required)
8. Air purifying respirators (as required)
9. SCBA equipment (as required)
10. Emergency escape breathing apparatus (as required)
11. Radio communication system (as required)
12. Signage (as required)
13. Lockout / tagout equipment (as required)
14. Intrinsically safe lighting equipment
15. Personal protective clothing
16. Hearing protection equipment
17. Head protection equipment
18. Eye protection equipment
19. First aid kits
20. Time keeping equipment
21. Hand tools
22. Escape ladders for depths of four feet or shoulder height

3.5 Evaluation of Permitted Space Conditions. Amiano Construction requires that all relevant safety information pertaining to confined spaces that our employees might enter be provided in order to ensure that safe work and entry procedures are followed. The host employer company must evaluate permit space conditions before entry operations are conducted. The following criteria as a minimum must be met before AACCI's employees are permitted to perform work:

3.5.1 Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing shall be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the area where authorized entrants are working.

3.5.2 Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.

3.5.3 When testing for atmospheric hazards, use the following protocol; first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors.

Note: Atmospheric testing must be conducted in accordance with the "procedures for atmospheric testing" in Appendix B to 29 CFR 1910.146.

Note: Single annual reviews covering all entries performed by the host employer during a twelve month period will be accomplished in accordance with 26 CFR 1910.146. Amiano Construction reserves the right to review annual entry data for the protection of its employees.

4. Permit System. To comply with the permit system required by 29 CFR 1910.146, AACCI shall ensure the following is accomplished in coordination with the host employer:

4.1 Before entry is authorized, document the completion of the following measures:

4.1.1 Specifying acceptable entry conditions.

4.1.2 Isolating the permit space.

4.1.3 Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

4.1.4 Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards.

4.1.5 Verify that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

4.1.6 Develop and utilize checklists based on this standard practice instruction and 29

CFR 1910.146.

4.2 Before entry begins, the entry supervisor indentified on the permit shall sign the entry permit to authorize entry.

4.3 The completed permit shall be made available at the time of entry to all authorized entrants, by posting it at the entry portal or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed.

4.4 The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit.

4.5 The entry supervisor shall terminate entry and cancel the entry permit when:

4.5.1 The entry operations covered by the entry permit have been completed.

4.5.2 A condition that is not allowed under the entry permit arises in or near the permit space.

4.6 This employer shall retain copies of each canceled entry permit for at least one year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

5. Entry Permit. This company shall develop or use a standardized entry permit form supplied by the host employer that documents compliance with this section and authorizes entry to a permit space. As a minimum the permit in use shall identify the following:

5.1 The permit space to be entered.

5.2 the purpose of the entry.

5.3 The date and the authorized duration of the entry permit.

5.4 The authorized entrants within the permit space, by name or by such other means (for example, through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space. If a tracking system is used for certain entries this requirement may be met by inserting a reference on the entry permit as to the means used, such as a roster or tracking system, to keep track of the authorized entrants within the permit space.

5.5 The personnel, by name, currently serving as attendants.

5.6 The individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry.

5.7 The hazards of the permit space to be entered.

5.8 The measures used to isolate the permit space and to eliminate or control permit space hazards before entry. Such as; the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces.

5.9 The acceptable entry conditions.

5.10 The results of initial and periodic atmospheric tests performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed.

5.11 The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services.

5.12 The communication procedures used by authorized entrants and attendants to maintain contact during the entry.

5.13 Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with the permit requirement.

5.14 Any other information whose inclusion is necessary, given the circumstances of the particular confined space, in order to ensure employee safety.

5.15 Any additional permits, such as for hot work, that have been issued to authorize work in the permit space.

5.16 This employer shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this section.

6. Training. This company shall develop a standardized training format to meet the requirement for a safe confined entry.

6.1 Training shall be provided to each affected employee:

6.1.1 Before the employee is first assigned duties that require a confined space entry.

6.1.2 Before there is a change in assigned duties.

6.1.3 Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained.

6.1.4 Whenever this employer has reason to believe that there are deviations from the permit space entry procedures required by this instruction or inadequacies in the employee's knowledge or use of these procedures.

