



Michigan Conveyor Manufacturers Association Safety Partnership



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MICHIGAN CONVEYOR MANUFACTURERS ASSOCIATION

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Michigan Conveyor Manufacturers Association

Safety Mission

The contractor members of the Michigan Conveyor Manufacturers Association (MCMA), in partnership with affected skilled-trades and owners, are committed to providing a safe work environment. This partnership was created to protect our employees and members by ensuring consistency of higher standards of safety by all members of the MCMA.

Objectives:

- To demonstrate a commitment to the safety of all contractor and subcontractor employees.
- To ensure consistent safety and disciplinary requirements for MCMA contractors and their subcontractors.
- To eliminate conflicting requirements among skilled-trades employed by MCMA contractors and their subcontractors.
- To unify all owner safety requirements and expectations into a single set of requirements.

Note: These safety requirements are in addition to and not meant to replace any Federal or State safety requirements.

Disciplinary Policy

Scope: This disciplinary policy applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while employed at an MCMA job site. All disciplinary actions resulting in suspension will be reported to the appropriate local union representative(s), and those employees receiving discipline will not be allowed to work for any MCMA contractor while the suspension is in effect.

Class A: Violations likely to result in death or serious physical harm.

First offense: Removal from all MCMA member jobsites for 7 consecutive calendar days with no layoff.

Second offense: Removal from all MCMA member jobsites for 180 consecutive calendar days with no layoff.

Third offense: Permanent termination from all MCMA member jobsites.

- Exposure to falls of six feet or more without protection.
- Unauthorized entry into a confined space.
- Unauthorized removal of a lockout device.
- Failure to use proper lockout.
- Trenching/excavation violations likely to result in death or serious physical harm.
- Other violations likely to result in death or serious physical harm.

Class B: Violations that could potentially result in injury or property damage.

First Offense: Documented Verbal Warning

Second Offense: Written Warning with 1 day off with no layoff

Third Offense: Written Warning with 7 days off with no layoff

Fourth Offense: Written Warning with 180 days off with no layoff

- Failure to use required personal protective equipment (PPE).
- Working or traveling in any type of aerial lift without a permit or without a tie off.
- Use of a power tool without proper guards.
- Welding or cutting without a fire watch, a fire extinguisher, or a hot work permit when required.
- Failure to use a GFCI while using electrical powered tools.
- Failure to inspect and/or follow safe operating practices for equipment.
- Ignoring or removing safety barricades and/or tape.
- Smoking in non-smoking areas.
- Failure to comply with OSHA and/or ANSI rigging standards.
- Failure to promptly inform supervision of an accident, injury, or near miss.
- Improper use or set-up of ladders.
- Tampering with safety devices such as: governors, back-up or motion alarms, etc.
- Any other violations that could potentially result in injury or property damage.

Aerial Lift Safety

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while working with “equipment”, defined as Aerial lifts used in the course of construction work. This will include but is not be limited to: all aerial, articulating and/or extendable booms, and scissor lifts.

Inspections

At the beginning of each shift, the Aerial Lift Operator (Operator) must perform a visual inspection and functional test of the Aerial Lift he/she will be using in accordance with the manufacturer’s recommendations. They must document the results of each inspection and test, and affix a copy of the results to the Aerial Lift for the entire shift of use.

Pre-Task Planning

A pre-task plan is required for work using Aerial Lifts.

Operation

The Operator of any Aerial Lift must be trained on the equipment in accordance with the recommendations of the manufacturer of the equipment and be aware of, and not exceed, the rated load capacity and other limitations of the equipment.

The Operator must inspect all routes of travel, and the work areas for potential hazards. Hazards could include those created by others, building equipment, or hazards created by the Aerial Lift itself. The use of a spotter is required when the Operator’s view is obstructed as when traveling with the basket in the down position. Whenever possible, designated aisle ways will be used for travel from one location to another.

The Operator must make sure a key is available at the ground controls.

The Operator must turn off all Aerial Lifts when not occupied.

Fall Protection

Operators and passengers must use a personal fall arrest system while using any Aerial Lift. The lanyard must be secured to an anchorage location on the equipment that has been identified and certified by the manufacturer.

If it is necessary for the worker(s) to exit and/or enter the lift while elevated, the worker must remain tied off to the first anchor point until they tie off to the second anchor point. At that time they can disconnect from the first anchor point. This is 100% fall protection.

Aerial Lift, Ground Person

The Employer must designate a person on the ground and in the general vicinity of the Aerial Lift while being operated who is adequately trained and capable of operating the emergency ground level controls, summoning help in an emergency and performing assigned duties as determined and contained in the pre-task plan. Performance of these responsibilities does not preclude assigning the designated ground person additional duties, such as monitoring more than one lift, maintaining barricades, or deterring unauthorized entry to the extent they do not interfere with performance of ground person responsibilities.

