



# OSHA REGIONAL INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

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**DIRECTIVE NUMBER:** BOS-CPL-04-00-027

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**SUBJECT:** Regional Local Emphasis Program for Powered Industrial Trucks

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**REGION:** Boston (BOS)

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**SIGNATURE DATE:** 09/30/2024

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**EFFECTIVE DATE:** 10/01/2024

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## ABSTRACT

**Purpose:** This directive renews a regional local emphasis program (LEP), that has been in place since 2002. The LEP for Powered Industrial Trucks is intended to reduce the incidence of fatal and serious injuries related to powered industrial truck operation in both general industry and construction.

**Scope:** This instruction applies to Federal OSHA, Boston Region jurisdiction.

**References:** [OSHA Instruction CPL 02-00-164, Field Operations Manual \(FOM\) 04/14/2020.](#)

[OSHA Instruction CPL 04-00-002, Procedures for Approval of Local Emphasis Programs 11/13/2018.](#)

[OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under the Appropriations Act, 07/18/2024](#), (including annually updated Appendix A).

Title 29, Code of Federal Regulations, Parts 1910 and 1926.

**Cancellations:** OSHA Regional Instruction CPL 04-00-023G, Local Emphasis Program for Powered Industrial Trucks, October 1, 2019.

**State Impact:** No impact

**Action Offices:** Federal OSHA Boston Region, Area and District Offices

**Originating Office:** Boston Regional Office

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By and Under the Authority of

Jeffrey A. Erskine  
Acting Regional Administrator

## **Executive Summary**

This instruction renews Local Emphasis Program (LEP) for Powered Industrial Trucks for five-years. This LEP has been in place since 2002 and continues to provide guidance and direction for effective targeting, enforcement and outreach regarding hazards associated with the operation of powered industrial trucks in Boston Region, New England.

## **Significant Changes**

None

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I. Purpose.

This instruction is a five-year renewal of the local emphasis program (LEP) for powered industrial truck operations. This region-wide program was established in 2002 to reduce injuries and fatalities related to powered industrial trucks. Powered Industrial Truck (PIT) operations will be inspected on all programmed and unprogrammed inspections in General Industry and Construction. All programmed inspections will include a review of powered industrial truck operations. Area offices will normally conduct inspections for all complaints, formal or non-formal, which contain allegations of powered industrial truck hazards, unless there are significant resource implications. In addition, all unprogrammed inspections will be expanded to include powered industrial truck operations, if applicable.

II. Scope:

This instruction applies to Boston Region Federal Area and District Office jurisdictions.

III. Action

The Area Director will ensure area office staff are familiar with the contents of this instruction and follow guidelines and procedures described.

IV. Effective Date: October 1, 2024

V. Expiration: This instruction expires September 30, 2029.

VI. Cancellations:

OSHA Regional Notice CPL 04-00-023G, Local Emphasis Program for Powered Industrial Trucks, October 1, 2019.

VII. References:

- A. Title 29, Code of Federal Regulations, Part 1910 and 1926.
- B. [OSHA Instruction CPL 02-00-164, April 14, 2020, Field Operations Manual \(FOM\).](#)
- C. [OSHA Instruction CPL 04-00-002, November 11, 2018, Procedures for Approval of Local Emphasis Programs and Experimental Programs.](#)
- D. [OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under the Appropriations Act, July 18, 2024,](#) (including annually updated Appendix A).
- E. Bureau of Labor Statistics, Fact Facts, Occupational Injuries, Illnesses, and Fatalities Involving Forklifts, 2011-2017." <https://www.bls.gov/iif/factsheets/fatal-occupational-injuries-forklifts-2017.htm> (retrieved September 2024).

- F. ANSI (American National Standards Institute) B56.1-1969, Safety Standards for Powered Industrial Trucks and ASME (American Society of Mechanical Engineers) B56.1-1993, Safety Standard for Low Lift and High Lift Trucks.
- G. ANSI/ITSDF (American National Standards Institute/Industrial Truck Standards Development Foundation) B56 Standards.