6.2 The training shall establish employee proficiency in the duties required by this instruction and shall introduce new or revised procedures, as necessary, for compliance with this instruction or when future revisions occur.

6.3 This employer shall certify that the training required by this section has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

7. Duties of Authorized Entrants. This employer shall ensure that all authorized entrants:

7.1 Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.2 Properly use equipment as required by 29 CFR 1910.146 paragraph (d)(4).

7.3 Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required by this section.

7.4 Alert the attendant whenever:

7.4.1 The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.

7.4.2 The entrant detects a prohibited condition.

7.5 Exit from the permit space as quickly as possible whenever:

7.5.1 An order to evacuate is given by the attendant or the entry supervisor.

7.5.2 The entrant recognizes any warning sign or symptom or exposure to a dangerous situation.

7.5.3 The entrant detects a prohibited condition.

7.5.4 An evacuation alarm is activated.

8. Duties of Authorized Attendants. This employer shall ensure that each confined space attendant employed by either the Host employer or Amiano Construction.

8.1 Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

8.2 Is aware of possible behavioral effects of hazard exposure in authorized entrants.

8.3 Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under this section accurately identifies who is in the permit space.

8.4 Remains in a pre-designated location outside the permit space during entry operations until relieved by another attendant.

8.5 Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.

8.6 Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions.

8.6.1 If the attendant detects a prohibited condition.

8.6.2 If the attendant detects the behavioral effects of hazard exposure in an entrant.

8.6.3 If the attendant detects a situation outside the space that could endanger the entrants.

8.6.4 If the attendant cannot effectively and safely perform all the duties required under this section.

8.7 Summon rescue and other emergency services as soon as the attendant determines that entrants may need assistance to escape from permit space hazards.

8.8 Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:

8.8.1 Warn the unauthorized persons that they must stay away from the permit space.

8.8.2 Advise the unauthorized persons that they must exit immediately if they have entered the permit space.

8.8.3 Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

8.9 Performs non-entry rescues as specified by this employer's rescue procedure.

8.10 Performs no duties that might interfere with the attendant's primary duty to monitor and protect the entrants.

9. Duties of Entry Supervisors. This employer shall ensure that each confined space entry supervisor employed by either the Host employer of Amiano Construction.

9.1 Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

9.2 Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

9.3 Terminates the entry and cancels the permit as required in accordance with the "permit section" this instruction.

9.4 Verifies that rescue services are available and that the means for summoning them are operable.

9.5 Ensures removal of unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

9.6 Determines, whenever responsibility for a permit space entry operation is transferred

and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

10. Rescue and Emergency Services. The following requirements apply:

10.1 Confined space rescue is beyond the scope of this employers' capabilities.

10.2 Amiano Construction requires that the Host employer provide rescue services in accordance with 29 CFR 1910.146. The senior employee on site will coordinate with the Host employer to ensure that adequate rescue services are provided during entry operations by our employees. This action will be accomplished before the initiation of any confined space operations. **THERE ARE NO EXCEPTIONS TO THIS POLICY.**

11. Procedures for Atmospheric Testing.
The Host employer will provide entrants an opportunity to observe any testing of a space prior to entry or subsequent to entry. Atmospheric testing for confined space entry is required for two distinct purposes: Evaluation of the hazards of the permit space and verification that acceptable entry conditions for entry into that space exist.

11.1 Evaluation Testing. This company will ensure that the atmosphere of a confined space is analyzed using equipment of sufficient sensitivity and specifically to identify and evaluate any hazardous atmospheres that may exist or arise. This is required to ensure that appropriate permit entry procedures specific to the operation can be developed and acceptable entry conditions stipulated for that specific space. Evaluation and interpretation of these data, and development of the entry procedure, will be done by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, or certified industrial hygienist, registered safety engineer, certified safety professional, certified marine engineer etc.) based on evaluation of all serious hazards. The internal atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

| | |
|---|---|
| (1) Oxygen content. (19.5% - 23.5%) | OSHA Mandated |
| (2) Flammable gases and vapors. | OSHA Mandated |
| (3) Potential toxic air contaminants. | OSHA Mandated |
| (4) Airborne combustible dusts. | Site Specific |