The Ground Person must be aware of and capable of performing all of the following duties:

- Ensure the aerial lift inspection is completed prior to anyone going up in the lift.
- Double check load limit/capacity
- Make sure a key is available at the ground controls
- Know how to operate the ground controls and make sure they work
- Communicate – keep making contact
- Watch for pinch points and obstacles.
- Ensure the area is free of obstructions and suitable for lift operations
- When escorting, stay in sight of the Operator and ensure a clear path
- Ensure proper barricading and signage is in place
- Warn people entering the area of overhead work
- Tools/materials are properly handed off – no tossing or throwing
- If diapers are required, they are in place and in good condition
- Grounding straps (if provided) stick through the diaper and drag the ground
- Ensure workers in the lift are properly tied off.

Barrier Design and Placement

Where the pre-task plan calls for barriers, the barriers are to be designed and be substantial enough to deter the entry of unauthorized personnel into the hazard area. To comply with the intent of a substantial barrier, it must deter personnel from going under, walking over or walking through the barrier without first having to remove it.

The barriers must be set up around the perimeter of the potentially hazardous work area, at a distance sufficient to protect people outside the perimeter of the work area.

Signs

Signs must be placed at all barricade entrances denoting any special requirements pertaining to the work being performed such as; DANGER Overhead Work, Authorized Personnel Only, Hard Hats Required in this Area, No Smoking, etc.

Cell Phones

Scope: Cell phone use can distract from working safely and productively. The following policy applies to all MCMA employees, members, and subcontractors.

1. Personal cell phone use is limited to lunch time only.
2. Use of business cell phones should not interfere with jobsite safety.
3. When talking on phones or radios you should be in a designated safe area.
4. Use of cell phones on jobsites while driving a vehicle is prohibited.
5. Use of cell phones on jobsites while operating equipment is prohibited.
6. There should be nothing in your ears except hearing protection.

Compressed Gas Cylinders

Scope: This standard applies to all MCMA contractor, member, and subcontractor employees that utilize portable compressed gas cylinders.

Storage

All compressed gas cylinders including but not limited to Propane, Oxygen, and Acetylene shall be stored at least 50 feet away from any customer building within an area that is well-ventilated and protected from traffic and/or falling material.

Oxygen and flammable gas cylinders shall be stored at least twenty feet apart or be separated by a one-hour burn barrier.

Compressed gas and/or liquid cylinders shall be fastened securely in an upright position with valves closed and safety caps in place when not in use. Exception: Propane cylinders that are designed for horizontal operation can be used and stored horizontally.

All compressed gas cylinder storage areas shall be properly placarded. For example: NO SMOKING, FLAMMABLES, FULL/EMPTY CYLINDERS, etc.

Fire extinguisher must be provided between 25 and 75 feet from storage areas.

Transport

All cylinders being transported shall be fastened securely in an upright position with valves closed and safety caps in place.

All compressed gas cylinders shall be transported on an appropriate platform (cage, cart, rack, etc.).

Use

During use, cylinders shall be securely fastened in an upright position on an appropriate platform.

Torch set-ups shall be equipped with Flash Back Arrestors installed at both ends of the hose.

When changing fuel cylinders a minimum distance of 50 feet shall be maintained from all hot work.

General

Personnel using or changing fuel cylinders shall be trained in safe practices.

Empty cylinders will be marked as such and taken to the storage area.

Empty cylinders shall not be secured to building columns, fences etc.

Only approved hoses and fittings shall be used to connect a cylinder to tools and equipment.

Use soapy water to check for leaks in a compressed gas or liquid cylinder or hose. Never use a match, torch or greasy gloves or rags. Leaky equipment shall immediately be tagged out and removed from service.

Confined Spaces

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, where work involves entry into a designated "Confined Space". **This requirement is not a confined space program and does not replace the contractor or owner's confined space program.**

Definitions

A **confined space** is defined as a space that,

- is large enough and so configured that a person can bodily enter and perform assigned work; and
- has limited or restricted means for entry or exit (for example, tanks, vessels, tunnels, silos, storage bins, hoppers, vaults, and pits, etc., are spaces that may have limited means of entry); and
- is not designed for continuous worker occupancy

A **permit required confined space** meets all of the above and has one or more of the following characteristics

- contains, or has potential to contain, a hazardous atmosphere
- contains a material with the potential for engulfment
- is constructed to make it possible to be trapped or asphyxiated by inwardly converging walls or because floor slopes downward and tapers to a smaller cross-section
- contains any other recognized, or potentially serious, safety or health hazard

A **Qualified person** is "one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project".

Three (3) Types of Confined Spaces

Entry into any of these types of confined spaces shall be per the Contractor's or Owner's written Confined Space Entry Program.

- 1. Permit Required Confined Space:** Entry into this type of confined space requires a permit.
- 2. Non-Permit Required Confined Space:** Entry into this type of confined space does not require a permit.
- 3. Reclassified Permit Required Confined Space:** Entry into a permit required confined space without a permit when no atmospheric hazard is present, and the physical / mechanical hazards have been eliminated. Reclassification of a Permit Required Confined Space must be performed by a Qualified Person.

