

Loading Dock Safety

This PSHSA Fast Fact is intended to help workers, supervisors and managers, and JHSC members recognize hazards associated with loading docks in their workplaces and take steps to make the loading dock a safer place to work.

What is a Loading Dock?

According to the National Institute of Building Sciences, Whole Building Design Guide: Loading Dock, a loading dock is a recessed bay in a building or facility where trucks are loaded and unloaded. They are commonly found in commercial and industrial buildings, offices, hospitals and warehouses in particular. Loading docks may be exterior, flush with the building envelope, or fully enclosed. They are part of a facility's service or utility infrastructure, typically providing direct access to distributions areas, storage rooms, and freight elevators.^[1]

Loading Dock Hazards

The high level of activity at a loading dock area along with the presence of physical hazards can lead to serious worker injury, and sometimes result in a fatality. It is important to be proactive in identifying potential hazards in the loading dock area, such as:

- congestion and traffic
- inadequate lighting
- uneven surfaces
- equipment in poor working order
- lack of safe working procedures
- hazards associated with lifting devices, trucks, rolling conveyors, doors and other moving equipment and parts

Along with regular inspections by loading dock staff, the loading dock area should be included in regular workplace inspections by the health and safety representative or the joint health and safety committee.

Controlling Loading Dock Hazards

Once hazards are identified, consider the following potential controls. Whenever possible, take steps to improve the design of the loading dock area to remove the identified hazard.

Loading Dock Design

- Design the loading dock area to allow safe entry and exit of vehicles.
- Clearly mark safe routes around loading dock areas for pedestrian traffic.
- If a dock leveller is in use, ensure it is appropriate for the volume and weight of materials being handled.
- Reduce uneven surfaces between the loading area, dock plate and the trailer, to reduce slips and falls (*see number 1 on the figure*).
- Provide adequate lighting in the loading dock area, as well as in the trailer, to prevent slips, trips and falls, and collisions (*see number 2 on the figure*).
- Locate dumpsters in a controlled area away from general vehicular traffic.

Positioning and Securing Vehicles

- Equipment, such as a chock, should be used to anchor the trailer and prevent the trailer from moving and injuring nearby workers (*see number 3 on the figure*).
- A moving trailer can result in shifting loads inside that can pin a worker and cause injury. There should be no one in the trailer as a fork lift enters or exits during loading or unloading (*see number 4 on the figure*).
- If the trailer is not stabilized it can tip. Use a jack stand with a short trailer to help prevent a teeter-totter effect. Adjust trailer wheels whenever possible for better balance (*see number 5 on the figure*).

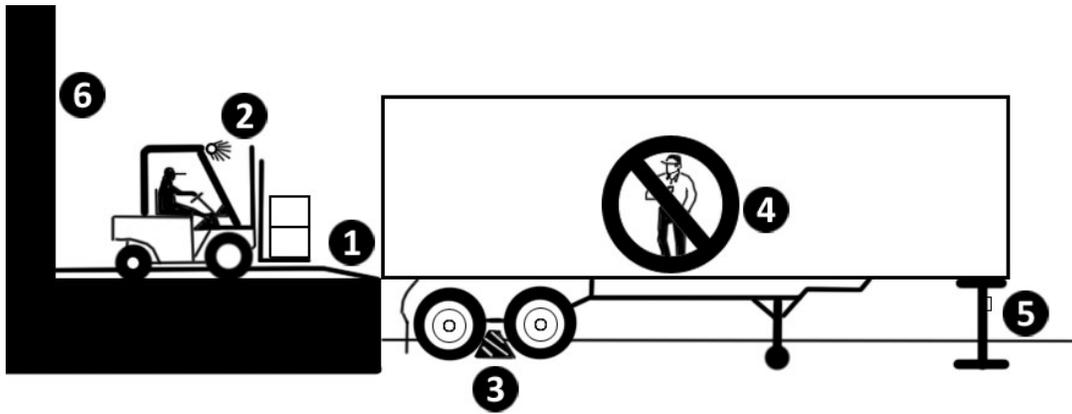


Diagram courtesy of the Infrastructure Health & Safety Association—www.ihsa.ca

Loading and Unloading of Materials and Goods

- Reduce congestion in the dock area (see number 6 in the figure).
- Pedestrians and unauthorized persons should not be permitted at the loading zone. Educate all workers on the need to use these marked areas when walking through the loading dock area and that vehicular traffic (including fork-lifts) should not enter these areas.
- If fork-lifts are in use, ensure workers have appropriate training. See Ministry of Labour Guideline for the Safe Operation and Maintenance of Powered Lift Trucks for details.
- Ensure dock plates have appropriate capacity, stability and proper placement (see number 1 on the figure).
- Provide physical barriers at dock edges and on lifting devices to prevent falls.
- Proper lifting techniques should be used when loading and unloading boxes and heavy loads to prevent musculoskeletal disorder injuries.
- Reduce vehicle exhaust by limiting idling times and turning off vehicle engines when loading or unloading the truck.

Adequate Preventive Maintenance

- Establish a regular preventive maintenance program for loading dock equipment including dock levellers, restraints, doors, dock bumpers, lights, and communication systems.

- Repair immediately any damage to flooring reported by workers or identified during workplace inspections.
- Ensure that good housekeeping practices are in place. Clean up spills and leaks immediately and remove and dispose of any packaging materials (cardboard, pallets, plastic, etc.).
- Regularly check dock seals and shelters to ensure they are not leaking, to minimize worker exposure to vehicle exhaust and temperature extremes, as well as minimize deterioration of the building envelope due to weather.

For More Information?

Health and Safety Ontario: Poster on loading dock safety: http://www.labour.gov.on.ca/english/hs/pdf/poster_loading.pdf

Ministry of Labour: Guideline for the Safe Operation and Maintenance of Powered Lift Trucks: <http://www.labour.gov.on.ca/english/hs/pubs/liftrucks/index.php>

IRSST Quebec: Safety on Loading Docks brochure: <http://www.irsst.qc.ca/files/documents/PubIRSST/RF-530.pdf>

[1] Greenbaum, S. (2009). Loading Dock. Retrieved January 27, 2010, from Whole Building Design Guide Web site: http://www.wbdg.org/design/loading_dock.php.