

In January 2017, a series of rules and regulations promulgated by the U.S. Occupational Safety and Health Administration (OSHA) pertaining to walking-working surfaces and fall protection standards were enacted. The rule affects a wide range of workers, including warehouse workers. Specific to warehouse workers, new rules pertaining to loading dock equipment were enacted. The new rule specific to loading dock equipment is outlined in 29 CFR 1910.26, "Dockboards." The new rules impose new requirements on employers who operate loading docks to either equip dockboards with run-off guards or to demonstrate that there is no hazard of transfer vehicles from running off the dockboard edge. This document summarizes how an employer could apply American National Standards pertaining to loading dock equipment to demonstrate that hazards pertaining to run-off are adequately addressed.

The OSHA rule defines a dockboard in 29 CFR 1910.21(b) as "a portable or fixed device that spans a gap or compensates for a difference in elevation between a loading platform and a transport vehicle. Dockboards include, but are not limited to, bridge plates, dock plates, and dock levelers." This definition differs from definitions that have been utilized in American National Standards developed by the Loading Dock Equipment Manufacturers (LODEM). LODEM has developed two separate standards with different definitions for dock levelers and dockboards, as follows:

In ANSI MH 30.1-2015 "*Performance and Testing Requirements for Dock Leveling Devices*," a dock leveler is defined as

"A device affixed to a dock structure, usually incorporating a mechanism to aid in positioning the device with respect to the bed (or loading surface) of a transport vehicle, thus creating a bridge for industrial vehicles between the transport vehicle and the dock structure."

In ANSI MH 30.2-2015 "*Portable Dock Leveling Devices: Performance and Testing*," a dockboard is defined as "A plate-like structure with additional beam-like members located on two opposing sides of the plate and oriented parallel to the span of the plate. These members are welded or bolted to the plate and have the dual purpose of providing additional support to allow the dockboard to support heavy loads such as from fork lift trucks, as well as providing a run-off guard, or curb."

Additionally, a dockplate is defined as

"A plate-like structure that is designed to carry loads without the assistance of additional supporting members, and is typically used for lighter loads associated with foot traffic and hand trucks."

The OSHA dockboard definition includes dock levelers, while the LODEM standards define dockboards and dock levelers as separate devices. This creates a compliance issue pertaining to run-off guards. 29 CFR 1910.26(b)(1) states, "Dockboards put into initial service on or after January 17, 2017 are designed, constructed, and maintained to prevent transfer vehicles from running off the dockboard edge." This rule includes an exception to the rule in 29 CFR 1910.26(b)(2), which states, "When the employer demonstrates there is no hazard of transfer vehicles running off the dockboard edge, the employer may use dockboards that do not have run-off protection."

As noted in the ANSI MH30.2-2015 definitions, two primary differences between dockboards and dockplates are run-off guards and intended use.

The primary reason LODEM was specific in creating separate definitions and standards for dock levelers, dockboards, and dockplates pertains to run-off protection. Run-off protection is typically achieved by the use of run-off guards, which are defined in ANSI MH 30.2-2015, as "a vertical projection running parallel with normal traffic flow at each side of the portable dock leveling device." The OSHA rules would require that both dock levelers and dockboards require run-off protection, which typically is achieved by the use of run-off guards. However, run-off guards are typically included on dockboards and are typically not included on dock levelers or dockplates.

Run-off guards are typically not desired on dock levelers for two main reasons: they can become a tripping hazard and/or they cause fork truck interference.

## Tripping hazard

When the dock leveler is in its parked position, run-off guards would protrude up from the loading dock, creating an uneven walking-working surface that could result in a trip hazard.

If side run-off guards were to be installed, the side run-off guards would project upwards approximately 3 inches along the edges of the dock leveler platform. The run-off guards would create a trip hazard to all foot traffic around the loading dock shown in Image A.



## Fork truck interference

The presence of run-off guards could interfere with the fork truck wheels or tines during truck loading or unloading. This interference could result in stopping the fork lifts abruptly, quickly deflecting and changing the direction of the fork truck and load, or damage to the load or fork the fork truck (Image B). Additionally, in many applications, a dock leveler is placed in the parked position designed to accommodate cross traffic (driving over the sides and across the gap) by fork trucks.

Installing side run-off guards would impede this type of use and would create interference or impediment and destabilizing concerns for the fork trucks and their loads.

When the dock leveler is in the parked position fork trucks frequently drive on the dock leveler. The installation of the side run-off guards would block this type of traffic and could cause toppling of the fork truck and the load, as well as damage to the fork lift.





LOADING DOCK EQUIPMENT MANUFACTURERS

Dock levelers are installed in a recessed pit into the loading dock floor and generally centered on the overhead door. When they are in the parked position, the dock leveler platform is flush with the floor (Image C). When the dock leveler is used below floor level, the side walls of the pit and the overhead door jamb act as a run-off guard to the fork lift and load moving off the side of the dock leveler. When the dock leveler is used above the loading dock level, the door jamb typically acts as a run-off guard. (Image D).



To comply with the new walking-working surface regulations, an employer is required to either equip their dock equipment with run-off guards or demonstrate that no risk for transfer vehicles to run-off the dockboard edge exists. LODEM recommends that employers utilize dockboards or dock levelers that comply with ANSI MH30.1 and ANSI MH30.2, respectively. Furthermore, when dock levelers without run-off guards are used,

employers should ensure that loading dock personnel are trained in proper equipment and techniques to ensure that no risks for transfer vehicles running off the dockboard edge are created. When dockboards, as defined by LODEM, are used, they should comply with ANSI MH30.2 and should be utilized in ways that conform to the OSHA rule.



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