Pre-Task Planning

The pre-task plan must identify the qualified person.

The qualified person shall evaluate the space and determine appropriate safe work practices. These shall be detailed in the pre-task plan and/or on the confined space entry permit if applicable.

Training

Training is required for all personnel working as confined space entrants, attendants, and supervisors.

Conveyor Start Up and Shutdown Procedure

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, engaged in both the planning and execution of conveyor startup and/or shut down activities.

Prior to implementing this procedure all affected personnel will be notified of conveyor start-up readiness. This will be accomplished through Progress Meetings, Tool Box Talks, Safety Committees, etc.

To Start-up the Conveyor

1. The designated superintendent or start-up team will walk the conveyor path completely.
 - Signs will be posted at frequent intervals and in areas where personnel can cross the conveyor path.
 - Look for personnel working on or near the conveyor and alert them that the conveyor will be running.
 - Use the personnel that you have alerted to warn others
 - Remove any obstructions, like ladders, power or welding cords across the conveyor.
2. Close the main disconnect on the drive, sequence and remote panel.
3. Close the brake and motor disconnect.
4. Reset all panel mounted Emergency Stops by pulling out the red mushroom push button on the drive, sequence, and remote panel.
5. Depress the **Control Power On** push button on the drive, sequence, and remote panel.
6. Depress the **Fault Reset** push button, the fault message display should clear. If it doesn't reset any remaining faults and depress the fault reset again.
7. Reset all **Run / Stop** push buttons, (located along the conveyors path).
8. Sound the horn:
 - Three (3) short blasts
 - Bump the chain three (3) times
 - One (1) long blast on the horn
 - Run the chain
9. Press the green Start / Reset push button located on the front of the drive panel.

Note:

- If 10 or more minutes pass before the chain runs, repeat steps 8 & 9.
- If more than 20 minutes pass before chain is run, repeat entire procedure.

To Shut Down the Conveyor

EMERGENCY STOP:

Press the red button labeled Emergency Stop located at the nearest panel, which controls the conveyor you want to stop.

RUN/STOP:

Press the Red push button located on one of the Run/Stop operator stations located near the conveyor you want to stop.

CAUTION:

The conveyor can be restarted at the same location it was stopped. Use proper **Lockout and Tagout Procedures** if you need to work on or near a stopped conveyor.

CAUTION

CONVEYORS WILL START AT ANY TIME

BEFORE STARTING THE CONVEYOR:

- 1)The conveyor will be walked and all personnel notified that the conveyor will be started.
- 2)All obstructions on, over or in the conveyor's path will be removed
- 3)An air horn will sound three times (3 short blasts).
- 4)The conveyor will be "bump started" three times.
- 5)An air horn will sound one long blast and the conveyor will be placed into total run mode.

STOPPING THE CONVEYOR:

All stop stations mounted and wired will stop the conveyor movement.

Electrical Safety

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while working with electrical equipment which includes but is not limited to ground fault circuit interrupters, extension cords, welding leads, other temporary wiring, electric hand tools, lighting levels and welders. Lock out and tag out requirements are addressed in the "Lock Out Tag Out" standard.

All Personnel

Ground Fault Circuit Interrupters

Ground-fault protection is required on all electric tools and equipment. An Assured Grounding Conductor Program will not be used as the primary means of protection.

Protection of Electrical Extension Cords, Welding Leads, and Other Temporary Wiring

All electrical wiring shall be protected from damage.

Lighting Levels

Lighting levels shall meet or exceed the OSHA requirements.

Welders

Welders require terminal insulators or guards.

Lock Out Tag Out

Refer to the MCMA Lock Out Tag Out Requirement.

Qualified Personnel

It must be determined whether the scope of anticipated work includes the potential for exposure to electrical hazards, including, without limitation, whenever the scope of work involves installation, commissioning or removal of electric conductors or equipment. Employee exposure to electrical hazards must be eliminated by de-energizing all conductors or equipment that may be encountered, unless it is demonstrated that de-energizing the electric conductors or equipment will increase hazards to employees (such as with interruption of life support systems, emergency alarm systems, hazardous location ventilation, etc.) or is infeasible (such as with start-up, troubleshooting, electrical testing/measurement).

Pre-Task Plan

When electric conductors or equipment is unable to be de-energized, a pre-task plan for all tasks where employees work on or near exposed energized electrical conductors or circuitry must specifically describe how exposure to electrical hazards such as shock, arc flash and arc blast will be controlled. Additionally, the electrical pre-task plan must include the following:

- Reason electric conductors or equipment could not be de-energized;
- Method for determining the nature and extent of electric shock hazard, shock hazard analysis and determination of shock protection boundaries;
- Method for determining the nature and extent of electric arc flash hazard, arc flash hazard analysis, and determination of arc flash protection boundaries;

- Assessment of the nature and extent of electric arc blast hazard, and proposed plan to eliminate or control the exposure to the arc blast hazard.
- Identify qualified person(s) who are to perform the work;
- Explain the plan for keeping unqualified persons from entering or crossing shock, arc flash or arc blast protection boundaries;
- Specify protective clothing, tools or other protective equipment that employees will use in performing the tasks.