## VIII. Background:

Powered industrial trucks continue to be a significant source of serious and fatal injuries to workers. OSHA's Severe Injury Reports captures employer reported incidents of worker hospitalizations and amputations. Data from 2015 through the end of 2023, indicates that "forklifts, order pickers platform-truck powered" are one of the top five sources of injury. [Source: <https://www.osha.gov/severe-injury-reports>, retrieved September 2024]

From 2019 to 2024, Boston Region investigated 13 forklift related fatalities: four employees crushed by loads, striking a building column, striking an overhang and tipping over while not wearing seatbelt and crushed, crushed by forklift during repair of hydraulic line, crushed by mast, pinned by mast, struck by falling object from rack and three falls from heights. One forklift fatality affects countless people: co-workers, family and the community at large. Safe operation of forklifts in accordance with 29 CFR 1910.178 could have prevented these losses.

### A. Bureau of Labor Statistics, Fact Sheet, Occupational Injuries, Illnesses and Fatalities involving Forklifts, 2011-2017

BLS estimates that 60,000 injuries and illnesses involving forklifts occurred from 2011-2017. From 2011 to 2017, 614 workers lost their lives in forklift related incidents and more than 7,000 nonfatal injuries with days away from work occurred every year. In 2017, 74 U.S. workers were killed in incidents involving forklifts. Although this number is still high, the fatality rates for forklift decreased 18% from 2016. According to 2017 data from the U.S. Department of Labor's Bureau of Labor Statistics, of the 74 fatal work injuries involving forklifts in 2017, the events that led to the most workplace deaths were non-roadway incidents (20), struck by powered vehicle, non-transport cases (13), struck by falling object cases (12), falls to lower level (11), and pedestrian vehicular incidents (9).

### B. Definition

Powered industrial trucks are used in almost all industries. They are used to move, raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers. OSHA's Powered Industrial Truck Standard, 29 CFR 1910.178, contains requirements related to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks. ASME B56.1-1969, Safety Standard

for Low Lift and High Lift Trucks, which is incorporated by reference in 1910.178, defines powered industrial trucks as “mobile, power propelled trucks used to carry push, pull, lift, stack, or tier material.”

### C. Hazards

Each of the different types of powered industrial trucks has its own unique characteristics and inherent hazards. Characteristics of powered industrial trucks that affect safe truck operation are: the truck's tendency to become unstable; its ability to carry loads high off the ground; and its characteristic mode of steering, i.e., with the rear wheels while being powered by the front wheels. Moving loads upward, downward, forward, and backward causes a shift of the center of gravity and can adversely affect the vehicle's stability. When a load is raised or moved away from the vehicle, the vehicle's longitudinal stability is decreased.

Workplaces, where powered industrial trucks are used, present a variety of different hazards such as rough, uneven, or sloped surfaces; unusual loads; hazardous areas; narrow aisles; blind spots; and pedestrian traffic or employees working close to the path of travel. Some hazardous work practices relate to all trucks, including driving at excessive speed, poor loading, and carrying unauthorized passengers.

Many accidents have occurred because of unsafe truck operation. For example, employees have fallen from trucks while using them to change light bulbs on overhead fixtures or riding on the forks to manually retrieve items from high racks. In addition, accidents have occurred when an operator has attempted to drive with an obstructed view in the direction of travel and has run into another employee.

Poor truck maintenance can also contribute to accidents resulting in serious injuries or death from brake failure, ruptured hydraulic lines and exposure to carbon monoxide.

### D. Boston Region Historical Data and Statistics

In Boston Region, powered industrial truck hazards are a major source of injuries and fatalities to operators and to employees working in the area of powered industrial trucks. A review of Boston Region statistics from 1992 through 2003 indicated that there were 40 powered industrial truck-related fatalities which occurred in 30 SICs (Standard Industrial Classifications). From FY13-FY18 there were 16 fatalities related to powered industrial trucks. The fatalities occurred in all six New England states and occurred in Agriculture, Construction, Manufacturing, and Transportation. The 40 powered industrial truck-related fatalities accounted for 8% of all the fatalities in the Boston Region from 1992 through 2003. Thirty-six of the fatalities occurred in General Industry, three occurred in Construction, and one occurred in Agriculture. For comparison, for the period between 2013 and 2018, there were 16 powered industrial truck-related fatalities which accounted for 6% of all the fatalities in the Boston Region. Eight of the fatalities occurred in General Industry, eight occurred in Construction, and there were no fatalities in Agriculture.

