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Canadian Centre for Occupational Health and Safety + Centre canadien d'hygiène et de sécurité au travail

Workplace Housekeeping

Workplace Housekeeping - Checklist for Stockpiling

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How should materials be stockpiled?

How material should be stockpiled depends on the nature of the material itself. The overall goal is to create a stockpile that is stable. This stability will depend on many conditions, including:

- Size and shape of the material being piled (e.g., solid object or "loose" material such as sand, stone, grain, etc.)
- Water content
- Condition of the stockpile pad or shelving (e.g., flatness, stability, etc.)
- Exposure to temperature, rain, ice, snow
- If the material will compact or crush under its own weight
- Not exceeding the stacking weight capacity of the supporting surface
- Follow the manufacturer's guidelines on the storage and handling of a product as well as the use of any storage devices (shelves, wedges, skids, etc.)
- Train workers on the safe handling of materials they will encounter.

What are examples of a workplace housekeeping checklist when stockpiling objects?

The following are examples:

Lumber

- Lay lumber before stacking on a solid level sill.
- Consider using cross-piling or cross-stripping whenever the pile exceeds a specific height, such as 1.2 meters (4 ft.) in height.
- Exercise care when cutting bands are used to bundle lumber. Avoid being trapped by falling materials.
- Store in a well-drained area. Avoid exposure to excessive moisture.
- Protect from rain, snow, ice, or extreme temperature, as needed.
- Keep lumber away from potential fire hazards and incompatible materials.
- Store treated and untreated lumber separately to avoid contamination.

Reinforcing steel

- Use wooden spacers to separate piles of reinforcing steel.
- Unload reinforcing steel by mechanical means whenever possible.
- Check all bundles for broken or weak tie wires before attempting to unload.
- Store on flat and stable ground that is leveled to prevent shifting or sliding.
- Protect from moisture to prevent rust and corrosion.
- Limit height, keep stacking height at a safe and manageable level, and reference jurisdictions' guidelines and manufacturers' instructions.

Pipe

- Stack pipe on solid, level sills only. Block pipes to prevent them from rolling.
- Place lagging between layers to reduce the pressure and prevent the pile from spreading.
- Remove pipe from the ends of the pile.
- Consider not stacking pipe higher than a specific height, such as 1.5 meters (5 ft.).
- Protect from rain, snow, ice, or extreme temperature, as needed.

Structural steel

• Pile structural steel on a flat and stable surface to prevent tipping and slipping.

- Give special attention when loading structural steel from trucks.
- Place slings on steel before releasing binder chains.
- Protect from weather by covering the steel to protect from moisture and direct sunlight.
- Allow for ventilation to prevent moisture buildup and condensation.
- Limit the stack's height. Keep the height at a safe and manageable level, and reference jurisdictions' guidelines and manufacturers' instructions.

Bagged and stacked material

- Maintain stability.
- Do not allow piles to exceed ten bags in height unless the face of the piles are supported by the walls of a storage bin or enclosure.
- Cross-pile bagged materials on skids and pile only to a convenient height. The height depends on the nature and ability of the mechanical aids used and the weight of the bagged materials.

Bricks, Blocks, Tiles

- Pile bricks, blocks or tiles on a solid, level surface only.
- Use extreme caution when removing metal bands.
- Do not stockpile material on a scaffold beyond the safe loading capacity.
- Protect from rain, snow, ice, or extreme temperature, as needed.

What are examples of a workplace housekeeping checklist for stockpiling loose material?

Examples of loose material include sand, gravel, salt, slag, etc.

In general:

- Prepare a pad or level ground that can support the type and amount of material to be stored, and that can provide water drainage.
- Make sure that safe loading areas are incorporated into the work plan.
- Follow safe operating procedures when working with or near the stockpile (e.g., when removing or adding material), such as to never undercut a working face or leave a hollow space.

- Use barriers, berms, or other barricades as required.
- Never enter or leave the cab of your vehicle if loading is in progress.
- Be aware that material could shift or fall at any time.

There may be certain regulated requirements, or other aspects (such as the height and angle of repose) may need to be determined by a professional engineer or inspected by a competent person – check with your jurisdiction for exact requirements.

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