OSHA REGIONAL NOTICE

U.S. DEPARTMENT OF LABOR — Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 04-00 (LEP 002) | **EFFECTIVE DATE: October 1, 2014**

SUBJECT: LEP for Powered Industrial Vehicles
REGIONAL IDENTIFIER: Region V

ABSTRACT

Purpose: To renew the Local Emphasis Program for Powered Industrial Vehicles

References: OSHA Instructions: CPL 02-00-051, CPL 04-00-001, CPL 02-00-150, Field Operations Manual (FOM), CPL 02-00-115 and CPL 02-00-111, as noted in Section IV of this LEP

Action Offices: Region V Area Offices

Originating Office: Aurora Area Office

Contact: U. S. Department of Labor – OSHA
Enforcement Programs
230 S. Dearborn Street, Room 3244
Chicago, IL 60604
(312) 353-2220

By and Under the Authority of

For

Nick A. Walters
Regional Administrator

I. **Purpose.** Extends this Local Emphasis Program (LEP) for FY 2015.

II. **Scope.** This Notice applies to the jurisdictional areas of the Region V OSHA Area Offices. All inspections conducted under this directive will be in accordance with the Field Operations Manual.

Any referral or complaint classified by OSHA as "serious" which alleges a hazard or a condition that may be a violation of the powered industrial truck standard or a potentially fatal "struck/caught/fall hazard" associated with the operation of a powered industrial vehicle (e.g., struck by falling load, struck against, caught between, caught in, or fall hazard) in general industry or construction will be activated for inspection. A hazard is determined by OSHA to be serious if there is substantial probability that death or serious physical harm could result from an existing condition, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use. Inspections meeting the criteria set forth in this LEP will also evaluate safety and health hazards in or around loading docks or other designated loading and unloading areas (Including, but not limited to: loading docks, shipping and receiving areas, yard areas, and other locations where vehicles are loaded and unloaded).

III. **Expiration.** This Notice expires on September 30, 2015.

IV. **Definitions.** A powered industrial vehicle (PIV) as used in this LEP includes vehicles as defined by 1910.178, skid steer loaders, and earth moving equipment that was designed to move earth and has been modified to accept forks. Powered industrial vehicles can be ridden or controlled by a walking operator and include any mobile power-propelled truck used to carry, push, pull, lift, stack or tier materials. Vehicles covered include, but are not limited to:

High Lift trucks	Counter-balanced trucks
Cantilevered trucks	Rider trucks
Forklift trucks	High platform trucks
Low lift trucks	Loft lift platform trucks
Motorized hand trucks	Pallet trucks
Narrow aisle trucks	Straddle trucks
Reach rider trucks	Single side loader trucks
High lift order picker rider trucks	Motorized hand/rider trucks
Rough terrain trucks	Skid steer loaders

V. **References.**

A. OSHA Instruction CPL 04-00-001, November 10, 1999, Procedures for Approval of Local Emphasis Programs (LEPs)

B. CPL 02-00-150, Field Operations Manual (FOM)

C. OSHA Instruction CPL 02-00-111, November 27, 1995, Citation Policy for Paperwork and Written Requirement Violations

D. OSHA Instruction CPL 02-00-051, May 28, 1998, Enforcement Exemptions and Limitations Under the Appropriations Act

VI. **Background.** A Powered Industrial Truck (PIT) Local Emphasis Program (LEP) originated in the Illinois Area Offices in FY 2003 due to the number of PIT fatalities within the State. In FY 2007, the Region V PIT LEP was expanded to all of the Illinois, Ohio, and Wisconsin OSHA Area Offices and the name was changed to Powered Industrial Vehicle (PIV). The reason for the national and local emphasis on powered industrial vehicles is the need to reduce the number of fatalities caused by PIVs. In the Federal jurisdiction of Region V, PIVs have been the source of 105 occupational fatalities in the 2005 through the 2014 fiscal years.

The breakdown of these fatalities by equipment and hazard type in the past nine fiscal years in Region V follows. This information is provided to OSHA staff so that they can advise employers of the biggest risks of fatal incidents and to better evaluate workplaces for these hazards.

Region V PIV Fatality Comparison – FY's 2005 – 2014

Powered Industrial Vehicle	**FY 05**	**FY 06**	**FY 07**	**FY 08**	**FY 09**	**FY 10**	**FY 11**	**FY1 2**	**FY 13**	**FY14**
Forklifts (includes walkies)	13	15	10	9	5	9	5	7	8	5
Skid steers/Bobcats	0	3	1	0	1	3	0	1	1	1
Straddle Carrier (containers)	0	0	0	1	0	0	0	0	0	0
Tow Tractor (Trailer spotter)	0	0	0	0	0	0	1	0	0	0
Excavators/ Backhoes	2	4	1	2	0	1	0	0	0	1

(none with forks attached in FY09 or FY11)										
John Deere Tractor (with forks)	0	0	0	0	0	0	0	1	0	0
Laser Guided Vehicle (with forks)	0	0	0	0	0	0	0	1	0	0
Annual Totals	**15**	**22**	**12**	**12**	**6**	**13**	**6**	**10**	**9**	**7**

Other agencies have also noted fatalities caused by PIVs. In June 2001, the National Institute for Occupational Safety and Health (NIOSH) issued Alert Publication No. 20010-109 (Preventing Injuries and Deaths of Workers Who Operate or Work Near Forklifts). The publication states "In the United States, 1,021 workers died from traumatic injuries and over 200,000 others were seriously injured in forklift related accidents from 1980 to 1994." The National Traffic Occupational Fatalities Surveillance System (NTOF) uses death certificates to identify work-related deaths. These fatalities resulted from the following types of accidents.