While the occurrence of a work-related fatality is never acceptable, it is significant to note that the annual rate of occurrence of powered industrial truck-related fatalities has been reduced by one-half in Boston Region since the initiation of the enforcement phase of the LEP (from 3.3 to 1.5). The number has reduced from 40 fatalities from 1992-2003 to only 16 from 2013-2018 (*for the period between 2004 and 2012, reliable data was not available*).

This LEP was developed to ensure that powered industrial truck operations are evaluated on all inspections to determine if the employer is in compliance with all relevant OSHA requirements and to ensure that employees are protected from the hazards related to powered industrial truck operation.

IX. Procedures: The conduct of inspections shall adhere to the following:

- A. All inspections conducted in general industry and construction are covered by this instruction.
- B. During all inspections, compliance officers shall determine if powered industrial trucks are utilized at that worksite. If they are, the compliance officer will expand the inspection to cover those operations.
- C. Area offices shall normally conduct an inspection for all complaints, formal or non-formal, which contain allegations of powered industrial truck hazards unless there are significant resource implications.
- D. If an employer refuses to allow the compliance officer to expand an inspection, being conducted under this program, to cover powered industrial truck operations, a warrant shall be sought in accordance with procedures in the current FOM for handling such refusals.
- E. Area Directors shall ensure that compliance officers are sufficiently qualified and trained to conduct this type of inspection.

X. Recording in OIS:

Current instructions for completing the OIS forms shall be applied when recording inspections under this LEP. The OIS inspection form, investigation form, unprogrammed activities form shall be marked "FORKLIFT" under the Local Emphasis Program dropdown menu under the Emphasis Program section

XI. Safety and Health considerations for Compliance Officers.

Inspections under this LEP are to be conducted by Compliance Officers who have received the necessary training on Powered Industrial Truck hazards. Personal protective equipment to be worn by CSHOs during on-site inspections shall include, as a minimum, safety glasses, head protection, and safety shoes or boots. In addition, high-visibility



clothing (minimum Class II) shall be worn by the CSHO as needed and during construction inspections during the walk-around portion of the inspection.

XII. Outreach and Compliance Assistance:

Initial Outreach: This LEP was first issued in 2002, a period of initial outreach for the 2024 renewal is unnecessary.

Ongoing Outreach: Each area office will develop annual goals for outreach on powered industrial trucks and if the office has a compliance assistance specialist will include these goals in their compliance assistance plan.

The 21(d) Consultations programs in affected states have been participating in outreach initiatives associated with this LEP since the effective date and will do so going forward if appropriate.

Boston Region Whistleblower Protection Program will conduct at least one outreach activity with a primary focus of Section 11(c) of the OSH Act rights annually.

XIII. Evaluation.

The Region Office will complete a program report at the midpoint and completion of the LEP. The midpoint assessment will take place no later than September 30, 2027. The midpoint and final program report will include quantitative and qualitative measures, including recommendations regarding the continuation of this LEP. In addition to activity and impact measures, the report will include the following:

- Number of employees and/or establishments impacted by outreach activities;
- Number of inspections where powered industrial truck violations were found, and number and percent violations that are serious, willful, or repeat;
- Number of employees removed from exposures;
- Number of hazards abated;
- Annual number and rate of powered industrial trucks fatalities compared to the previous year's statistics (if available);
- A three-year rolling average of percent of occupational fatalities due to powered industrial trucks;
- The number of complaints concerning powered industrial trucks received annually at each area office compared with prior years.

## **Appendix A: PIT Checklist**

*This checklist is intended to provide compliance assistance to employers and compliance officers and it is not intended to be a replacement for a comprehensive review of the OSHA standards nor does compliance with this checklist imply any exemptions from inspections or citations.*

Do industrial trucks acquired after Feb. 15, 1972 meets the design requirements in "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969?"

29 CFR 1910.178 (a) (2)

Has the manufacturer provided written approval for modifications that affect the capacity and safety operations of the equipment?

