

# **OPS-SP-0008**

## **Mobile Equipment and Material Handling Policy**

| Revision History                                                                                                                                                                                                   |            |                |             |                                                |
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| 0                                                                                                                                                                                                                  | 09/12/2022 | R. Courtney    | JC          | Create new policy                              |
| 1                                                                                                                                                                                                                  | 05/19/2026 | R. Strahan     |             | Update policy to separate by topic and content |
|                                                                                                                                                                                                                    |            |                |             |                                                |
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## **1 Purpose**

The purpose of this procedure is to describe the requirements for use of mobile equipment including manually handling and moving materials.

## **2 Scope**

This procedure applies to all Ampirical employees, subcontractors, and visitors whose work activities include the use of mobile equipment and/or manually handling the movement of material.

## **3 Definitions**

### **3.1 Close Proximity Work**

- Any condition where any vehicle or piece of mobile equipment, the equipment's attachments, or the equipment's load comes within two (2) feet of an object.

### **3.2 Delineator**

- A portable or fixed device (typically posts, tubes, or cones) with high visibility used to guide traffic, mark construction zones, or define lane alignments.

### **3.3 Designated Travel Path**

- A path within a work zone which has been evaluated and established as a safe path for travel. This path does not require spotters when vehicles/mobile equipment are using it for travel only (i.e. no additional work). This path is marked with continuous (no gaps) high visibility barriers, such as construction fencing or barricade tape. Also, this path of travel is only in the forward direction.

### **3.4 Mobile Equipment**

- Powered equipment used to move materials or elevate personnel such as forklifts, bulldozers, front end loaders, skid steers, telehandlers, pallet jacks, scissor lifts, and aerial lifts.

### **3.5 Material Handling**

- The movement of materials by manual means or with mechanical assistance (e.g., carts, pallet jacks, forklifts).

### **3.6 Spotter**

- A trained individual who assists an equipment operator by maintaining visibility of hazards/clearances and providing clear direction during movement.

## **4 Responsibilities**

### **4.1 Management/Supervision**

- Provide appropriate equipment for the task and ensure equipment is maintained per manufacturer requirements.
- Validate operators are trained, qualified, and authorized for the specific equipment type.
- Verify traffic lanes, work surfaces, and signage/controls support safe equipment operation.

- Ensure no modifications or additions are made to equipment or attachments without manufacturer written approval.
- Ensure documented pre-use inspections are completed and retained, as required.

#### **4.2 Safety Department**

- Coordinate training and maintain training requirements for mobile equipment operators and spotters.
- Assure the equipment is operated and maintained in a safe manner and in accordance with equipment manufacturer's recommendations.
- Periodically audit/observe mobile equipment and material handling activities.
- Support corrective actions on mobile equipment.
- Maintain this procedure including updating based on incident learnings or operational changes.
- Ensure that all accident investigations, significant incidents, property damage reports, and general information regarding industrial trucks & equipment is communicated site-wide.

#### **4.3 Employees/Operators**

- Perform required documented pre-use inspections prior to operating equipment.
- Obey all traffic rules including speed limits, signals, and warning signs.
- Wear seat belts and keep body parts within equipment confines.
- Stop work and notify supervisor if conditions become unsafe or controls are ineffective.
- Report incidents, near misses, and equipment defects immediately.
- Maintain Certification and Recertification to operate equipment.
- Operate only equipment for which they have been trained.
- Remain alert and do not operate equipment if mentally or physically impaired.
- Notify supervision of any significant incidents, property damage, or near misses for mobile / motorized equipment.
- Comply with this procedure and operate equipment safely.

## **5 Mobile Equipment**

### **5.1 Inspections**

- Before operating any mobile equipment, the operator must complete a documented pre-use inspection at least daily. The inspection must follow the requirements of the equipment manufacturer. When equipment is used on a round-the-clock basis, it shall be examined after each shift.
- Any deficiencies identified during the inspection must be documented. A supervisor must be notified so corrective action can be taken.
- Equipment found defective, in need of repair, or deemed unsafe must be removed from service until restored to safe operating conditions. Repairs must be made by a skilled maintenance person, and records of all repairs must be retained.
- Equipment will be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Examinations are to be made at least daily.