Personal Protective Equipment

Where personnel work on or near exposed energized electrical conductors greater than 50V, they must wear, as a minimum, personal protective equipment as specified in the NFPA 70E standard.

If the equipment is not labeled for Arc Flash and Electric Shock Hazard, personnel must, as a minimum level of personal protective equipment, wear ANSI Z 87.1 safety glasses with side shields and Flame-Resistant Clothing (long-sleeved shirt and pants or long-sleeved coverall) with a minimum arc rating of 8 cal/cm², and insulating gloves rated for the voltage level when working on or near energized circuits of 50V or higher including when performing electrical testing or measuring tasks to include the verification of de-energization.

Site and/or owner requirements may exceed NFPA 70E minimum standards.

Electrical Testing Equipment

Use only electrical testing devices that have been certified by Underwriters Laboratories, UL-3111 or equivalent, and that have been maintained, calibrated and inspected prior to use according to the manufacturers instructions/specifications.

Bus Plugs

Do not install or remove any Bus Plug rated GREATER THAN 200 Amps on an energized busway.

Equipment Safety

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while in and around "equipment", defined as all types of heavy equipment used in the course of construction work. This will include but not be limited to: excavators, back-hoes, cranes, Brodersons, industrial powered trucks (forklifts), bobcats, etc. (Aerial lifts are addressed in Aerial Lift section.)

Operator responsibilities

- All equipment is required to be inspected prior to use. The inspection sheet should be readily available on the equipment at all times.
- Copy of annual crane inspections required on site.
- The operator must be trained and qualified to operate the equipment.
- Forklift operators are required to have a forklift certification.
- Operators are required to wear seatbelts when provided.
- The operator shall have other proper certification when required, for example, a National Commission on Certification of Crane Operators NCCCO.
- The operator must know the weight of the load and the equipment's load capacity.
- Never lubricate, fuel, adjust, or repair equipment while it is running or in motion.
- If the operator believes a lift is unsafe, they have the duty and authority to stop the operation and notify their supervisor and safety.
- Riding on loads, fenders, running boards, sideboards, and gates, or with legs dangling over the ends or sides of motorized equipment is prohibited.
- Number of passengers on crash carts, golf carts, etc. shall not exceed the number of seats.

Area Safety

Escorts and/or spotters shall be used in congested areas and/or when the operator's view is obstructed.

Avoid pinch point/crush zones:

- Project/site specific pinch point/crush zone hazards shall be addressed in pre-task or critical lift plan as applicable.
- All personnel shall maintain two feet of clearance from motorized equipment at all times.
- Make eye contact with the operator and ensure his/her acknowledgement when approaching work zone.
- Use tag lines to control load.
- No part of your body should be under a suspended load at any time.

There shall be one signal person giving signals with the exception that anyone can give the stop signal.

Proper barricading shall be used to prevent people from entering crush zones. These areas and methods should be identified on the pre-task plan.

Fall Hazard Control

Scope

This standard applies to all MCMA contractor and subcontractor employees exposed to potential fall hazards of six feet or more to a lower level, or any distance where the likelihood of serious or fatal injury exists. Employees shall not be allowed to perform any work duties without proper use of fall protection equipment.

Definitions

A Qualified person is “one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project”.

Pre-task Planning

Any task that exposes a worker to a fall hazard, as defined above, must be identified in the Pre-task plan.

The Pre-task plan must identify in writing the name(s) of the Qualified person(s) who will be responsible for identifying and controlling fall hazards on the jobsite.

Fall Hazard Control – General Guidelines

The employer shall evaluate the work area for existing and potential fall hazards. Fall hazards of **6-feet or more**, or any distance where the likelihood of serious or fatal injury exists, require a fall protection system to be established.

Passive fall arrest systems, such as properly installed guardrails, hole covers, or safety nets should be considered first in the establishment of a fall protection system. Where passive fall arrest systems are not feasible, **active** fall arrest systems consisting of fall restraint or fall arrest shall be used.

Personal Fall Arrest Systems (PFAS)

Personal fall arrest systems are required whenever an employee is within six feet of an edge where a fall of six feet or more or where the likelihood of serious or fatal injury exists and where the edge is not protected by a guard rail or safety net.

Selection of a PFAS must be made by the contractor’s qualified person, based on an evaluation of the residual risks associated with its use. Types of residual risk include, but are not limited to:

- Anchorage – 5000 pounds per person
- Free Fall Distance – no more than six feet
- Fall Arrest System Extension and the resulting Total Fall Distance
- Pendulum (swing fall hazard)
- Fall Arrest System Malfunction
- Fall Out
- Maximum Arrest Force – 900 pounds
- Post-Fall Suspension Time

Equipment selected for PFAS shall include a full body harness and appropriate lanyard.