11.2 Verification Testing. The atmosphere of a permit space which may contain a hazardous atmosphere will be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry

conditions. Results of testing (i.e., actual concentration, etc.) will be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition. The atmosphere will be verified, with a calibrated direct-reading instrument, for the following conditions in the order given:

| | |
|---|---|
| (1) Oxygen content. (19.5% - 23.5%) | OSHA Mandated |
| (2) Flammable gases and vapors. | OSHA Mandated |
| (3) Potential toxic air contaminants. | OSHA Mandated |
| (4) Airborne combustible dusts. | Site Specific |

11.3 Duration of Testing. Measurement of values for each atmospheric parameter will be made for at least the minimum response time of the test instrument specified by the manufacturer.

11.4 Testing Stratified Atmospheres. When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope will be tested a distance of approximately 4 feet (1.22 m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress will be slowed to accommodate the sampling speed and detector response. The stratified atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

| | |
|---|---|
| (1) Oxygen content. (19.5% - 23.5%) | OSHA Mandated |
| (2) Flammable gases and vapors. | OSHA Mandated |
| (3) Potential toxic air contaminants. | OSHA Mandated |
| (4) Airborne combustible dusts. | Site Specific |

12. Employee Involvement in the Confined Space Program. 29 CFR 1910.146 Requires that employers consult with their employees regarding the employers efforts in the development and implementation of the confined space program. The standard also requires us to train and educate our employees and to inform affected employees of the findings from incident investigations conducted under the confined space program. It is our company policy that not only will we consult with our employees regarding efforts to develop, implement and maintain the confined space program, but we will, wherever possible, integrally involve our employees in the entire process. This is essential because employees of this company comprise the best determination of confined space operational procedures, and solutions to confined space operations problems peculiar to our business.

Powered Industrial Trucks Program

Regulatory Standards:
OSHA 29 CFR 1910.179

Accidents resulting from powered industrial truck operation can result in severe personal injury or death, major property damage and major damage to company products. This poses a serious problem for exposed workers and their employer. The OSHA powered industrial trucks standard establishes uniform requirements to make sure that the hazards associated with the use of powered industrial trucks are evaluated, and that this hazard information and training is transmitted to all affected workers.

Anthony Amiano Construction Company, Inc. is a commercial construction general contractor. We provide quality on-site services primarily in commercial construction to our customers. AACCI will ensure that the requirements of the OSHA standard for powered industrial trucks will be adhered to. This standard practice instruction is intended to address comprehensively the issues of; employee training, authorization, safety requirements, and general operation of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks used by our employees.

The company safety officer is Anthony Amiano. He is solely responsible for all facets of this program, and has full authority to make necessary decisions to ensure success of the program. The safety officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Contents of the powered industrial trucks program
1. Written program. Development and maintenance of a written powered industrial trucks program.

2. Training program. Development and implementation of the employee training program regarding; authorization, use, operator maintenance, and associated hazards.

3. Operations program. Development and implementation of the operations program regarding; authorization, use, operator maintenance, and associated hazards.

4. Configuration program. Development and implementation of the vehicle configuration program regarding; modifications or additions to vehicles which affect capacity and safe operation.

Amiano Construction Powered Industrial Trucks Program

1. Written program.
AACCI will review and evaluate this standard practice instruction when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this company, and that outlines our goals and plans. This written program will be communicated to all affected personnel. It is designed to establish clear goals, and objectives.

1.1 Work site requirements: AACCI and Host employer written procedures will be established as required. AACCI employees may be required to operate, repair, service or work in close proximity to powered industrial trucks (PIT) as part of their daily duties. This applies to any work site where an employee is sent to work. Where use or operation of a PIT is required at individual work sites, the senior Amiano Construction employee present on site will contact the Host safety officer to discuss specific requirements established at the site. This will be accomplished prior to any entry by Amiano Construction employee without exception. This applies to any work site where an employee is sent to work.

