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The New Powered Industrial Truck Operator Training Requirements—What Safety Professionals Should Know

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The new OSHA Training Regulation for Operators of Powered Industrial Trucks is very different from the old standard. Some of the changes and background information on important areas of compliance are discussed below.

Date for Compliance

The written training program must have been completed by March 1, 1999. Current powered industrial truck operators must be trained by December 1, 1999. Operators hired after December 1, 1999, must be trained prior to operating equipment.

The most significant change is that the training must be site specific and truck specific. The use of a one-size-fits-all training program would not comply with the new training regulations and would do little to educate the operator in the way that the load and the work environment can affect the trucks ability to remain under the control of the operator. In the final rule published in the Federal Register on December 1, 1998, OSHA addresses this issue by listing several of the differences between powered industrial trucks. At the end of the list, OSHA states "It is not possible to identify all hazards that are encountered in all industrial truck operations. Accordingly, one cannot develop a single 'generic' training program that covers, in detail, all hazards of all powered industrial trucks and all workplaces."

Industries Affected by the New Regulation

All industries regulated by 29 CFR parts 1910, 1915, 1917, 1918, and 1926—essentially every powered industrial truck in the United States are affected.

Definition of a Powered Industrial Truck

The term "powered industrial truck" is defined in ASME B56.1 (formerly ANSI B56.1) as a "mobile, power propelled truck used to carry, push, pull, lift, stack, or tier material." Forklifts, liftrucks, paper roll clamp trucks, and walkie low lifts are just a few examples. Vehicles that are used for earth moving and over-the-road hauling are excluded.

Fork Attachment Adaptation, Operation, and Use Limitations

The trainer must consider any "fork attachment adaptation, operation, and use limitations" [1910.178 (l)(3)(i)(G)] in the specific training program. There are numerous fork attachments and adaptations, produced by hundreds of world-wide companies—from simple side shifters to complex multi-function paper roll clamps, push pulls, fork positioners, carton clamps, rotators, drum clamps, fork mount booms, barrel dumpers, etc. The list is endless, including countless sizes, capacities, operations, and use limitations. The vast majority of powered industrial trucks use some type of fork attachment or adaptation. The operation and use limitations will vary greatly depending on the type and model of attachment that is used. As examples, a Cascade model 20D-CC-01A will have a capacity of 2,000 pounds at a 15" Load Center, a Cascade model 20D-CC-35A will have a capacity of 2,000 pounds at a 24" Load Center, a Paper Roll Clamp Cascade model 50D-RC-01A will have a capacity of 4,500 pounds at a 26" Load Center, and a Cascade model 50D-RC-02A will have a capacity of 4,000 pounds at a 30" Load Center. All fork attachments, adaptations, operation, and use limitations will effect the net capacity of the powered industrial truck.

Vehicle Capacity and Vehicle Stability

[1910.178 (l)(3)(i)(H & I)] The trainer must also specifically train the operator on the vehicle capacity and vehicle stability of each powered industrial truck. A powered industrial truck's lifting capacity is based on the

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truck's Longitudinal and Lateral stability—in laymen's terms, how much weight the powered industrial truck can lift, how long the can load be, the composition of the load weight, how high the load can be lifted before the capacity is reduced, ground/floor conditions, etc. The equipment installed at the factory or by the distributor or other modifications (fork attachment adaptation) will determine the truck's net lifting capacity. For example, a common fork lift that can be rented at your local distributor will have a 5,000 pound capacity chassis at a 24" Load Center and a 187" TSU (triple stage upright) mast with a Class II side shifter. The net capacity of the Nissan C50 will be 4,400 pounds at a 24" Load Center to a height of 187 inches; a similarly equipped Nissan P50 will have a net capacity of 3,975 pounds. Although these trucks come from the same manufacturer and each has a chassis capacity of 5,000 pounds, the net capacity will differ with different equipment—cushion or pneumatic style; two, three, or four stage mast; make and model of side shifter. Other factors would be a different manufacturer, height the load can be lifted, tire configuration, load center, etc.