Type of incident	**% total victims**
Forklift overturns	22
Worker on foot struck by forklift	20
Victim crushed by forklift	16
Fall from forklift	9

NIOSH recommends that employers and workers comply with OSHA regulations and consensus standards, maintain equipment, ensure comprehensive worker training, and institute systematic traffic management to prevent forklift accidents. This emphasis program will enable Region V Area Offices to increase the awareness of employers, ensure proper training of employees, the required operation, inspection and maintenance of powered industrial trucks, along with compliance with OSHA regulations and all other applicable consensus standards.

OSHA Region V will target and evaluate the hazards of Powered Industrial Vehicles (PIVs) through this LEP.

VII. **Action.** Region V Area Directors shall ensure that the procedures outlined in this Notice are followed and adhered to in the scheduling of inspections under this LEP. OSHA Compliance Officers shall ensure that the procedures contained in this Notice are followed when conducting inspections related to this program. Area Directors shall

ensure that the State Consultation Program Manager is notified of the procedures to be used in the conduct of inspections under this LEP.

VIII. **Procedures.** The following procedures will be used in the conduct of inspections under this LEP.

A. Inspection Goals Region V Area Offices shall conduct inspections under this program through the Fiscal Year this program is active.

B. Selection and Scheduling of Complaints and Referrals The Area Offices will identify and schedule for inspection all serious complaints and referrals, alleging a hazard or a condition that may be a violation of the powered industrial truck standard or a potentially fatal "struck/caught/fall hazard" associated with the operation of a powered industrial vehicle (e.g., struck by falling load, struck against, caught between, caught in, or fall hazard) in general industry or construction. The inspection will address all complaint items, all aspects of the powered industrial truck standard, powered industrial vehicles and associated hazards, collection of OSHA 300 data and hours worked for the previous three years plus the current year, an evaluation of the employer's safety and health program in accordance with the FOM, an evaluation of safety and health hazards at the employer's loading dock or other designated loading and unloading areas (including loading docks, shipping and receiving areas, yard areas, and other locations where vehicles are loaded and unloaded),and an evaluation of the employer's lockout/tagout program in accordance with CPL 02-00-147. The inspection will be expanded in accordance with programmed inspection scheduling procedures and plain view as applicable.

C. Programmed Inspections Inspections of all General Industry and Construction worksites utilizing powered industrial vehicles will be expanded to include powered industrial vehicle hazards and equipment as described in Section VIII.B.

D. Data Collection The Area Office will collect data from OSHA 300 logs for the previous three calendar years plus the current year from all employers inspected under this program that are required to maintain them. The data, which will include the totals from all the columns of the 300 log and the total hours worked by all employees for these years, will be used to assist in the evaluation of the program.

E. Deletion Criteria OSHA Instruction CPL 02-00-051, Enforcement Exemptions and Limitations under the Appropriations Act will be adhered to in the implementation of this program.

IX. **OIS Coding.** The OSHA-1 form for all inspections conducted in establishments that are covered by this program shall be coded in Block 25c, Local Emphasis program, with "PIV."

X. **Outreach.** Appendices 1 and 2 maybe used for outreach.

Notification of major users of powered industrial vehicles as well as distributors of the equipment will be accomplished via outreach mailing, electronic mailing, and presentations.

XI. **CSHO Protection.** Inspections conducted under this Notice will occur in a broad range of general industry and construction establishments. Inspections under this LEP are to be conducted by CSHOs who have received training on the LEP and the hazards of the industry most likely to be encountered. Compliance Officers shall establish the presence of hazardous substances prior to initiating the walkaround portion of the inspection, relying on information such as previous inspection histories, material safety data sheets, and/or previous exposure monitoring surveys.

XII. **Evaluation.** The Aurora Area Office Area Director will submit to the Assistant Regional Administrator for Enforcement Programs an evaluation report, which will cover the previous year's activities. The evaluation shall be submitted by September 8th for each year this LEP is in effect and shall include the following elements.

A. Number of employees removed from hazards related to powered industrial vehicles.

B. Number of violations cited related to powered industrial vehicles as indicated by the Related Event Code.

C. Number of violations cited related to violations under the 1910.178, 1926.451(c)(2)(v), 1926.602(c) standards, General Duty Clause violations related to PIVs and struck/caught/fall hazards.

D. Number of hazards corrected which are not related to powered industrial vehicles.

E. Number of inspections resulting in violations related to powered industrial vehicles.

F. Average number of violations per inspection.

G. Assessment of how this program has helped the Agency meet its five-year strategic plan.

H. Percent of serious violations related to powered industrial vehicles.

I. Reduction in the Lost Workday Injury and Illness Rate for those employers required to maintain the OSHA 300 log.

J. Evaluation of the elements listed in OSHA Instruction CPL 04-00-001– Procedures for Approval of Local Emphasis Programs (LEPs).