29 CFR 1910.178 (a) (4)

Do industrial trucks have labels designating approval for use in various hazardous and/or non-hazardous locations?

29 CFR 1910.178 (a) (3) and (7)

In construction, 1926.602(c)(1)(vi), all industrial trucks in use shall meet the applicable requirements of design, construction, stability, inspection, testing, maintenance, and operation, as defined in American National Standards Institute B56.1-1969, Safety Standards for Powered Industrial Trucks.

### ***Designations***

Are supervisors and procurers of equipment aware of the eleven designations of industrial trucks or tractors (D, DS, DY, E, ES, EE, EX, G, GS, LP, and LS)?

29 CFR 1910.178 (b)

### ***Designated Use of Requirements***

Are supervisors and operators knowledgeable about the use of industrial trucks in various locations?

29 CFR 1910.178 (c) (1)

### ***Fuel Handling and Storage Requirements***

Is the storage and handling of liquid fuels in accordance with NFPA Flammable and Combustible Liquids Code (NFPA No. 58-1969)?

29 CFR 1910.178 (f) (1)

Is the storage and handling of liquefied petroleum gas fuel in accordance with NFPA Storage and Handling of Liquefied Petroleum Gases (NFPA No.58-1969)?  
29 CFR 1910.178 (f) (2)

### ***Changing and Charging Storage Batteries***

Are battery-charging installations located in areas designated for that purpose?  
29 CFR 1910.178(g) (1)

Are facilities provided for flushing and neutralizing spilled electrolyte?  
29 CFR 1910.178 (g) (2)

Are facilities provided for adequate ventilation for dispersal of fumes from gassing batteries?  
29 CFR 1910.178 (g) (2)

Is proper handling equipment (conveyor and hoists) provided for handling batteries?  
29 CFR 1910.178 (g) (4)

Is a carbon filter or siphon provided for handling electrolyte?  
29 CFR 1910.178 (g) (6)

Is care taken to ensure that vent caps are functioning when charging batteries?  
Note: The battery (or compartment) cover(s) shall be open to dissipate heat.  
29 CFR 1910.178 (g) (9)

Is smoking prohibited in the charging area?  
29 CFR 1910.178 (g) (10)

Are precautions taken to prevent open flames sparks, or electric arcs in battery-charging areas?  
29 CFR 1910.178 (g) (11)

Are tools and other metallic objects kept away from the tops of uncovered batteries?  
29 CFR 1910.178 (g) (12)

### ***Dockboards (bridge plates)***

Are portable and powered dockboards strong enough to carry the load imposed on them?  
29 CFR 1910.30 (a) (i)

Are portable dockboards secured in position, either by being anchored or equipped with devices that will prevent slippage?  
29 CFR 1910.30 (a) (2)

Are handholds or other effective means provided on portable dockboards to ensure safe handling?  
29 CFR 1910.30 (a) (4)

## ***Operator Training***

Are only trained and authorized operators permitted to operate a powered industrial truck? 29 CFR 1910.178 (l). 1926.602(d) Powered industrial truck operator training, the requirements applicable to construction work under this paragraph are identical to those set forth at §1910.178(l)

## ***Truck Operations***

Is it prohibited for a person to stand or pass under the elevated portion of any truck, whether loaded or empty?

29 CFR 1910.178 (m) (2)

Are unauthorized personnel prohibited from riding on powered industrial trucks?

29 CFR 1910.178 (m) (3)

Is it prohibited for arms or legs to be placed between the uprights of the mast or outside the running lines of a truck?

29 CFR 1910.178 (m) (4)

Is it required for load-engaging means to be fully lowered, controls neutralized, power shut off, and brakes set when a powered industrial truck is left unattended?

29 CFR 1910.178 (m) (5) (i)

Is it required to maintain a safe distance from the edge of ramps or platforms while on any elevated dock, platform, or freight car?

29 CFR 1910.178(m) (6)

Is an overhead guard used as protection against falling objects?

29 CFR 1910.178 (m) (9)

Is a load backrest extension used whenever necessary to minimize the possibility of the load or part of it from falling backward?