Load Center

Most people believe that all you need to do is look at the capacity tag to determine the load center. Unfortunately, many capacity tags are not changed when the lift is modified with any of the above. Most tags, if correct, only indicate the capacity at a given load center at a maximum elevation and not when the capacity starts to change—if the Load Center of the load is further from the truck than designed, the capacity of the truck will change.

Surface Condition

[1910.178 (l)(3)(ii)(A)] The type/condition of the surface needs to be covered in the training since different types of lifts will have different gradeability, ground clearance, and suspension systems. These differences can cause the truck to be down-rated when operated on different floor and ground conditions resulting in reduced lateral stability and stopping ability. Some powered industrial trucks are designed to operate only on smooth floors. An example is a Reach Truck on uneven floors where the truck becomes unstable and the drive tire may leave the ground, making stopping next to impossible.

Composition of Loads

[1910.178 (l)(3)(ii)(B)] is a major concern. This is what determines the Load Center of any load. Does the load start off with a 24" Load Center but move to 30" when the operator steps on the brakes? The type of material that is being handled and how the load is placed can make the Load Center of the load change. When the Load Center changes, the Longitudinal stability decreases and the lift can become unstable.

Narrow Aisles

[1910.178 (l)(3)(ii)(C & E)] All lift trucks have a set space requirement for them to operate safely—making turns, stacking, unstacking material. The operator needs to know the safety operating distances in order to get in and out of tight areas without hitting something or someone. Bent racks and damaged product are indications that the operator may not have had safe operating clearances or the operator may not be trained/evaluated in safe operations ("right angle stack" positioning of the truck).

Refueling & Recharging

[1910.178 (l)(3)(i)(K)] The trainer needs to address the type of fuel or battery (wet or dry) system and how the operator should inspect it as part of the daily inspection. The operator should also be instructed in how to charge the batteries or how to change/fill LP tanks, if that will be part of the operator's duties.

Other regulatory required subject areas that the trainer must include in the operators' training program are operating limitations [1910.178 (l)(3)(i)(L)], vehicle inspection [1910.178 (l)(3)(i)(J)], and work related topics [1910.178 (l)(3)(ii)(A-F)].

The National Electronic Injury Surveillance Systems (NEISS) reported in

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1985 that there were approximately 34,000 powered industrial truck accidents where emergency room treatment was needed. This is not surprising simply because operators of powered industrial trucks have never been educated on the most important area of truck operation—***how to keep the wheels on the ground.*** How and when does the truck lose its ability to remain stable?

Many factors contribute to the safe operation of a powered industrial truck. It is the employers responsibility to comply with the most misunderstood part of the regulation, 1910.178 (l)2(iii) "All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence." This part of the standard has been misquoted and misunderstood because it does not clearly state what "knowledge, training, and experience" is necessary. A trainer should have a complete understanding of lateral stability and longitudinal stability as well as the other important areas required by the standard for the specific powered industrial truck that the training will be conducted on. An understanding of related standards (1910.176, 1910.184, NFPA 58 & 505, ASME B56.1) would also be helpful. A trainer with little experience in powered industrial truck operations and comprehensive on-site training will result in noncompliance and limited results. ■

CPCUs on the Move

The CPCU Society, and the Loss Control Section Committee in particular, would like to take this opportunity to thank **Garry W. Hundley, CPCU,** for his many years of service as an important member of the committee. His increasing responsibilities at Schirmer Engineering Corp. in Atlanta, GA, have recently compelled him to resign from this position, but his significant contributions over the years are gratefully appreciated.

Gary Nesbit, CPCU, CSP, ARM, ALCM, joins Buffets, Inc. as the new corporate director of risk management and benefits. Before joining Buffets, Inc., Nesbit was the national director of risk consulting services for The St. Paul Insurance Company's national accounts unit. Nesbit is responsible for all property and casualty programs, third-party claims administration, and employee benefit programs. Buffet, Inc. is a nationwide restaurant company with more than 380 restaurants and employs 28,500 people, with revenues of approximately $1 billion. ■