The body harness and lanyard system shall be inspected before each use for wear, damage and/or other signs of deterioration according to the manufacturers’ specifications available on the equipment label. Defective components shall be removed from service.

The personal fall arrest system must be attached continuously to an approved anchorage as long as the worker is exposed to the fall hazard (100% tie-off).

Anchorage used for attachment of personal fall arrest equipment should be:

- Independent of anchorage being used to support or suspend temporary work platforms
- Capable of supporting at least 5,000 pounds per worker
- Designed, installed and used under the supervision of a qualified person as part of a complete personal fall arrest system maintaining a safety factor of at least two.

Personal fall arrest system, when stopping a fall, should:

- Limit maximum arresting force on a worker to 900 pounds
- Be rigged so a worker can neither free fall more than 6 feet, nor contact any lower level
- Bring a worker to a complete stop and limit maximum deceleration distance a worker travels to 3.5 feet

The attachment point of a body harness used for fall arrest should be located in the center of the wearer's back, near shoulder level.

Personal fall arrest systems and components subjected to impact loading should be immediately removed from service.

Fire Safety

Scope: This standard applies to all MCMA contractor, member and subcontractor employees engaged in any fire or spark producing activity, such as: flame cutting, welding, grinding, plasma cutting, soldering, etc., or when flammable materials, such as gasoline, paint, etc., are used on the job site.

General Fire Regulations

The supervisor shall take all necessary precautions to eliminate all possible fire hazards and to prevent damage to any construction work, building, materials, equipment and other property.

All emergency exits, aisle ways, and fire equipment, hoses, extinguishers, cables and valves shall be kept free of obstacles, equipment and debris.

The supervisor shall provide adequate fire extinguishers, in good working order, and properly filled. Fire extinguishers must be checked by the assigned fire-watch attendee before starting work, and are required on all hot work jobs.

The fire watch shall be properly trained.

Hot Work

The supervisor shall inspect all areas where hot work is involved before a permit is obtained. The supervisor shall contact customer security to obtain a hot work permit before starting hot work operations. The permit is only valid for the date, time and location specified. The supervisor is responsible to ensure that all requirements of the permit are met.

When arc welding is to be done where other personnel may be present, an approved welding screen shall be used.

Welding stubs shall not be discarded on the floor at any time. Receptacles for welding stubs shall be provided and used.

Where hot work is to be done overhead, proper barricading shall be provided to areas below.

Customer equipment shall be protected from hot work activities.

Flammable Materials

Flammable liquids must be properly stored.

Housekeeping

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, as they work together to plan both the elimination/reduction of common housekeeping hazards, and maintain a well ordered and organized worksite from the point of project site planning through execution and demobilization.

Site Assessment

Prior to commencing work, the site walkthrough / visual assessment shall be conducted and consist of identifying and abating, as applicable, obvious housekeeping hazards. Following are examples of common housekeeping hazards:

- Material litter, including scrap and debris
- Rolling stock (e.g. pipe cut-offs, all-thread, welding rod, etc.)
- Waste (e.g. garbage, rubbish)
- Surplus or staged materials (when their presence represents a hazard)
- Isles, passage ways and points of access / egress shall be kept clean and orderly, clear of all slip / trip hazards.
- Properly identify and remove, if necessary, any previous barricading, warning tape, signage, tools, equipment and scrap / debris that have been left at the worksite by others that may constitute a hazard.
- Any identified housekeeping hazard shall be abated and communicated to the appropriate parties, prior to the commencement of work.

Work in Progress

Care shall be given to maintaining a well ordered and organized worksite.

- The Superintendent / Crew Foreman are to ensure that the work environment is maintained in an orderly and organized manner.
- In worksites where no dedicated cleanup personnel are assigned, the Superintendent / Crew Foreman shall ensure that the individual workers maintain good housekeeping practices.
- The workplace shall be walked / visually assessed by the Superintendent / Crew Foreman, near the end of the shift, to ensure that the housekeeping is acceptable and no identifiable hazards exist.
- Loose equipment, tools, material, etc., shall be cleared and verified from overhead areas before leaving each day.

Oily and waste solvent rags are a fire and environmental hazard and shall be deposited in metal containers with self-closing lids and placed at the appropriate waste location designated by the Customer's Environmental Specialist. Upon completion of the shift the supervisor / foremen shall ensure the work area is "broom clean".

Per contract documents, subcontractors who fail to comply with this rule risk being back-charged for clean up man hours, disposal fees, etc.

Ladder Safety

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while working on, inspecting, maintaining or storing of ladders.

Fall Protection

Require and enforce the use of a **personal fall arrest system**:

- Whenever **work performed upon a ladder** would allow a worker to fall a distance of **six** feet or more
- Any distance where the likelihood of a serious or fatal injury exists.