K. Fatalities related to powered industrial vehicle operations.

Appendix 1
Powered Industrial Vehicles Information Package

Powered Industrial Vehicle Fatalities in Illinois, Ohio, and Wisconsin

Powered Industrial Vehicle	**FY 05**	**FY 06**	**FY 07**	**FY 08**	**FY 09**	**FY 10**	**FY 11**	**FY1 2**	**FY 13**	**FY14**
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Tow Tractor (Trailer spotter)	0	0	0	0	0	0	1	0	0	0
Excavators/ Backhoes (none with forks attached in FY09 or FY11)	2	4	1	2	0	1	0	0	0	1
John Deere Tractor (with forks)	0	0	0	0	0	0	0	1	0	0
Laser Guided Vehicle (with forks)	0	0	0	0	0	0	0	1	0	0
Annual Totals	**15**	**22**	**12**	**12**	**6**	**13**	**6**	**10**	**9**	**7**

Powered Industrial Vehicle Evaluation Points

1. Forklifts

- Equipment and training
- Truck and traffic control and controlling speed
- Powered industrial truck driving – Note that tip-overs occur most frequently when the truck is driven in reverse and turned with mast elevated
- Seat belt use
- Fall protection tie-offs for order picking at heights in warehouses to prevent fall deaths
- Maintenance practices – blocking/cribbing when a lift is jacked up to prevent crushing deaths
- Maintenance practices – blocking mast and upright when working around mast to prevent caught between deaths
- Dock safety program to prevent struck by/crush by deaths-
- Use of approved lifting platform secured to forks to prevent fall deaths
- For open lifting platforms used in warehouse stocking, use of appropriate tie-off fall protection to prevent fall deaths
- Lifting carriage amputation protection (chains/moving parts)

Photo: overturn after driven off dock, seat belt not worn, fatality

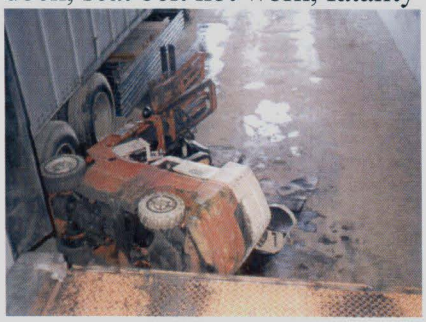
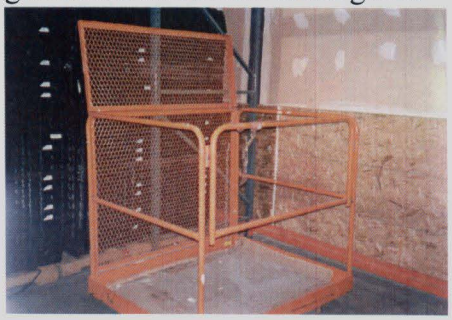


Photo: approved lifting platform with guardrails and metal mesh guard



2. Excavators/backhoes

- Prevention of overhead loads to prevent struck by load deaths
- Swing radius protection to prevent caught between deaths
- Operator and pedestrian worker training and communication to prevent struck by deaths
- High visibility clothing for pedestrian employees
- Chains and rigging for lifting loads to prevent struck by load deaths
- Riding in bucket or on side of excavator to prevent fall deaths
- Powerline program to prevent electrocution deaths
- Quick coupler program to prevent struck by excavator bucket deaths (see SHIB on OSHA website: **"Hazards of Inadequately Securing Hydraulic Excavator Buckets When Using Quick Coupling Devices",** http://www.osha.gov/dts/shib/shib072205a.html.

Photo: quick coupler and buckets

3. Front end loader

- Chains and rigging for lifting loads to prevent struck by load deaths
- Operator and pedestrian worker training and communication to prevent struck by vehicle deaths
- High visibility clothing for pedestrian employees

4. Skid steer/bobcat

- Driver and pedestrian worker training to prevent struck by vehicle deaths
- Seat belt use
- Safety interlocks not bypassed or malfunctioning
- Driver training to keep head and body inside driver cockpit to prevent caught between deaths

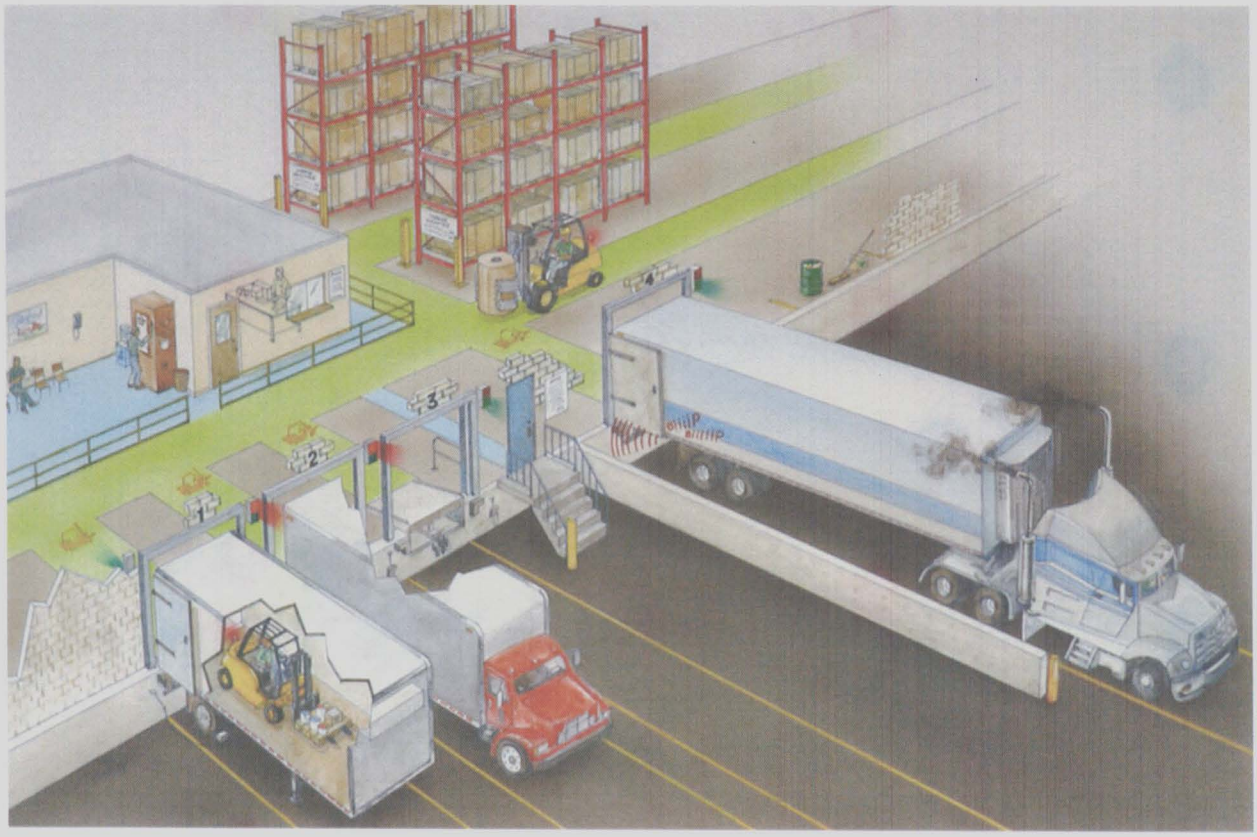
  Reference: NIOSH Alert "Preventing Injuries and Deaths from Skid Steer Loaders," Publication #98-117, 2/98