## **5.2 Spotting/Traffic Planning Requirements**

- Before any movement of equipment begins, a traffic control plan must be developed to coordinate the movement of workers and mobile equipment at the site.
- The best path of travel must be determined and selected by the operator and spotter based on equipment size/weight/turning radius, equipment load, road conditions/size, travel distance, obstructions, nearby work, power lines/energized equipment, and any other items that need to be considered for a safe travel path.
- A spotter is required if any of the following exist:
  - The potential for contact with objects or personnel.
  - Mobile equipment is operated in a work zone which is typically any area except an established roadway.
  - Limited visibility or tight spaces.
  - Working or traveling near power lines or other energized equipment.
  - Loading or offloading materials or the equipment itself.
  - When backing.
- A Designated Travel Path can be established and does not require spotters when vehicles/mobile equipment are using it for travel only (i.e. no additional work). The path must be marked with continuous (no gaps) high visibility barriers, such as construction fencing or barricade tape, and the path of travel is only in the forward direction. Established roadways can be used as Designated Travel Paths without the use of continuous high visibility barriers.
- During site preparation work when no objects or personnel other than equipment operators are in the work zone, spotters may be positioned at a distance where the entire work zone can be seen if verbal communication, such as radios, is maintained with the operator in the event an emergency stop is needed.
- UTVs or multiple spotters must be utilized when the work requires spotters to travel long distances. Multiple spotters must also be utilized when the work area setup necessitates their use.
- Spotters and operators must maintain a clear line of communication. Operators must not make any movements without visual or verbal communication from the spotter.
- Spotters must maintain proper positioning to ensure their personal safety, and a safe path of travel and movement is maintained. Spotters must never position themselves within six (6) feet of the maximum reach of a piece of equipment.
- Operators must stop if communication with the spotter is lost, there are unclear directions, or the spotter is improperly positioned.
- Spotters must keep on their person a device such as a whistle, air horn, or similar device that can adequately be used to signal an operator for an emergency stop. This device must only be used for an emergency stop signal.
- Exceptions to Spotter use/requirements can only be requested when use of a spotter creates a greater hazard than not utilizing one. The exception must be approved by Project, Construction, and Safety Management through a developed work plan.

## **5.3 Equipment/Material Offloading Requirements**

- When offloading material from a truck/trailer using mobile equipment, one of the following must be in place:

- Equipment backup (i.e. forklift) or adequate stanchions/bollards to prevent material from being pushed off the opposite side of the trailer.
  - Barricading at least fifteen (15) feet around the back side of the trailer to prevent entry into the potential drop zone.
  - Additional spotter(s) designated to prevent entry onto the back side of the trailer to and into the potential drop zone.
- Loads on trailers must be unstrapped one section at a time. Only the section of the load being actively offloaded may be unstrapped.
- When accessing a trailer is necessary, a ladder that is manufactured and designed for trailer access is required to be used. If this ladder is unavailable, another method for safely accessing the trailer must be approved by supervision. Climbing onto a trailer is never an acceptable method.
- An observer is required when accessing a trailer over four (4) feet in height. Accessing trailers over six (6) feet in height without fall protection is not allowed. Personnel are prohibited from being on trailers during actual loading or unloading of materials or equipment and are restricted to only walking in a forward progression.

#### **5.4 General Operating Requirements**

- All mobile equipment must be used in adherence to manufacturer requirements including load capacities.
- Free rigging (direct attachment of rigging onto the forks of a forklift for a “below the forks” lift) is not allowed without written approval from the forklift manufacturer or analysis and approval by a qualified Professional Engineer.
- Fork softener must be used for all material not positioned on a pallet when utilizing a forklift.
- No modifications or additions which affect the capacity or safe operation of equipment shall be made without the manufacturer's written approval.
- Lifts using any type of mobile equipment require at least a Common Lift Plan (refer to Lifting and Rigging Procedure).
- When operating mobile equipment, PPE must be selected based on the type of equipment and environment in which the equipment is operated. Refer to the Personal Protective Equipment Policy for further information.

#### **5.5 Close Proximity Work Requirements**

- Any condition where a vehicle or piece of mobile equipment, the equipment's attachments, or the equipment's load comes within two (2) feet of an object is considered Close Proximity Work.
- Equipment operators are required to maintain at least two (2) feet of distance from any object. Spotters must provide directions to the operator to maintain this distance.
- If close proximity work is necessary, the crew will notify supervision. Supervision will evaluate the work area with the crew and identify additional safeguards to prevent contact with objects. This plan/safeguards will be documented on the JSA and discussed with the crew.

- When constructing a substation, all foundations, piles, containments, or similar, must be marked utilizing high vis delineators that are at least forty-two (42) inches in height or taller for the vehicle/equipment operator to effectively identify these objects. These delineators must be installed by the company wrecking the form at the time of form wrecking and must remain in place throughout construction.
- These delineators may only be removed by the above grade contractor at the time steel structures/lights/handrails/etc. are being installed on that specific structure.
- The Close Proximity Checklist is a form available to assist with the evaluation of Close Proximity Work. This form is not required for use but may be implemented as a requirement by Ampirical Management, if deemed necessary, due to violations of this procedure, or the work taking place is considered high risk for property damage.