Personal Fall Arrest Systems (PFAS)

Selection of a PFAS must be made by the contractor's qualified person, based on an evaluation of the residual risks associated with its use.

Types of residual risk include, but are not limited to:

- Anchorage – 5000 pounds per person
- Free Fall Distance – no more than six feet
- Fall Arrest System Extension and the resulting Total Fall Distance
- Pendulum (swing fall hazard)
- Fall Arrest System Malfunction
- Fall Out
- Maximum Arrest Force – 900 pounds
- Post-Fall Suspension Time

The personal fall arrest system must be attached continuously to an approved anchorage as long as the worker is exposed to the fall hazard (100% tie-off)

Pre-task Planning

Any task that exposes a worker to a fall hazard, as defined above, must be identified in the Pre-task plan.

The **Pre-task plan** must identify in writing the name(s) of the **Qualified person(s)** who will be responsible for identifying and controlling fall hazards on the jobsite.

The term Qualified person(s) "means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project".

Anchorage

Anchorage used for attachment of PFAS shall be capable of supporting at least 5000 pounds per person

Metal Ladders

The use of metal ladders is prohibited.

Ladders-General

- Employees using ladders should be trained in proper use.
- Inspect the ladder prior to use. If damaged, tag out and remove from service.
- Face the ladder and keep your body securely positioned, preferably with three point contact at all times.
- Do not climb a ladder with material in your hands. A rope or mechanical lift should be used to raise and lower material.
- Avoid overreaching. Use a ladder long enough to reach the work area. Keep your belt buckle between the rails.
- Only one employee at a time on a ladder. (Except gang type ladders or special type ladders made for 2 people.)
- Do not position a ladder where an opening door might disturb it. Keep debris, materials, etc away from the base of the ladder.

Stepladders

- Do not stand on the top (cap) or the 1st rung below the cap.
- Properly setup ladder in the open locked position on all 4 feet.
- Class III (household) ladders are prohibited.

Straight Ladders

- Properly secure both the top rails and the bottom to prevent from slipping/sliding or kick out.
- Extend at least 3 feet above the landing.
- Angle the base no less than one-fourth of its working length. Check by placing your feet at the feet of the ladder. Reach out with your hands and grab the ladder. If not the ladder is set up improperly.

Lock Out Tag Out

Scope

This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors that are engaged in activities that require energy isolation and lockout and the total elimination of any potential unexpected energization, start-up or release of stored energy.

Qualified Person

Qualified individual(s) will be identified on the pre-task plan. They will be responsible for coordinating energy isolation and lockout activities and for resolving issues regarding energy isolation and lockout.

Training

Employees using lock out devices will be properly trained.

Prior to working on machines or equipment:

- A Lock will be installed by each affected worker.
- Stored energy is released by: venting, draining, grounding, electrical isolation, ventilation, and/or securing potential energy sources such as compressed springs, fly-wheels, elevated weights, etc.

Lockout Devices

Lockout devices are required on equipment or systems in which the unexpected energization, start-up, or release of stored energy could cause injury to people and/or damage to equipment. Activities affected include but are not limited to:

- Construction
- Modification
- Testing
- Servicing or Maintenance
- Start up or Commissioning

Lock out devices must have the worker's name or the lock ID number, the name of the company, and a contact number on the device or accompanying tag.

Contractor will use one safety lockout device on each energy source for each worker on the job. Each safety lockout device will have only one key. The key must be under the exclusive control of the worker who attached the safety lockout device.

For systems with multiple lock out locations, a gang lock box may be used.

A multiple lock hasp shall be used anytime there is only one hole left on a lock out device. Never put a lock in the last hole of a lock out device.

Energy Source Identification/Placards

Owner's machines and equipment may have on display a Lockout/Hazardous Energy Placard that identifies multiple or single energy sources and isolation devices. When working on machines or equipment bearing a Lockout/Hazardous Energy Placard follow the energy isolation instructions contained on the placard.

Safe Operating Procedures

A review of the Owner's lockout procedure, including any safe operating procedures pertaining to affected machinery or equipment, should be completed before commencing energy isolation and lockout.

A competent, knowledgeable person must evaluate the equipment and determine the proper method to safely de-energize the equipment and perform energy isolation.

Emergency Lock Removal

Under extraordinary circumstances, it may be necessary to remove a lock or tag that has been applied by someone else or without the proper authorization of the worker who installed it. Only the Supervisor may authorize the removal of a lock out device and only in accordance with the following:

- The worker who is responsible for the lock is not present at the facility, and all reasonable efforts have been taken to contact the worker.
- All measures are taken to notify the worker prior to his/her resuming work.

Manual Material Lifting / Handling

Scope: This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, engaged in manually lifting / handling loads.