5. Scraper/grader

- Operator and pedestrian worker training and communication to prevent struck by vehicle deaths
- High visibility clothing for pedestrian employees

Appendix 2

Dock Safety Plan



Contents of the Loading Dock Safety Program

1. Regulatory Standards
2. General Company Policy
3. Responsibility
4. Vehicles/Pedestrian Traffic Flow within the Property
5. Signage in the Yard.
6. Illumination – Visibility
7. Driver Check-In
8. Acceptance of the Load
9. Spotting the Trailer into the Dock Bay
10. Securing Trailer to the Dock (Dock Plates-Levelers)
11. Secure Trailer to Preventing Unscheduled Departures
12. Entering/Exiting Trailers – Loading or Unloading Trailers
13. Releasing the Trailer Back to the Driver or Yard Jockey
14. Inspection, Reporting and Maintenance Procedures
15. Training of Personnel
16. Housekeeping for Loading Docks
17. Environmental Conditions
18. Working/Walking Surfaces at Dock Areas and Dock Edge
19. Emergencies
20. General Rules
21. References
22. Revisions
23. Disclaimer

Regulatory Standards

OSHA - 29 CFR 1910.178 (Powered Industrial Trucks)
OSHA - 29 CFR 1910.176 (Materials Handling)
OSHA - 29 CFR 1910.30 (Dockboards)

General Company Policy

It is the objective of the XYZ Company to provide our workers and truck drivers with a safe environment. Injuries sustained when lift trucks tip over or fall from docks, or those that occur when pedestrians are impacted by a lift truck, falling load, or tractor-trailer, tend to be very serious and often fatal. Prevention of these types of accidents can be achieved through proper equipment, proper training, and enforcement of safe operating procedures.

XYZ Company will ensure that all loading docks within our facility(s) are evaluated. This Dock Safety Program intends to address comprehensively the issues of; evaluating and identifying potential deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, protective measures, and corrective measures for employees.

A comprehensive inspection and maintenance program will maintain the facility and equipment in proper operating condition.

The prevention of employees crushed and struck-by hazards created by delivery vehicles, semi-tractor and trailer, and private vehicles starts at the property line where the delivery vehicle enters. This program will address rules regarding the yard, delivery vehicle and the facility's dock area.

Responsibility

_____ is responsible for implementation and operation of this program. He/she is has full authority to make necessary decisions to ensure success of the program. _____ will review this policy at least annually.

_____ will conduct a job safety hazard analysis of all types of tasks dock employees perform and determine the extent of their exposure to hazards.

All employees are authorized to halt any operation on the dock where there is danger of serious personal injury. Employees are to report hazards, damaged or missing equipment to the supervisor immediately.

Supervisors are to monitor work practices to assure compliance with safety rules and enforce discipline policy.

Vehicles/Pedestrian Traffic Flow within the Property

The following types of traffic at this facility are: Incoming and Outgoing Semi-Tractor and Trailers, Straight Delivery Trucks, Powered Industrial Vehicles and Private (employee) Vehicles. XYZ Company has established a Traffic Flow Plan for entering, maneuvering within and exiting the property/yard. Traffic will be eliminated, separated or controlled by: _____ (*Draw Facility Map*)

Pedestrians enter the traffic / yard area when workers enter or leave the employee parking lot or travel to the storage yard. Pedestrians will be separated or controlled away from motorized traffic by: _____
(See Facility Map)

If traffic needs to interface (back-up/park) with Public Property (street/sidewalk), then the following precautions have been taken: _____

Various surface encumbrances have been identified. Obstacles, fixed structures, overhead clearance issues along with tight maneuvering/cornering have been pointed out in the facility map, signage, barriers and/or reflective tape.

The following have been considered as means of eliminating, separating and/or controlling the conflict between vehicles or vehicle and pedestrians or obstacles.

