

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.

Regulations

Legal requirements related to housekeeping practices include the following.

- Daily jobsite cleanup program (or as often as is necessary)
- 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 25-1)
- Signs posted to warn workers of hazardous areas.

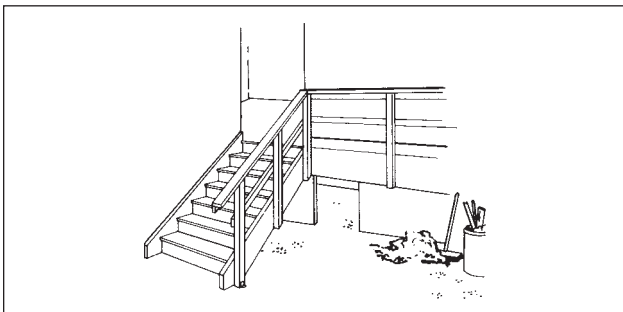


Figure 25-1: Keep Stairs and Landings Clear and Well-Lit

Housekeeping Basics

The basics of good housekeeping are shown in Figure 25-2. Good housekeeping means clear traffic and work areas, out-of-the-way storage, adequate illumination, and cleanup of debris.

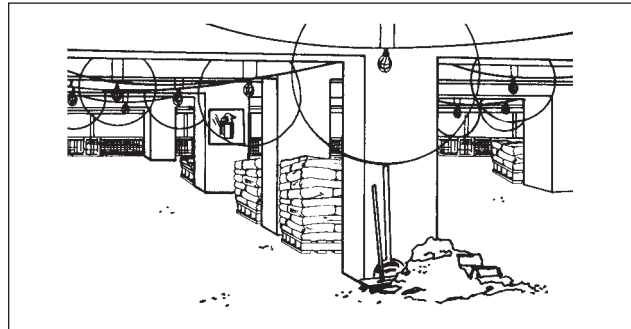


Figure 25-2: Good Housekeeping Basics

Follow the safe work practices listed below.

- 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 that 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 device (Figure 25-3).
- 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 25-4). The area must also be roped off with warning signs posted.

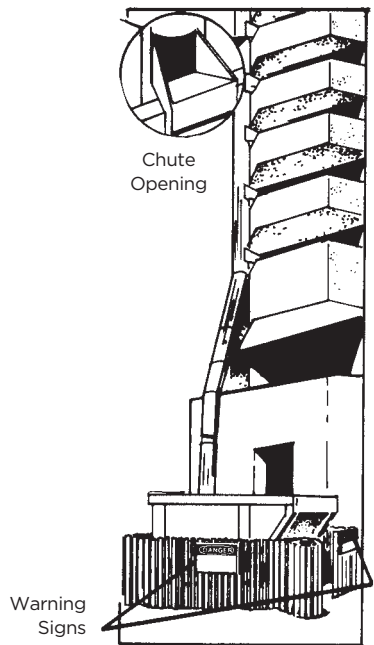


Figure 25-3: Use a Chute to Lower Rubbish

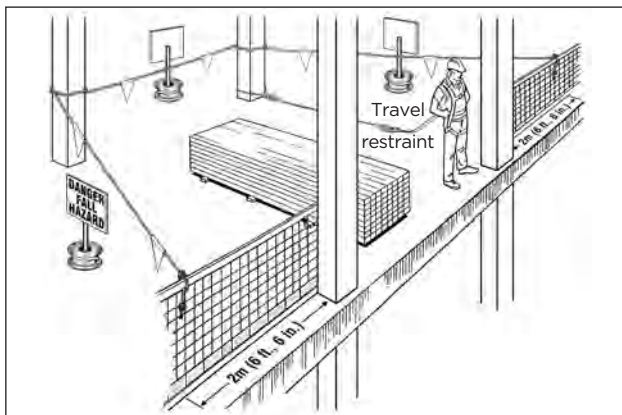


Figure 25-4: Wear Personal Fall Protection When Removing Guardrails

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. Sometimes it's in areas that are open to the effects of weather and 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.

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.

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. Near openings, arrange material so that it cannot roll or slide in the direction of the opening. Secure material against the wind (Figure 25-5). After removing material, resecure pile.

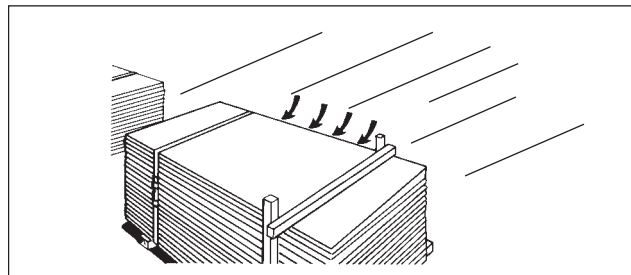


Figure 25-5: Secure Material Against the Wind

Flammable Materials

- Use copper grounding straps to keep static electricity from building up in containers, racks, flooring, and other surfaces (Figure 25-6).
- 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 25-7 for pointers on safe storage of flammable liquids.