1.2 Host employer written program. Amiano Construction employees may be required to review and adhere to the Host employer powered industrial truck program.

2. Training program. Operator training. Only trained and authorized operators shall be permitted to operate a powered industrial truck. All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. Employees will be trained in accordance with the following guidelines.

2.1 The company safety officer, individual supervisor, or select trainers, (once trained) will have the authority to provide training on the operation of powered industrial trucks.

2.2 Employees of Amiano Construction will not operate a powered industrial truck (PIT) unless they have received training in accordance with this standard practice instruction and 29 CFR 1910.178.

2.3 Personnel rotated within the company will have their training verified prior to being allowed to operate a PIT.

2.4 Employee personnel records will be annotated with the date, title, and specifics of said training.

2.5 Any employee who refuses such training will not be permitted to operate a PIT.

2.6 Trainees may operate a powered industrial truck only:

2.6.1 Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and

2.6.2 Where such operation does not endanger the trainee or other employees.

2.7 Retraining shall be provided for all operators. Refresher training in relevant topics shall be provided to the operator when:

2.7.1 The operator has been observed to operate the vehicle in an unsafe manner.

2.7.2 The operator has been involved in an accident or near-miss incident;

2.7.3 The operator has received an evaluation that reveals that the operator is not operating the truck safely;

2.7.4 The operator is assigned to drive a different type of truck; or

2.7.5 A condition in the workplace changes in a manner that could affect safe operation of the truck.

2.7.6 Every three years.

2.8 Avoidance of Duplicative Training. If an operator has previously received training in a topic specified in paragraph 29 CFR 1910.178, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

2.9 Retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

2.10 Certification. This employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training and any other information as required.

3. Operations Program.

3.1 Trucks shall not be driven up to anyone standing in front of a fixed object.

3.2 No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

3.3 Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

3.4 Arms or legs are prohibited from being placed between the uprights of the mast or outside the running lines of the truck.

3.5 When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls will be neutralized, power shut off, and brakes set. Wheels will be blocked if the truck is parked on an incline.

3.5.1 A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

3.5.2 When the operator is dismounted and within 25 ft. of the truck still in his view, the load engaging means will be fully lowered, controls neutralized, and the brakes set to prevent movement.

3.6 A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks will not be used for opening or closing freight doors.

3.7 Brakes will be set and wheel blocks in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semitrailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars will be checked for breaks and weakness before they are driven onto.

3.8 The operator will ensure sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc. before operating the vehicle in these areas.

3.9 An overhead guard will be used as protection against falling objects. It should be

noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.

3.10 A load backrest extension will be used whenever necessary to minimize the possibility of the load of it from falling rearward.

3.11 Only approved industrial trucks will be used in hazardous locations.

3.12 Whenever a truck is equipped with vertical only, or vertical and horizontal controls elevatable with the lifting carriage or forks for lifting personnel, the following additional precautions will be taken for the protection of personnel being elevated.

3.12.1 Use of a safety platform firmly secured to the lifting carriage and / or forks.

3.12.2 Means shall be provided whereby personnel on the platform can shut off power of the truck.

3.12.3 Such protection from falling objects as indicated necessary by the operating conditions will be provided.

3.13 Fire aisles, access to stairways, and fire equipment will not be obstructed at any time.

3.14 General Requirements. Operators:

3.14.1 Will obey site speeds and other traffic regulations at all times.

3.14.2 Will operate loaded trucks with forks no more than 6 - 8 inches above the ground, with the load carried low and tilted back.

3.14.3 Will not raise or lower loads while moving.

3.14.4 Will not carry anything on the overhead guard.

3.14.5 Will use all plant / site observation mirrors.

3.14.6 Will ensure vehicle sound / illuminated warning devices are operational.

3.14.7 Will yield right of way to pedestrians, emergency vehicles, and avoid pedestrian lanes.

3.14.8 Will drive cautiously on uneven or slippery surfaces.

3.14.9 Will ensure the load is pointed uphill where the gradient is greater than 10 percent.

3.14.10 Will ensure the fire protection equipment is carried with the vehicle and is in proper working order.

3.15 Prestart Requirements. Operators:

3.15.1 Will verify that all brakes, controls, gauges, lights, seat belts, and routine operational features are in proper working order. They shall be examined before and after each shift. Defects when found shall be immediately reported and corrected.