- Shipping & Receiving Separated from Employee Parking Lot
- One-Way Traffic Flow or Lanes
- Traffic Lanes with Visible Lines Painted
- Physical Barriers Between Pedestrian & Vehicle Travel Path
- Remove Obstacles or Re-Locate Out of Traffic Lanes
- Additional Concrete Barriers-easily identified by Paint or Reflectors-for Fixed Objects
- Prohibit Pedestrian Traffic in High Risk Areas
- Designated Pedestrian Crossing Points

Signage in the Yard

Signs and markings have been posted for the speed limit of _____ mph. Clear directions and signage will be provided for truck drivers and visitors. Pedestrians will have designated and marked walkways and crossing points with warning signs for both vehicles and pedestrians.

Illumination – Visibility

The yard lighting will be adequate for all seasons and shifts. Yard workers will wear high visibility vests. Vehicles–Powered Industrial Vehicles and Delivery Trucks-will have their appropriate lights on to remain visible. Parking lot lighting will be in accordance with ANSI/IESNA RP 7-01. 5.

Driver Check-In Review OSHA's Multi-Employer Worksite Policy.

The signage will clearly indicate to the driver where or how to report to the loading dock. The driver will be given basic instructions on the Rules and Procedures at this Facility such as PPE, Hi-Vis Vest, Spotter, etc.

Instructions will be given as to how to proceed to the dock area or the next step. The driver will be given instruction on live-loading if permitted.

*****Best Practice*** Drivers' Permit valid for 1 Year at your facility.**
*****Best Practice*** Security check point for Drivers' site instructions.**

Acceptance of the Load

If an XYZ worker is to open the door(s) of the delivery vehicles/trailer, the worker needs to anticipate that the load had shifted. Several methods are used to prevent shifting loads such as airbags and temporary bulk heads. If there is pressure against the door, the material is likely to be pushed up against the door and could fall out when the doors are opened.

The type of door has their own hazards: Roll-up or Swinging Doors. Swinging doors can be caught by the wind and pull it out of the workers arms or knock over the worker.

Unlatching or untarping loads from flat beds can cause the product to roll off the trailer and onto the worker. (Release of stored energy – see DOT Cargo Securement Standard 49 CFR 373.)

*****Best Practice*** Use soft sided trailers in lieu of tarping.**

A fall hazard exists when walking on top of the flat bed trailer and/or load or climbing on top of a tanker truck.

*****Best Practices*** Use fixed elevated platforms in the dock bay.**
*****Best Practices*** Use Harness/Lanyard with engineered fall restrains.**
*****Best Practices*** Use Portable stairway.**

The XYZ shipping and receiving worker will verify the materials being delivered, check for shifted loads, rodents, insects, debris, damaged products, spills, or leaks. (See DOT Emergency Response Guidebook) If chemical(s) have leaked, report to your supervisor and consider that the trailer may have a hazardous atmosphere. MSDS (Material Safety Data Sheets) for chemicals being shipped in are to be on file at this facility or accompany the shipment of the chemical.

The XYZ shipping and receiving worker will perform and inspection of the trailer to ensure that the trailer is safe to board and load/unload product. Perform a visual inspection of the trailer prior to driving a lift truck into it. Damaged and rotting floorboards are common in older trailers.

Ensure tandems are slid and locked in a safe position to board and prevent collapse or upending. XYZ employees are not to assist in sliding and locking tandem wheels into position. That is the truck driver's responsibility.

Spotting the Trailer into the Dock Bay

Employees are prohibited from standing/working behind, underneath or in close proximity to moving trailers, or trailers that have the potential to move. If we are required to install or remove security seals for truckloads and containers you should do this in a safe area away from the dock. Never stand between a trailer and the dock.

Truck Drivers or Yard Jockeys are prohibited from coupling or moving trailers in the dock or yard area until the driver has effectively verified, or another employee has effectively verified

and communicated to the driver, that all employees and equipment have been removed from the trailer and surrounding areas.

Employees servicing as spotters for truck drivers will have established the method and means of communication between truck driver and dock personnel such as verbal, hand signals and radios. Spanish/English language issues need to be effectively addressed.

To preventing crushing and struck by hazards between loading dock walls and moving trailers employees are prohibited from standing/working near the edge of the dock, when trailers are moving, or have the potential to move. This includes using a dock lock pole tool at the edge of the dock to secure and release "live load" trailers from the dock.

Spotters and other yard personnel will wear reflective clothing or vests to increase their visibility.

The dock positions will be well marked to help drivers' spot trailers more accurately. Lighting will be provided to aid in the driver's visibility.

*****Best Practice*** To help the driver line up on the dock, paint a yellow line along the path of the outside of the tire.**

Securing Trailers to the Dock

Trailers will be inspected for the following before any loading begins:

- Proper "seating" against the loading platform (Dock Bumpers)
- Docking plate secure, and properly in place
- Wheel chocks in place and secure

Trailer Floor Loading. The interior floor of trailers will be inspected for a safe and serviceable condition before loading begins. Trailer nomenclature plates or driver will be inspected/consulted to determine the safe load capacity before loading begins.

Perform a visual inspection of the trailer prior to driving a lift truck into it. Damaged and rotting floorboards are common in older trailers. Keep the dock and trailer areas clean and free of debris. Loading areas should be completely swept as required to keep area free from debris. Large pieces of debris such as broken pieces of pallets should be picked up immediately.

Ensure adequate clearance of loading equipment and materials when entering/exiting dock door and trailer.

