

25 HOUSEKEEPING AND FIRE SAFETY

Many injuries result from poor housekeeping, improper storage of materials, and cluttered work areas. To maintain a clean, hazard-free workplace, all groups – management, supervision, and workers – must cooperate.

General

Regulations for safe housekeeping require

- daily jobsite cleanup program
- disposal of rubbish
- individual cleanup duties for all workers
- materials piled, stacked, or otherwise stored to prevent tipping and collapsing
- materials stored away from overhead powerlines
- work and travel areas kept tidy, well-lit, and ventilated (Figure 8)
- signs posted to warn workers of hazardous areas.

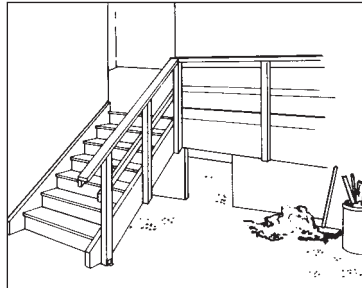


Figure 8
Keep stairs and landings clear and well-lit.

The basics of good housekeeping are shown in Figure 9.

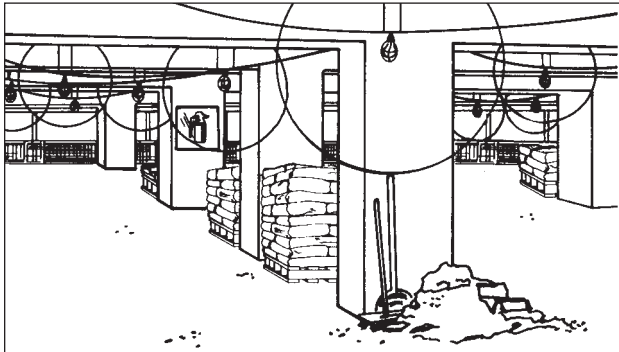


Figure 9

Good housekeeping means clear traffic and work areas, out-of-the-way storage, adequate illumination, and cleanup of debris.

Specific

- Gather up and remove debris as often as required to keep work and travel areas orderly.
- Keep equipment and the areas around equipment clear of scrap and waste.
- Keep stairways, passageways, and gangways free of material, supplies, and obstructions at all times.
- Secure loose or light materials stored on roof or on open floors to prevent them being blown by the wind.
- Pick up, store, or dispose of tools, material, or debris which may cause tripping or other hazards.
- Before handling used lumber, remove or bend over protruding nails and chip away hardened concrete.
- Wear eye protection when there is any risk of eye injury.
- Do not permit rubbish to fall freely from any level of the project. Lower it by means of a chute or other approved devices (Figure 10).
- Do not throw materials or tools from one level to another.
- Do not lower or raise any tool or equipment by its own cord or supply hose.

- When guardrails must be removed to land, unload, or handle material, wear fall-arrest equipment (Figure 11). The area must also be roped off with warning signs posted.

In shops it is relatively easy to maintain a clean work area. Barriers and warning lines can also be set up to isolate table saws and other equipment.

On construction sites, arrangements are more difficult. Equipment often sits in basements, on decks, or in corners with insufficient working space and sometimes it's open to the weather. The footing may simply consist of a piece of plywood.

Around table saws and similar equipment, keep the immediate area clear of scrap to avoid tripping hazards and provide sound footing.

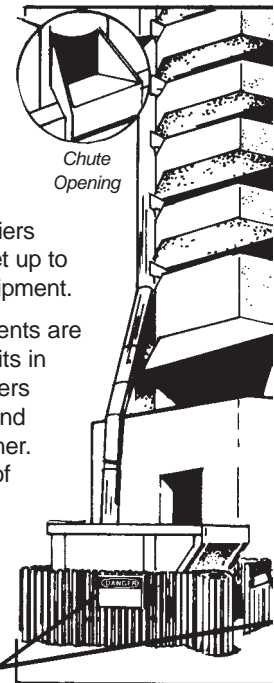


Figure 10

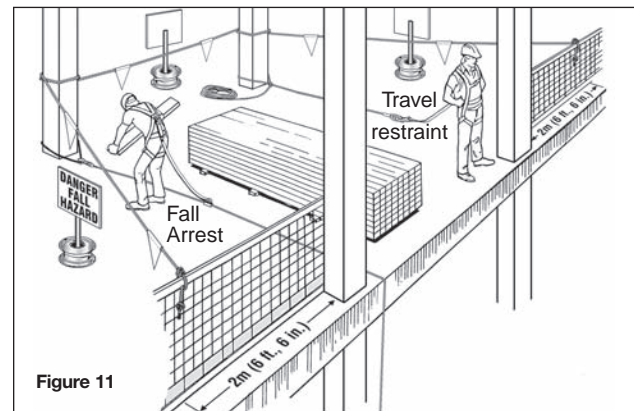


Figure 11

Airborne wood dust can be a respiratory hazard, causing problems ranging from simple irritation of the eyes, nose, and throat to more serious health effects. Dust collectors should be installed in shops to remove sawdust from air and equipment. Wood dust is also very flammable.

In construction, saws and other tools are often operated in the open air where dust presents no hazard. However, dust masks or respirators should be worn whenever ventilation is inadequate.