29 CFR 1910.178 (m) (10)

Are only approved industrial trucks used in hazardous locations?

29 CFR 1910.178 (m) (11)

## ***Traveling***

Is it required that all traffic regulations be observed, including authorized plant speed limits? 29 CFR 1910.178 (n) (1)

Is it required to yield the right of way to ambulances, fire trucks, or other vehicles in emergency situations?

29 CFR 1910.178 (n) (2)

Is it required that drivers not pass other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations?

29 CFR 1910.178 (n) (3)

Is it required that drivers slow down and sound the horn at cross aisles and other locations where vision is obstructed?

29 CFR 1910.178 (n) (4)

Is it required that railroad tracks shall be crossed diagonally, wherever possible?

29 CFR 1910.178 (n) (5)

Is it required that when ascending or descending grades that exceed 10 percent loaded trucks be driven with the load upgrade?

29 CFR 1910.178(n) (7) (i)

Is it required that on all grades the load and load-engaging means be tilted back, if applicable, and raised only as far as necessary to clear the road surface?

29 CFR 1910.178 (n) (7) (iii)

Is it required that under all travel conditions the truck be operated at a speed that will permit it to stop in a safe manner?

29 CFR 1910.178 (n) (8)

Is stunt driving and horseplay prohibited?

29 CFR 1910.178 (n) (9)

Are dockboards or bridge plates properly secured before they are driven over?

29 CFR 1910.178 (n) (11)

Is it required that elevators be approached slowly, and then entered squarely after the elevator car is properly leveled?

29 CFR 1910.178 (n) (12)

Is it required that motorized hand trucks enter elevators or other confined areas with load end forward?

29 CFR 1910.178 (n) (13)

### ***Loading***

Are drivers instructed that only stable or safely arranged loads be handled?

29 CFR 1910.178 (o) (1)

Are drivers instructed that only loads within the rated capacity of the truck shall be handled?

29 CFR 1910.178 (o) (2)

Is a load-engaging means placed under the load as far as possible?

29 CFR 1910.178 (o) (5)

Are drivers required to use extreme care when tilting the load forward or backward, particularly when high tiering?

29 CFR 1910.178 (o) (6)

### ***Operation of the Truck***

Are personnel instructed that fuel tanks not be filled while the engine is running?

29 CFR 1910.178 (p) (2)

Is it required that spillage of oil or fuel be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting the engine?

29 CFR 1910.178 (p) (3)

Is it prohibited for a truck to be operated with a leak in the fuel system until the leak has been corrected?

29 CFR 1910.178 (p) (4)

Is it prohibited for open flames to be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks?

29 CFR 1910.178 (p) (5)

### ***Maintenance of Industrial Trucks***

Is it required that no repairs be made in Class I, II, and III locations?

29 CFR 1910.178 (q) (2)

Is it required that repairs to the fuel and ignition systems of industrial trucks, which involve fire hazards, be conducted only in locations designated for such repairs?

29 CFR 1910.178 (q) (3)

Is it required that trucks in need of repairs to the electrical system have the battery disconnected before such repairs are made?

29 CFR 1910.178 (q) (4)

Is it required that industrial trucks not be altered without the manufacturer's approval?

29 CFR 1910.178 (q) (6)

Is it required that industrial trucks be examined before being placed in service?

29 CFR 1910.178 (q) (7)

Is it required that water mufflers be filled daily or as frequently as necessary to prevent depletion of the water supply below 75 percent of the filled capacity?

29 CFR 1910.178 (q) (8)

Is it required that vehicles with mufflers and screens or other parts that may become clogged not be operated while such screens or parts are clogged?

29 CFR 1910.178 (q) (8)

Is it required that any vehicle that emits hazardous sparks or flames from the exhaust system be immediately removed from service and not returned to service until the cause for the emission of such sparks and flames has been eliminated?

29 CFR 1910.178 (q) (8)

Is it required that when the temperature of any part of any truck is found to exceed its normal operating temperature, thus creating a hazardous condition, the vehicle be removed from service and not be returned to service until the cause for such overheating has been eliminated?

29 CFR 1910.178 (q) (9)