Dock Levelers

Dock levelers provide a bridge to the trailer as well as a ramp to facilitate the transition in height from dock to trailer. Dock levelers are rated by weight capacity and by the service range. The service range also known as the height differential rates the safe range above and below dock level you can use the leveler to transition to the trailer height. Differences in trailer width, height, floor level and the recent popularity of air-ride suspensions are forcing more attention on the functionality of dock levelers and their ability to safely handle the variety of vehicles serviced. Dock levelers must return to the proper position after use.

The advantages in using automatic dock equipment with electronic controls include the ability to incorporate all of the equipment into signaling devices. Signaling devices such as signal lights will let your lift truck operators know that the restraint mechanism and the dock leveler are properly engaged signaling that it is now safe to enter the trailer, while at the same time signaling the truck driver that it is unsafe to pull away from the dock.

Dock levelers will be routinely maintained by personnel familiar with the hazards and operation of the dock levelers. (ANSI MH30 Series – Safety Labeling)

Portable Dock Plates

Portable dock plates shall be secured in position, either by being anchored or equipped with devices which will prevent their slippage or horizontal thrust. The dock plates will be strong enough to carry the load imposed on them. Handholds, or other effective means, will be provided on portable dock plates to permit safe handling.

Portable dock plates will be kept free of oil, grease and water. They will be stored in a safe place when not in use.

Securing Trailers

Computer Tool for Safety Assessment at Loading Dock Positive mechanical means to secure trucks or trailers to a loading dock is allowed provided the system is installed and used in a manner that effectively prevents movement of trucks and trailers during loading, unloading and boarding by hand trucks and powered industrial trucks.

Spotted Trailers

XYZ Company requires portable jack stands to be used in addition to the forward landing gear of spotted trailers when loading and unloading to prevent potential tipping. Also note that spotted trailers (dropped trailers) are more susceptible to trailer creep.

Preventing Creeping or Dock Slippage

Trailer creep (also known as trailer walk, dock walk) occurs when the lateral and vertical forces exerted each time a lift truck enters and exits the trailer cause the trailer to slowly move away from the dock resulting in separation from the dock leveler. Factors that affect trailer creep are the weight and speed of the lift truck and load, the grade of the drive the trailer is parked on, the softness of the suspension, the type of transition (dock levelers, dock boards) being used, and whether the trailer has been dropped off (spotted) or if it is still connected to the tractor. Apply Brakes and Chock Wheels.

Preventing Unending ("Pop-Up") or Gear Collapse

Install Jack Stand on uncoupled trailers and Chock Wheels.

Preventing "Unscheduled Departure" by the Driver

Wheel Chocks

Wheel chocks are wedge-shaped blocks placed in front of the rear wheels of a trailer to help prevent the trailer from moving away from the dock while the trailer is being loaded or unloaded.

OSHA regulations require the use of wheel chocks or other vehicle-restraining device when loading and unloading trucks and trailers. Depending on the surface conditions and type of chock being used chocks can sometimes slip thus reducing their effectiveness in preventing trailer movement. Also, requiring people to walk in between trailers to set and remove the wheel chocks creates additional safety issues. When using wheel chocks XYZ requires lift truck operators to verify the chocks are in place. We keep spare chocks on hand.

ICC Bar Vehicle Restraint Devices

The docks at XYZ are equipped with ICC bar type restraint system or "dock lock". These systems incorporate a device that engages the ICC bar (rear impact guard) on the rear of the trailer preventing it from moving away from the dock. These devices are hydraulically operated. ICC bar systems may not work with damaged ICC bars, lift gates, and low-boy trailers. If the ICC bar restraint is not operational or the trailer's ICC bar is damaged, we require the use of wheel chocks.

Installation of a dock lock for the trailer ICC bar (on back of trailer) that locks the trailer in place and indicates visually (red or green light indicator) current lock/unlock status of the trailer.

- Prohibiting employees from manually operating dock locks ("hands on"), or being in close proximity to them while in operation.

- Procedures to follow when dock locks will not release a trailer. Remove malfunctioning dock locks from service until proper assessment and maintenance is accomplished by qualified personnel.

- Determine cause(s) of and prevention methods for dock lock malfunction.

- Routinely inspect and maintain dock locks, assuring proper greasing and lubrication is performed and that they are kept free of debris.
- Train personnel on recognition of structural characteristics of trailers that may interfere with normal dock lock operation.

- Routinely inspect, maintain and replace dock bumpers, to facilitate proper alignment and securing of trailers in dock locks.

Forms of Lockout

Install a lock on air brake hoses of parked trailers being loaded/unloaded that assures truck driver of entering building to obtain key from shift supervisor (such as "The Salvo Process" or "Glad Hand") which will not allow air back into the trailer to release the trailer brakes, making it impossible for the trailer to be moved until released.

Wheel and ICC Bar restraints are a method of mechanically holding the trailer to the dock.

Install a pin lock on trailer (where cab hitches to trailer) that will mandate the driver to obtain a key from the shift supervisor.

Take the Truck Drivers' Ignition Key.

Administrative (less effective)

A system is established for notifying truck drivers when it is safe to enter and exit the dock area. Sample methods include:

- Don't allow truck driver in the cab
- Don't release the Driver's Paperwork until completed and verified that the process with the trailer finished
- Place a "STOP" sign – mounted on a movable post – in front of the truck
- Stop/go lights on the inside and outside of docks informing truck drivers and PIT operators when it is safe to enter and exit the dock and trailer areas and/or
- Dock doors are to be down when trailers are moving in and out of the dock

Entering/Exiting Trailers – Loading or Unloading Trailers

Lift trucks used to load/unload trailers are equipped with spotlights. Also dock mounted lights are used to supplement the lift truck lights or when manually loading/unloading trailers.

