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Pallet racks are so commonplace in warehouses, distribution centres, retail operations and manufacturing plants that it is important that they be recognized as the potential hazards they are. In light of a recent fatality in Ontario involving the collapse of a pallet racking system, we'd like to give the issue some attention. Typically made of steel, pallet racks often support heavy loads. If the racks fail and the loads fall, there is potential to severely injure or kill a worker. That's why employers, supervisors and workers who are responsible for and work around racking should take every reasonable precaution to ensure the safe operation and maintenance of pallet racks.

WHAT CAN HAPPEN

Racking systems often fail or collapse, in part or in whole. The forklifts that load the racks often collide with them, causing material to be displaced or damaging the racking itself. Material sometimes falls through the back of the racks. In addition, facilities with floor vibration are at risk of loads crawling and eventually falling off the rack. These incidents happen when racks are improperly designed, installed or assembled, when they're being loaded or unloaded with the wrong kind of material handling equipment, or when they're damaged.

Other causes of failure of pallet rack systems:

- Overloaded or misused racks
- Unstable floors or walls
- Cracks in concrete floors around the anchors (from repeated hitting of the pallet rack)
- Products pushed through the back of the rack or no back rest where needed
- Operator error, often because the person driving the material handling equipment (forklift, reach truck etc.) isn't properly trained
- After a forklift collision with a rack, employees fail to report the incident to management, or fail to assess damage and do the necessary maintenance or repairs
- Using racks to store goods/products they were not originally designed for
- Bracing is removed or not installed
- Anchor bolts are not installed
- Lack of regular inspection and maintenance program

PALLET RACKING SAFETY



Employers have a duty to ensure a safe work environment. In Ontario, a Pre-Start Health and Safety Review (PSR) is required in a factory where a new structure is being installed or modified (unless the employer has documentation to indicate that the rack has been designed and tested in accordance with the current applicable standards). Check the health and safety guidelines for your jurisdiction for regulations specific to pallet racks.

HOW TO PREVENT MISHAPS

According to reports from actual injuries and fatalities related to pallet racking, the following safe work practices are necessary and can save lives:

Installation - Only workers who have received adequate training and are familiar with rack assembly procedures should be installing racking systems. It is critical to ensure that the installation of new racking or modified racking (which alters the load capacity) is in compliance with health and safety guidelines in your jurisdiction and carried out in accordance with the engineering reports and manufacturers' instructions.

Safety training - Anyone working in the area of pallet racking, or operating the equipment used to load the racks, must receive appropriate training on the potential hazards and safe work practices.

Maintenance - Racks are not designed to withstand harsh blows. Any structure that receives a major dent should be replaced or repaired. Many pallet racking systems are damaged during regular use, most often by forklift trucks.

Inspection - Supervisors and workers should conduct a daily inspection of the racking system. Things to look for are minor dents (a good indicator of structural abuse), improper overhang of goods over pallets, pallets over beams, damaged pallets, storage of improperly sized pallets, and unsafe operation of material handling equipment.

Once a month, management should conduct an inspection and document the findings in writing and through drawings to identify any variance (e.g. structural damage, missing or out-of-position components, etc.) from previous months. It is important to report findings of daily and monthly inspections and ensure there is a system in place to address any deficiencies/damage noted.

It is the employer's responsibility to ensure the racking systems in use are installed correctly, used as intended and maintained in good condition.

Information found on CCOHS website. Link to article below.

<http://www.ccohs.ca/newsletters/hsreport/issues/2008/01/ezine.html>