Pre-Planning:

In the Contractor's Pre-Task Plan for Manual Lifting, the following, as a minimum, must be assured:

1. Determine the weight and approximate center of gravity of the load prior to lifting or moving.
2. Consider mechanical lifting devices (e.g. forklifts, chain-falls, etc) for excessively large or heavy objects.
3. Grip locations are solid and clear of pinch points.
4. Terrain is safe for lifting and carrying loads, and the path is free of obstructions and pinch points.
5. Personnel involved in manual material handling are properly trained in safe lifting / handling techniques
6. Materials are properly arranged and secured for transport.
7. Team / Buddy lifts are considered for heavy or awkward loads.
8. Communication is established for team / buddy lift. Agree on who is controlling the lift.

Manual Lifting / Handling:

1. Use proper lifting techniques when handling materials:
 - a. Place one foot slightly in front of the other for stability.
 - b. Squat down close to the load (no bending at the waist).
 - c. Keep your back straight.
 - d. Look up while lifting for proper spine alignment.
 - e. Lift gradually, using your legs. Do not jerk or twist.
 - f. Hold load close to your body for minimum stress to your spine and to maintain control.
 - g. Turn with your feet – do not twist at the waist.
2. Stored materials must not block any exit from a building or create a rolling stock, slip or trip hazard.
3. If, while carrying or pushing a load, it should become unbalanced and start to fall, let it fall clear rather than risk serious strain in attempting to balance or catch it.
4. Leather gloves & other PPE are to be used while handling materials.

Rigging

Scope: This standard applies to all MCMA contractor, member and subcontractor employees engaged in material handling activities at jobsites.

General Rigging Practices

The Competent Person for rigging will be identified on the Pre Task Plan.

The Competent Person shall determine the safe working loads of all rigging used and ensure that the rigging is of proper capacity for the load to be lifted. Rigging equipment shall not be loaded in excess of its recommended safe working load.

Always balance the load and know the weight of the load being lifted. Determine center of gravity and lift points prior to lifting.

All workers are to keep hands and fingers clear of the load and the rigging at all times. Never work under a suspended load.

All rigging equipment used for material handling shall be inspected prior to each shift, and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be tagged and removed from service immediately.

Shock loading is prohibited.

Rigging equipment, when not in use, shall be removed from the work area and properly stored.

Steel Chains

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods etc, or other type attachment shall not be used.

Welded alloy steel chain slings shall have permanently affixed durable identification stating size, grade, rated capacity, and sling manufacturer.

Chains shall be inspected/tested at a minimum of every 12 months; records of inspections must be readily available for evaluation.

Slings

Slings shall not be shortened with knots or bolts. Slings with kinks shall be removed from service.

Protruding ends of strands in splices on slings and bridles shall be covered or blunted.

Slings shall be padded or protected from sharp edges.

Do not pull the sling from under the load when the load is resting on the sling.

Nylon slings with red threads showing shall be taken out of service.

Scaffolding Safety

Scope: This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, engaged in the selection, set-up/construction, inspection, maintenance, and use of scaffolding.

Pre-Task Planning

A pre-task plan is required for work using Scaffolds.

The pre-task plan will cover the following at a minimum:

- Identify the scaffolding competent and/or qualified person.
- Falling object protection methods.
- Fall protection methods.
- Specify safe means of access and egress.
- Address any restrictions as identified on the scaffolding tag (see “yellow tag” below).

Inspections

At the beginning of each shift, the competent or qualified person must perform a visual inspection of the scaffold in accordance with the manufacturer’s recommendations. They must document the results of each inspection by affixing a tag indicating the status of the scaffold:

- **Green Tag:** The scaffold is safe and ready for use.
- **Red Tag:** The scaffold is unsafe or incomplete and not ready for use.
- **Yellow Tag:** The scaffold is ready to use with some restrictions. The restrictions will be indicated on the scaffold tag. An example of a restriction could be, “no guardrail installed – must use PFAS”.

Training

Training is required for scaffold users, erectors, and dismantlers.

Training and/or re-training shall take place according to the requirements of CFR 29 1926.454 and/or MIOSHA Part 12 Rule 1209.

Fall Protection

Fall protection is required when working on a scaffold platform over six feet high.

Trenching and Excavating

Scope: This standard applies to all MCMA contractor, member and subcontractor employees that perform trenching, excavation, and underground work.

Preparing to Excavate and General Requirements

Prior to opening an excavation, underground utilities (sewer, telephone, water, fuel, electrical lines, etc.) will be located. Utility companies and other responsible authorities should be contacted to locate and mark utilities and, if appropriate, direct or assist with protecting the underground installation.

Hand digging or vacuum excavation will be done when excavating within 3 feet of known utilities.

Existing utilities must be protected from damage or displacement and supported when spanning the excavation/trench.

In some cases PPE may be required to protect workers from the utility.

Excavation

A competent person must be assigned by the contractor for all excavations at or over 5 feet in depth. The competent person must inspect each trench daily prior to employee entry and intermittently during the excavation operations (particularly after a rainstorm).

Employees required to enter the excavation should be trained in cave-in protective systems, proper access, and recognition of potential unsafe conditions.