#### **5.6 Work Near Power Lines or Energized Equipment**

- All mobile equipment must comply with the following requirements when working or being moved in the vicinity of power lines or energized transmitters. where electrical distribution and transmission lines have been deenergized and visibly grounded at point of work or where insulating barriers, not a part of or an attachment to the equipment or machinery, have been erected to prevent physical contact with the lines:
  - For lines rated 50 kV or below minimum clearance between the lines and any part of the equipment or load shall be 10 feet.
  - For lines rated over 50 kV minimum clearance between the lines and any part of the crane or load shall be 10 feet plus 0.4 inch for each 1 kV over 50 kV, or twice the length of the line insulator, but never less than 10 feet.
  - In transit with no load and boom lowered, the equipment clearance shall be a minimum of 4 feet for voltages less than 50 kV and 10 feet for voltages over 50 kV, up to and including 345 kV, and 16 feet for voltages up to and including 750 kV.
  - A spotter must be designated to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means.
  - Any overhead wire will be an energized line unless and until the person owning such line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded.
  - Equipment must not be loaded or offloaded where possible near power lines or energized equipment.

## **6 Material Handling (Manual)**

### **6.1 Evaluation**

- When developing a plan to conduct manual material handling, the Hierarchy of Controls must always be considered with the goal being to eliminate the need for a manual lift. When feasible, equipment must be used to conduct material handling.
- Ensure the travel path and staging area is clear and will remain clear.

### **6.2 Manual Lifting**

- When it is decided that manual material handling must be conducted, consider the following and put it into place when possible:
  - Break down the load into smaller units.

- Stage materials in the “green zone” to reduce ergonomic stress (close to your body at waist height, avoid twisting, avoid lifting above shoulder height or below the knee.
  - Use mechanical assist devices.
  - Ideal lifting conditions consider posture, carry length, grip, frequency, travel path.
- A single person manual lift cannot exceed 50 lbs in ideal conditions.
- A two-person team lift cannot exceed 100 lbs in ideal conditions.
- All manual material handling requires the use of gloves. Gloves must be appropriate for the material being handled.

## **7 Material Storage Requirements**

- Materials shall be stored only in designated areas that have been evaluated for suitability prior to storage.
- Storage area evaluations shall consider, at a minimum:
  - Adequate space for safe access, handling, and movement of personnel and mobile equipment.
  - Stability of the ground or surface to prevent shifting, settling, or collapse of stored materials.
  - Material type, weight, size, and stacking limitations.
  - Compatibility of materials to prevent chemical reactions or other hazards.
- Materials shall be stored in a manner that minimizes fire and explosion hazards including:
  - Maintaining required clearances from ignition sources, heat sources, electrical equipment, and exits.
  - Preventing obstruction of fire lanes, fire protection equipment, and emergency egress routes.
  - Storing flammable or combustible materials in accordance with applicable fire prevention requirements.
- Stored materials shall not:
  - Create struck-by, caught-between, or collapse hazards.
  - Obstruct walkways, designated travel paths, or emergency access routes.
  - Interfere with traffic control plans or equipment operation.
- Storage areas should be maintained in an orderly condition, with materials secured as necessary, to prevent movement due to vibration, wind, or incidental contact.
- Storage conditions shall be reassessed when:
  - Material types or quantities change.
  - Site conditions change.
  - Mobile equipment access or travel paths are modified.

## **8 Training**

- Employees working as dedicated spotters must be trained to effectively perform their task.
- Dedicated spotters for power lines must be trained in accordance with 29 CFR 1926.1428.

- All operator training and evaluation shall be conducted by qualified persons who have the knowledge, training, and experience to train equipment operators and evaluate their competence. The training content should include equipment operating instructions, use of controls, capacity and load stability as a minimum.
- Equipment operators must be trained on the safe operation of the specific type of equipment the operator will be using, as well as be trained as a spotter.
- Training provided to mobile equipment operators and supervisors must include recognizing, preventing, and controlling fatigue. Training must include common signs and symptoms of fatigue, factors that contribute to fatigue, and the proper process for reporting fatigue or fitness-for-duty concerns to supervision.
- All training must consist of a written or oral exam and a practical operating exam unless able to furnish satisfactory evidence of qualifications and experience.
- Training, or at minimum an evaluation of the operator's performance, must be conducted and documented once every three (3) years.
- Refresher training in relevant topics shall be provided to the operator when:
  - The operator has been observed to operate the equipment in an unsafe manner.
  - The operator has been involved in an accident or near-miss incident.
  - The operator has received an evaluation that reveals that the operator is not operating the equipment safely.
  - The operator is assigned to drive a different type of equipment.
  - The condition in the workplace changes in a manner that could affect safe operation of the equipment.

## **9 References**

NIOSH Lifting Guide  
29 CFR 1910.178  
29 CFR 1926.600  
29 CFR 1926.602