3.15.2 Will remove the truck from service any time it is found to be in need of repair, defective, or in any way unsafe, the truck will be taken out of service until it has been restored to safe operating condition.

3.15.3 Will check for leaks and perform necessary operator maintenance before starting vehicle.

3.15.4 Will report deficiencies to maintenance or the site safety officer.

3.15.5 Will ensure they know the load capacity and stay within it.

3.15.6 Will be cognizant of the planned route and aware of areas with inadequate headroom, lighting, obstructions, and floor surface problems.

3.15.7 Will wear the same level of personal protective equipment as the personnel they are directly working with.

3.15.8 Will not engage in stunt driving or horseplay.

3.15.9 Will slow down for wet and slippery floors.

3.15.10 Will properly secure dockboard or bridgeplates before they are driven over. Dockboard or bridgeplates will be driven over carefully and slowly and their rated capacity never exceeded.

3.15.11 Will approach any elevators slowly, and then enter squarely after the elevator car

is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set until the desired level is reached.

3.15.12 Motorized hand trucks must enter elevators or other confined areas with load end forward.

3.15.13 Running over loose objects on the roadway surface shall be avoided.

3.15.14 While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

3.15.15 Will use extreme care tilting the load forward of backward, particularly when high tiering. Tilting forward with load engaging means elevated, shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

3.16 Loading / Unloading Requirements. Operators:

3.16.1 Will ensure load is within the trucks rated capacity.

3.16.2 Will place load squarely on forks until load touches carriage.

3.16.3 Will ensure load is stable and centered on forks, and stack or tie loose or uneven loads (or ensure proper personnel accomplish this prior to loading).

3.16.4 Will secure the vehicle when not in use to prevent unauthorized personnel from operating the vehicle.

3.16.5 Will tilt the mast back to lift load.

3.16.6 Will proceed straight into trailers or railcars to load / unload.

3.16.7 Will ensure if loading / unloading onto trucks that the wheels are chocked, brakes are engaged, and loading platform is positioned properly.

3.16.8 Will ensure if loading / unloading onto or from racks the proper safe weight or height-to-load ratio is maintained.

3.16.9 Will ensure if loading / unloading onto or from stacked materials the proper safe weight or height-to-load ratio is maintained.

3.17 Parking Requirements. Operators:

3.17.1 Must select flat parking surfaces, away from traffic where the vehicle does not block, doors, pedestrian routes, aisles, exits, etc.

3.17.2 Must not leave a truck unattended or be more than 25 feet from the vehicle without:

3.17.2.1 Fully lowering load-engaging means, neutralizing controls, shutting off power, setting the brakes, and removing the keys.

3.17.2.2 Blocking the wheels if parked on an incline.

3.18 Refueling Requirements. Operators:

3.18.1 Refuel only in assigned, ventilated areas containing no ignition sources.

3.18.2 Turn off engine.

3.18.3 Have fire suppression and cleanup equipment available.

3.18.4 Extinguish smoking materials.

3.18.5 Use acid-resistant material-handling equipment and wear corrosion-resistant PPE during battery charging / changing.

3.18.5.1 Remove battery cap slowly and leave open.

3.18.5.2 Pour acid into water, not water into acid.

3.18.6 Follow the vehicle manufacturer's instructions for gas or propane fueling.

3.18.7 Never use open flame to check fuel level.

3.18.8 Try to prevent spills, clean any spills promptly, replace fuel cap before starting or moving vehicle.

3.18.9 Take empty propane tanks to an authorized compressed gas container disposal /

storage area and follow company policy for disposal / storage.