Do not allow pedestrians in trailers while a lift truck is loading/unloading. The likelihood of being crushed by a forklift is greater in tight spaces. Caution is advised when manually unloading/loading inside trailers with heavy, vertical, shifting product.

Caution is advised when using lift trucks to unload straight trucks (small delivery trucks). When loading/unloading a straight truck, ensure it has the capacity to handle the weight of the lift truck and loads. It is recommend using hand pallet jack rather than lift truck to unload straight trucks whenever feasible.

DOT's Cargo Securement Rule – 49 CFR 393- must be followed for identified cargo such as concrete pipe, metal coils, paper rolls, logs, and dressed lumber.

The Powered Industrial Vehicle should honk horn when exiting the trailer.

Releasing Trailer back to the Driver or Yard Jockey

A visual Inspection will be conducted by _____ to verify that all operations for that trailer are complete: dock plates/levelers removed, dock door closed, workers are clear, ICC restraint removed with proper signal lights displayed, wheel chock removed and then the completed paperwork is given to the truck driver or yard jockey. The truck driver will honk horn prior to pulling away.

Inspections, Reporting and Maintenance Procedures

Regular maintenance and care of dock equipment is essential for economy, utilization, and most importantly, employee safety. A preventative maintenance and safety inspection program will be established based on manufacturer and OSHA guidelines. Periodic self inspections will be conducted by _____.

The dock bay and driving surface shall be kept free of potholes, well drained, and free of ice and snow. Blacktop surfaces will be monitored during excessive heat spells for possible collapse or deterioration.

All mechanical equipment installed, will be maintained and used as recommended by the manufacturer. Any damaged mechanical equipment will be removed from service immediately. Dock Plates and Dock Levelers will be inspected and maintained as described in ANSI MH30.2.

Only authorized and trained maintenance workers will be allowed to work on a dock lock when it will not release a trailer. The procedure will include effective communication between dock personnel, yard personnel and truck drivers. Spanish/English language issues need to be effectively addressed.

Dock bumpers will be of sufficient length to prevent the lowest of trailers from striking and damaging the building. The dock seals fit tightly and are designed to fit all sizes of trailers. Seals will be replaced when damaged. The widths of the dock doors are wide enough to accommodate the larger trailers.

Damage to the building, flooring, and driving surfaces will be corrected. Caution paint and other warnings will be visible and legible.

Overhead doors will be tested periodically to ensure that the automatic reversing sensor is operational.
Any hazard recognized shall be reported and tracked to completion per XYZ's company policy.
All inspection deficiencies will be noted and tracked to completion.

Training of Personnel

Train all affected employees (management, dock workers, yard jockeys, maintenance, and misc. personnel) on all established safety procedures and recognition of hazards. Communicate procedures to all employers on site, including contract truck drivers.

Only trained and authorized personnel will be allowed in the dock area. Employees will be thoroughly trained in safe dock practices. Maintenance Personnel will be trained in the hazards of the specific dock equipment.

Train dock personnel on recognition of structural characteristics of trailers that may interfere with normal dock lock operation.

Train all affected employees and maintenance personnel on "dock lock malfunction" as described above and proper lockout procedures.

Use job safety hazard analysis to train employees for the types of tasks dock and yard employees perform and determine the extent of their exposure to hazards.

Documentation of training will be maintained by the safety coordinator.

Housekeeping for Loading Docks

All receiving areas and loading dock surfaces shall be kept clean, orderly, sanitary, and free of known hazards. Debris such as strapping, banding and broken pallet will be picked up immediately.

The floor surfaces of these areas shall be maintained in a clean and, so far as possible, a dry condition. Where wet conditions exist, drainage shall be maintained.

To facilitate safety, dock areas shall be kept free from protruding nails, splinters, holes, or loose boards or other hindrances that could cause tripping or other hazards.

Environmental

Lighting conditions will be considered for all times of the day and seasons. Dark or low lighting conditions can be as difficult to see as with bright sunshine or glare. Particular care is needed

when transitioning between the bright and dark conditions. Lighting will be adequate and appropriate for inside and outside the dock area along with inside the trailer.

Extreme summer and winter weather can create wet, icy or snow covered docks. Water can back up due to frozen, blocked, or overwhelmed (down pour) drainage systems. Potholes result due of extreme weather. Asphalt can give way in excessive heat.

Hazardous atmospheres can be caused by semi-truck and powered industrial vehicle (PIV) exhaust. Don't allow trucks to idle while loading (drop trailer and idle elsewhere). The internal combustion PIVs will be tune-up use tailpipe emissions testing on a quarterly basis.

Working/Walking Surfaces at Dock Areas and Dock Edge

To prevent falling or stepping off the dock edge, the dock doors will be closed when not in use to prevent "Distracted Walking" or "Distracted Driving". When docks are not being used to load/unload trucks, the dock doors must be closed to comply with fall protection policies. Screens, railing, or barriers may be used in place of the dock doors. Covers and/or guardrails shall be provided to protect personnel from fall hazards in dock areas. Dock areas will be properly guarded, covered, cordoned off, or marked, to prevent injury.

Stairs will be provided as access into the building and personnel will not be allowed to go through the dock doors to get in or out of the building. "Dock Jumping" is prohibited. Do not climb on docks or place any part of your body outside of the dock door. If you need to go down into the dock area make sure you use the stairs provided. Stairways and/or access ladders in dock areas will be properly installed and maintained.