Protective systems should be used in all trenches unless:

- The excavation is less than 5' deep and the Competent Person sees no indication of a potential cave-in.
- The excavation is entirely in solid rock.

Protective systems may include approved methods of sloping, benching, or shoring or use of a trench box(es).

Support systems should be designed by a registered professional engineer. Appropriate methods should protect against cave-in or other hazards during installation and removal of support systems.

Excavations over 20 feet in depth must be designed by a professional engineer.

All surface encumbrances shall be kept a minimum of 2' back from the excavation. Surface encumbrances include: spoils, tools, materials, equipment, vehicles, etc.

Safe access/egress into and out of excavations should be provided. Typically this involves at least two means of exit, including a ladder within 25' of any employee.

Provide for proper drainage and control of water. Employees shall not work in excavations in which there is accumulated water or in which water is accumulating unless the hazards are controlled.

Without proper engineering or approval by the competent person do not:

- Undercut adjacent structures
- Excavate below the level of an adjacent footing
- Slope soil more steeply than the appropriate angle of repose.

Excavations, test pits, and temporary holes will be backfilled as soon as practical. Proper barricades or covers must be used to protect pedestrians and vehicular traffic. Care shall be taken at the end of the shift to ensure excavations are properly barricaded in order to protect owner personnel and/or the public.

If hazardous atmospheres are suspected, air tests will be conducted before and during each shift as appropriate.

Where excavations are suspected to contain hazardous materials or other contaminants the supervisor/safety representative will be contacted. The work will be stopped until appropriate safe guards are in place.

Walking/Working in Falling Parts Guards / Platforms

Scope: This standard applies to all MCMA contractor employees, along with employees working for subcontractors of MCMA contractors, while working in parts / basket guards and on platforms. The standard is divided into two sections: 1) "Pre-Planning" activities are conducted prior to work commencement and 2) "Walking & Working" governs safe work practices while actually working in/on the parts / basket guards or platforms.

Pre-Planning:

In the Contractor's Pre-Task Plan for walking/working in falling parts guards, the following, as a minimum, must be considered:

Moving Conveyors and Equipment

Determine if the work you will perform in the falling parts guard requires the conveyor or other adjacent equipment to be de-energized and locked out.

Pinch Points

Determine if the work you will perform in the falling parts guard exposes employees to any pinch points (e.g. between carriers, carriers/product on other conveyors, building steel, equipment, guardrails, etc.).

Unprotected Sides, Edges and Open Holes

For any area where you will be working, including the path of other personnel to and from the access point(s) of the work area, you must determine if the existing falling parts guard exposes anyone to potential hazards at unprotected sides, edges or open holes.

Care shall be taken to prevent tools, materials or other items from falling from the work area. However, the area below the work area shall be properly barricaded to prevent anyone below from being exposed to falling parts, tools, bolts, or other small items.

During construction of accessible parts guards a positive guard rail shall be installed at or near the leading edge prior to leaving at the end of shift to protect customer/owner personnel on the off shift.

Guardrail Systems

Determine if the existing falling parts guard sides meet the OSHA requirements for guardrail systems. If existing falling part guard sides do not meet the requirements, a method for fall protection must be provided.

Load Capacity

If work is performed in existing falling parts guards, a qualified person must determine if the guards will accept the load applied by the addition of personnel, materials and/or equipment. If the load capacity is insufficient, develop alternate plans for executing the scope of work.

Walking & Working:

Using a Ladder in Falling Parts Guard

When using ladders in falling parts guards, a stable and level surface must be provided on which to place the ladder. A worker shall use a fall arrest system when within the guard rail system when a hazard of falling six (6) feet or greater is possible. Consider location of the ladder and whether it is possible to fall over the guardrail. Fall protection is required when working off a ladder where the potential of falling past the guardrail is possible.

Pinch points and Live Conveyors

For all activity requiring work near a floor / screen guard opening at any customer's facility the following shall be implemented prior to creating the opening.

- The guard rail system shall be installed prior to creating the opening. If using a protective covering, it shall completely cover the opening and be able to sustain twice the intended load that will be placed on it. The covering shall be securely fastened and identified as; "OPENING DO NOT REMOVE", "HOLE", "COVER", etc.
- Legible warning signs shall be posted proportionately around the opening.
- Assign spotters as required if hoisting through the roof or floor opening. The contractor shall ensure that at no time is any part of the roof or floor opening left opened or unguarded.
- Where practicable, the protective device shall be set back a minimum of one foot (.3 meters).
- A worker shall use a fall arrest system when within the guard rail system when a hazard of falling six (6) feet or greater feet (1.8 meters) is possible.

This partnership was made possible due to the help and cooperation of the member contractors and signatory local unions listed below.

Alberici Constructors, Inc.
Barton Malow
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Dearborn Mid-West Conveyor
Central Conveyor
Overhead Conveyor Company
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Ironworkers Local 25
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