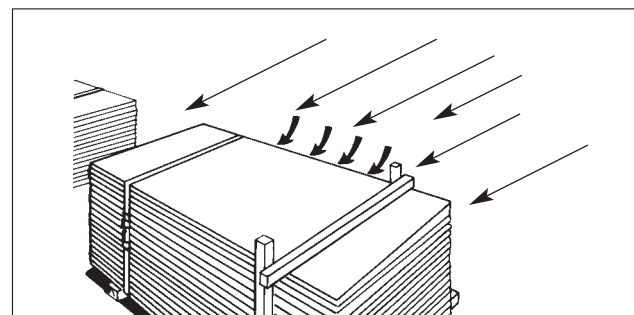


Figure 12
Secure material against the wind.
After removing material, resecure pile.

Storage

Storage areas should be at least 1.8 metres (6 feet) from roof or floor openings, excavations, or any open edges where material may fall off (Figure 12).

Near openings, arrange material so that it cannot roll or slide in the direction of the opening.

Flammable Materials

- Use copper grounding straps to keep static electricity from building up in containers, racks, flooring, and other surfaces (Figure 13).
- Store fuel only in containers approved by the Canadian Standards Association (CSA) or Underwriters' Laboratories of Canada (ULC).
- Ensure that electric fixtures and switches are explosion-proof where flammable materials are stored.
- See Figure 14 for pointers on safe storage.

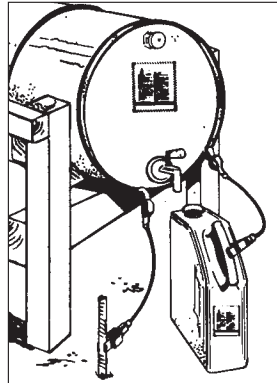


Figure 13
Dispensing and receiving containers should both be grounded.

Hazardous Chemicals

- Refer to material safety data sheets (MSDSs) for specific information on each product.
- Follow manufacturer's recommendations for storage.
- Observe all restrictions concerning heat, moisture, vibration, impact, sparks, and safe working distance.
- Post warning signs where required.
- Have equipment ready to clean up spills quickly.

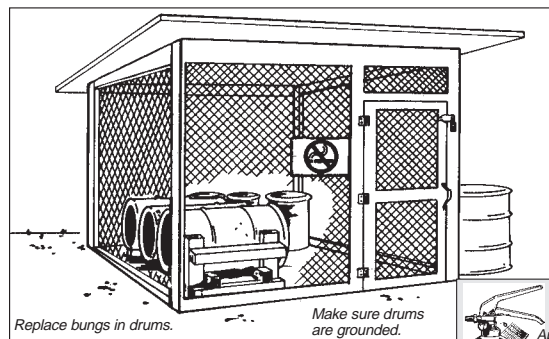


Figure 14
Storage of Flammable Liquids

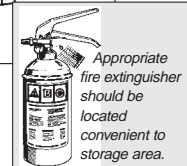
- To keep them separate for special handling and disposal later, store empty chemical containers in secure area away from full containers.

Bags and Sacks

- Do not pile bagged material more than 10 bags high unless the face of the pile is supported by the walls of a storage bin or enclosure.
- Do not move piles more than 10 bags high unless fully banded or wrapped.
- Cross-pile bags and sacks for added stability. Pile only to a safe and convenient height for loading and unloading.

Compressed Gas Cylinders

- Store and move cylinders in the upright position. Secure cylinders upright with chains or rope.
- Lock up cylinders to prevent vandalism and theft.
- Wherever possible, store cylinders in a secure area outdoors.



Class "A" Extinguishers

For fires in ordinary combustible materials such as wood, paper, and textiles where a quenching, cooling effect is required.



Class "B" Extinguishers

For flammable liquid and gas fires, such as oil, gasoline, paint and grease where oxygen exclusion or flame interruption is essential.



Class "C" Extinguishers

For fires involving electrical wiring and equipment where the non-conductivity of the extinguishing agent is crucial.

This type of extinguisher should be present wherever functional testing and system energizing take place.



Class "D" Extinguishers

For fires in combustible metals such as sodium, magnesium, and potassium.

How to Use the Extinguisher

Aim the extinguisher at the base of the fire to extinguish the flames at their source.

Figure 15

- Keep full cylinders apart from empty cylinders.
- Store cylinders of different gases separately.
- Keep cylinders away from heat sources.
- When heating with propane, keep 45-kilogram (100 lb.) cylinders at least 3 metres (10 feet) away from heaters; keep larger tanks at least 7.6 metres (25 feet) away.

Lumber

- Stack on level sills.
- Stack reusable lumber according to size and length. Remove nails during stacking.
- Support lumber at every 1.2-metre (4-foot) span.
- Cross-pile or cross-strip when the pile will be more than 1.2 metres (4 feet) high.

Fire Protection

Housekeeping includes fire prevention and fire protection. Workers must be trained to use fire extinguishers properly.

Fire extinguishers must be

- accessible
- regularly inspected
- promptly refilled after use.

Extinguishers must be provided

- where flammable materials are stored, handled, or used
- where temporary oil- or gas-fired equipment is being used
- where welding or open-flame cutting is being done
- on each storey of an enclosed building being constructed or renovated
- in workshops, for at least every 300 square metres of floor area.

Fire extinguishers are classified according to their capacity to fight specific types of fires (Figure 15).

Workers must be trained to use fire extinguishers properly.

For most operations, a 4A40BC extinguisher is adequate.

Extinguishers have a very short duration of discharge – usually less than 60 seconds. Be sure to aim at the base of the fire.