Floor openings in truck receiving locations will be covered with a grid or floor hole cover when not in use. (Bottom dump bulk material trucks)

Do not back the PIV towards the edge of the dock.

Ramps and Passageways in Dock Areas

Where mechanical handling equipment is used, sufficient safe clearances will be maintained for ramps, aisles, at loading docks, through doorways and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in ramps and aisles that could create a hazard. Concrete curb follows along the ramp edge to prevent driving off the ramp.

Permanent ramps, aisles and passageways shall be appropriately marked.

*****Best Practice*** Window in the dock door to see if a trailer is backed in**

*****Best Practice*** Flip Up Gate available to prevent back overs by PITs**

*****Best Practice*** Paint dock edges bright yellow to highlight the edge as warning**

Emergencies

Along with emergencies that could occur in the facility, dock personnel will be trained in dock specific emergencies such as spills, hazardous materials in trailers, propane leaks, carbon monoxide, or dealing with crushing injuries. (See Facility's Emergency Action Plan 1910.38)

Man Made	Natural
Hazardous Materials	Extreme Cold, Snow, Ice
Accident	Fire from Lightning
Fire: Chemical or Combustible Material	Flood
Major Gas or Water Main Breaks	Earthquake, Earth Slide, Mud Slide
Pipeline Explosion	Storm Surge
Terrorism - Vandalism	Tornado, Hurricane
Strikes	High Winds, Sand and Dust Storms

Dock personnel will be trained in and have ready access to the Emergency Response Guidebook http://www.tc.gc.ca/canutec/en/guide/ergo/erg2008eng.pdf to ensure that they are aware of the contents of incoming trucks and be aware of what to do in an emergency.

MSDS (Material Safety Data Sheets) for chemicals being shipped in are to be on file at this facility or accompany the shipment of the chemical.

Emergency exit doors will be kept free of any obstacles, including material being loaded and unloaded, at all times. Any employee finding an emergency door blocked should immediately report the condition to _____ for correction and/or remove the obstacle. Exit lights and signs will also be maintained in proper condition at all times and immediately reported if deficient.

Map for the Dock area will point out specific locations of hazards or emergency equipment such as fire extinguisher, emergency lighting, alarms, eye wash and spill kit. Piping for water, gas, chemicals, etc. will be clearly marked and located in a manner that would allow adequate clearance for the load. Evacuation routes clearly identified.

General Rules

See Company's Powered Industrial Vehicle or Truck Policy for more specific rules for operation of vehicles such as requiring the use of seat belts, horn and mirror use.

The dock area will be clear of stored material and other obstructions. Debris will be picked up immediately. Safe standing areas and walking routes have been designated for visitors.

Speed limit on the dock and surrounding area is _____ mph.

Limit the stacked height of materials in staging areas, especially if pedestrians will be working around the material. Also leave sufficient access aisles between rows of staged material if employees may be required to inspect or otherwise access the material.

Special attention should be given when large loads are being handled that may obstruct the view of the lift truck operators. While normally a lift truck operator would be driving in reverse with these loads, this option is not available when loading trucks. Both lift truck operators and pedestrians working in the loading area must be aware of this.

References

Computer Tool for Safety Assessment at Loading Dock
the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)
http://www.irsst.qc.ca/en/_outil_100044.html

FMCSA/DOT Cargo Securement Rule: 2002 49 CFR 393.106
http://www.fmcsa.dot.gov/rules-regulations/truck/vehicle/cs.htm

National Safety Council's Motor Fleet Safety Manual, Chapter 7 "Employee Safety Program" and Chapter 14 "Job Safety Analysis", 4th Edition, 1996, 1121 Spring Lake Drive, Itasca, IL 60143-3201, www.nsc.org

Emergency Response Guidebook-2008 Developed by: Transport Canada (TC), the U.S. Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico (SCT)

http://www.tc.gc.ca/canutec/en/guide/ergo/erg2008eng.pdf

Loading Dock Equipment Manufacturers Product Section of The Material Handling Industry of America: ANSI MH30 Series of Standards:

www.mhiastore.org **or** www.mhia.org

OSHA References:

OSHA CPL 04-00 (LEP 002) Local Emphasis Program for Powered Industrial Vehicles – Region V

03/07/1996 - Use of seat belts on powered industrial trucks
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22105

CPL 02-01-028 Compliance Assistance for the Powered Industrial Truck Operator Training Standards
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=2277

CPL 02-01-030 Chocking of Tractor Trailer under the Powered Industrial Truck Standard
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1533

OSHA STD: 1910.30(a): Commercial Standard CS202-56 (1961) "Industrial Lifts and Hinged Loading Ramps"

http://ts.nist.gov/Standards/Conformity/upload/wdrw-cs202-56.pdf

Powered Industrial Trucks. - 1910.178

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Revision History

I. Document Number	Revision	Revision Date	Revised By	Reason

Disclaimer

- This information has been developed by an OSHA Compliance Assistance Specialist and is intended to assist employers, workers, and others as they strive to improve workplace health and safety. While we attempt to thoroughly address specific topics *or hazards*, it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in a presentation of this nature. Thus, this information must be

understood as a tool for addressing workplace hazards, rather than an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. Likewise, to the extent that this information references practices or procedures that may enhance health or safety, but which are not required by a statute, regulation, or standard, it cannot, and does not, create additional legal obligations. Finally, over time, OSHA may modify rules and interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov.

This document is designed to assist dock managers in the development, maintenance, and updating of a comprehensive dock safety program and to provide assistance in finding useful safety information.