3.19 Spilled Electrolyte. Use appropriate clean up facilities for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.

3.20 Battery Maintenance Requirements. A conveyor, overhead hoist, or equivalent material handling equipment shall be provided and used for handling batteries. Reinstalled batteries shall be properly positioned and secured in the truck. A carboy tilter or siphon shall be provided for handling electrolyte. When charging batteries, acid shall be poured into water; water shall not be poured into acid. Trucks shall be properly positioned and brake applied before attempting to change or charge batteries. Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat. Smoking shall be prohibited in the charging area. Precautions shall be taken to prevent open flames, sparks, or electric arcs in battery charging areas. Tools and other metallic objects shall be kept away from the top of uncovered batteries.

4. Configuration Program.

4.1 No modifications or additions which affect capacity and safe operation shall be performed without the manufacturer's prior written approval. Capacity, operation, maintenance instruction plates, tags, or decals shall be changed accordingly.

4.2 If the truck is equipped with front-end attachments other than factory installed attachments, the truck will be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.

4.3 All nameplates and markings will be verified as being in place and maintained in a legible condition.

4.4 When it is needed to determine a proper configuration to purchase a powered industrial truck, Amiano Construction will adhere to the following guidelines. The atmosphere or location where the truck will be used will have to be classified as to whether it is hazardous or nonhazardous prior to the consideration of the type industrial truck to be purchased. 29 CFR 1910.148 and the proposed manufacturer should be consulted to determine the most suitable vehicle. The following is a list of designation types.

4.4.1 D designated units are diesel powered units.

4.4.2 DS designated units are diesel powered units that are provided with additional safeguards to the exhaust, fuel and electrical systems.

4.4.3 The DY designated units are diesel powered units that have all the safeguards of the DS units and in addition do not have any electrical equipment including the ignition and are equipped with temperature limitation features.

4.4.4 The E designated units are electrically powered units that have minimum acceptable safeguards against inherent fire hazards.

4.4.5 The ES designated units are electrically powered units that, in addition to all of the requirements for the E units, are provided with additional safeguards to the electrical system to prevent emission of hazardous sparks and to limit surface temperatures. They may be used in some locations where the use of an E unit may not be considered suitable.

4.4.6 The EE designated units are electrically powered units that have, in addition to all the requirements for the E and ES units, the electric motors and all other electrical equipment completely enclosed. In certain locations the EE unit may be used where the use of an E and ES unit may not be considered suitable.

4.4.7 The EX designated units are electrically powered units that differ from the E, ES, or EE units in that the electrical fittings and equipment are so designated, constructed and assembled that the units may be used in certain atmospheres containing flammable vapors or dusts.

4.4.8 The G designated units are gasoline powered units having minimum acceptable safeguards against inherent fire hazards.

4.4.9 The GS designated units are gasoline powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems. They may be used in some locations where the use of a G unit may not be considered suitable.

4.4.10 The LP designated unit is similar to the G unit except that liquefied petroleum gas is used for fuel instead of gasoline.

4.5 Organic Atmospheres. Power-operated industrial trucks operated by this company shall not be used in atmospheres containing hazardous concentration of acetylene, butadiene, ethylene oxide, hydrogen (or gases or vapors equivalent in hazard to hydrogen, such as manufactured gas), propylene oxide, acetaldehyde, cyclopropane, diethyl ether, ethylene, isoprene, or unsymmetrical dimethyl hydrazine (UDMH). See table N-1,CFR

1910.178.

4.6 Metal Dust Atmospheres. Power-operated industrial trucks shall not be used in atmospheres containing hazardous concentrations of metal dust, including aluminum, magnesium, and their commercial alloys, other metals of similarly hazardous characteristics, or in atmospheres containing carbon black, coal or coke dust except approved power-operated industrial trucks designated as EX may be used in such atmospheres. See table N-1, 29 CFR 1910.178.

4.7 Other Hazardous Atmospheres. Power-operated industrial trucks used by this company shall be used only in areas approved for their use. Operating areas shall be evaluated for hazards prior to operations in these areas are approved.

# ADDITIONAL SAFETY & PROCEDURE MANUALS:

## Barecat Self Propelled Elevating Work Platform Operating Manual

## Anthony Amiano Construction Company, Inc. Orientation & Procedures for Subcontractor Personnel