Safety Facts:

Industrial Storage Racking*

Storage racks are common in industry. Racks used to store materials have inherent risks. Poor maintenance can result in serious injuries and death.

Ensure your storage racks are correctly designed, installed, used, and maintained. Understand the hazards of racking to prevent incidents, injuries, lost time, and costs.

Why is it important?

Poorly maintained racks can lead to serious injuries and death. Moving materials from racks puts workers at risk of slips, falls, and fatigue. They can be struck by objects. Other factors that can increase risk of injury:

- Overloading
- Poor maintenance
- Unsafe loading practices
- Unstable or collapsed racks

Review existing racks and select a system that meets your needs. Consider the following before buying storage racks:

- Products to be stored
- Materials handling equipment
- Facility

Training

To work around a racking system, know:

- Rated load of the racking
- Characteristics of the stored loads
- Operating conditions of material handling equipment

Inspectors should identify hazards and complete the tasks for inspection and maintenance.

Qualified installers must understand the instructions of the manufacturer or a professional engineer to safely install/uninstall storage racks.

Type of inspections

Visual inspection:
This daily inspection notes the condition of the racks and surroundings. Trained staff should check for:

- deformed components
- broken pallet racks
- misplaced loads
- missing lock pins
- missing anchor bolts
- obstructed warehouse aisles and main aisles
- lost or damage connections, bolts, and other structural pieces

Detailed inspection:
Detailed inspections are done with measuring instruments. They assess the condition of the columns and the deformation of the beams and frames. Measurements must be taken with instruments such as a level and straight edge.

You may need to unload sections to measure deformation of some components. Consult your racking manufacturer to set an inspection schedule. Consider your storage, products, and logistical needs.

Preventative next steps

Most rack damage occurs between the floor and the first horizontal beam. Consult the manufacturer on how to repair the damage. Rack damage is **severe structural** or **moderate** damage:

- **Severe structural damage** parts are buckled or severely bent and must be replaced
- **Moderate damage** columns are dented, slightly skewed, etc. They may be repaired by adding braces or splices strong enough to carry the intended load

To reduce impact on operations, prevent issues upfront and avoid the cost of a damaged industrial rack. Have an inspection program and records of the inspection for your racking system.

For additional resources visit:

Manufacturing Safety Alliance of BC: *safetyalliancebc.ca*

Industrial Storage Racking

Toolbox Talk

Name of Facilitator: _____ **Date:** _____

Supervisor Signature: _____ **Date:** _____

Safety Specific Training Requirements: Identified Hazards/concerns

Employee feedback/questions/recommendations

Workers who attended

Name	Initial	Name	Initial

Key Talking Points