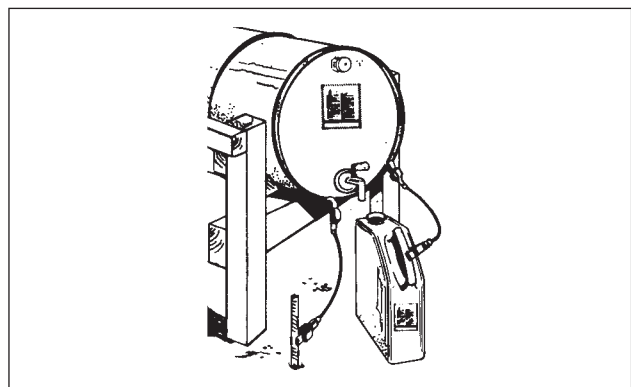


Figure 25-6: Ground Dispensing and Receiving Containers to Prevent Static Electricity Buildup

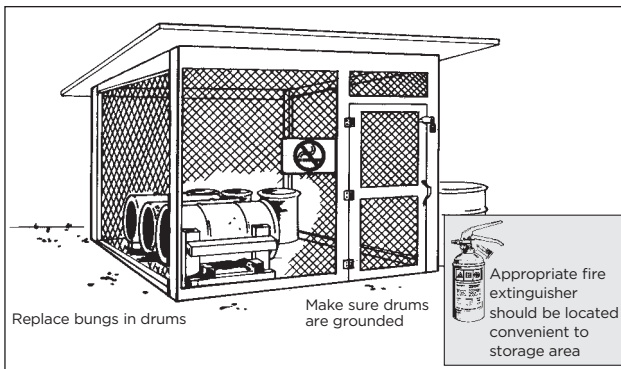


Figure 25-7: Storage of Flammable Liquids

Hazardous Chemicals

- Refer to the safety data sheet (SDS) for specific information on each product.
- Follow the 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.
- Store empty chemical containers in secure area away from full containers. This will keep them separate for special handling and disposal later.

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

- When storing and moving cylinders, keep them 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.
- 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-kg (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

Good housekeeping is essential for the prevention of fires. However, if a fire does break out in the workplace, it is important to know what kind of fire extinguisher to use and how to use it.

Section 52 of the Regulation for Construction Projects (213/91) requires that every worker who may need to use fire extinguishing equipment be trained in its use. This section of the regulation also outlines specific locations and circumstances where fire 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.

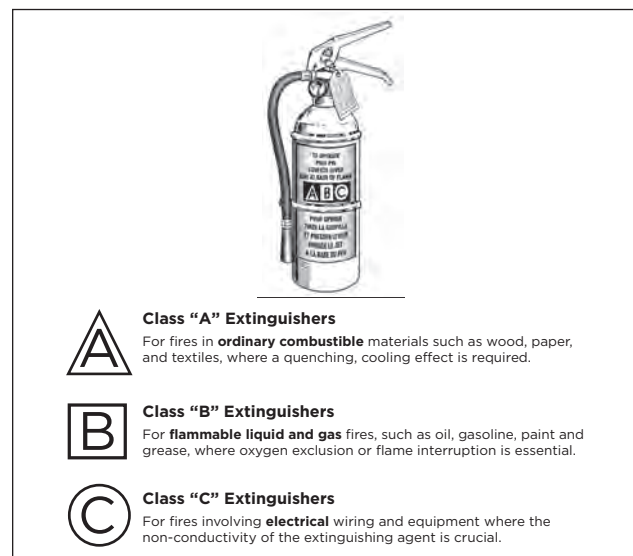
Fire extinguishers must always be

- Visible
- Marked
- Easily accessible
- Well-maintained
- Refilled or replaced immediately after use.

They must be inspected for defects or deterioration once a month by a competent worker who records the date on the tag.

Fire extinguishers are classified according to their capacity to fight specific types of fires. Every fire extinguisher on a construction project must have an Underwriters’ Laboratories of Canada 4A40BC rating. This type of extinguisher can be used on Class A, B, and C fires, which are the types of fires commonly encountered in construction (Figure 25-8).

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



- 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.

Figure 25-8: Classes of Fire Extinguishers