

# Materials Lifting, Carrying, Racking & Stacking Policy



This is a basic policy that can be adapted for any workplace or jurisdiction.

## 1. PURPOSE

ABC Company has adopted this Policy ensure the safe stacking, racking, shelving, placement, lifting, carrying, moving, and storage of materials and equipment at ABC Company workplaces in accordance with [province name] *Occupational Health and Safety Regulations* (“OHS Regulations”), the *Occupational Health and Safety Act* (“Act”), the ABC Company Occupational Health and Safety Program (“OHS Program”), and other applicable requirements and standards.

## 2. DEFINITIONS

For purposes of this Policy:

- **“Competent”** means possessing knowledge, experience, and training to perform a specific duty safely and effectively;
- **“Director”** means the [province name] Director of Occupational Health and Safety;
- **“Hazardous substances”** include explosives, compressed gases, flammable liquids, flammable solids, corrosive substances, poisonous and infectious substances, oxidizers and organic peroxides, radioactives, and hot liquids;

- **“MSDS/SDS”** means a Material Safety Data Sheet or Safety Data Sheet required by WHMIS;
- **“Manufacturer’s specifications”** means the written instructions or recommendations of a manufacturer of a machine, materials, tools, equipment or mobile equipment that outline the manner in which the machine, materials, tools or equipment is to be erected, installed, assembled, started, operated, used, handled, stored, stopped, adjusted, maintained, repaired or dismantled, and includes an installation, operating or maintenance manual and drawings;
- **“Qualified”** means educated, experienced, and trained to recognize, evaluate, and control the hazards associated with the work;
- **“WHMIS”** means the Workplace Hazardous Materials Information System.

### **3. POLICY STATEMENT**

Operations at ABC Company work sites that require workers to handle materials and equipment by hand expose workers to health and safety hazards. Management recognizes these hazards and has adopted this Policy to ensure that they are properly identified, assessed, and controlled.

The Rule: Materials and equipment must be stacked, racked, shelved, placed, carried, lifted, moved, and stored using methods that are safe and meet the requirements of this Policy.

### **4. WORKERS THIS POLICY IS INTENDED TO PROTECT**

The intent of this Policy is to ensure that **all workers** engaged to work at ABC Company work sites who engage in or affected by materials handling operations are properly protected regardless of who pays or employs those workers, including:

- Full- or part-time workers employed by ABC Company;
- Temporary employees placed by an outside agency to work at the site;
- Contract labourers engaged to perform work at the site;
- Volunteers who work at the site for free; and
- Workers employed by constructors, contractors, and subcontractors to perform work at the site under a contract with ABC Company.

## **5. SAFE LIFTING & CARRYING**

ABC Company will ensure that:

- Mechanical devices are used to lift, carry, and move materials, objects, and equipment that are too heavy, big, bulky, or awkward to move manually;
- Workers are trained in the safe use of mechanical lifting, carrying, and moving devices that they are required to use;
- Workers required to manually lift, carry, or move materials heavy receive training in safe lifting techniques to guard against musculoskeletal and other injuries;
- Where 2 or more workers are involved in lifting or carrying heavy objects, the raising and lifting process is coordinated by the use of clear and well-understood signals;
- Where heavy objects such as loaded drums or tanks are handled on inclines in either direction:
  - Ropes or other tackle is used to control the motion of the objects;
  - Workers do not stand or position themselves between the skids on the downhill side;
- Where rollers or bars are used to move heavy objects, sledges or other mechanical methods are used to change the rollers' direction;
- Blocking, support chains, wire ropes, metal bands, and

- rigging components are removed from equipment and materials in a manner that does not endanger a worker;
- Material or equipment to be moved by crane or similar hoisting equipment is not stored under or near an overhead energized electrical conductor.

## **6. HANDLING OF UNCONSOLIDATED MATERIALS**

ABC Company will ensure that:

- Unconsolidated bulk material is:
  - Regularly inspected for hazardous conditions; and
  - Verified as safe by a competent person before workers are allowed to work on or close to the pile;
- Where powered mobile equipment is used to remove unconsolidated bulk material:
  - The working face of the unconsolidated bulk material is at the angle of repose when workers are near the face; or
  - The vertical height of the face is no higher than 1.5 m (5 ft.) above the maximum reach of the powered mobile equipment when workers remain in the equipment at the face;
- Where use of powered mobile equipment undermines the face of an unconsolidated bulk material stockpile, the operator of the powered equipment ensures that such undermining is:
  - Is no deeper than the depth of the bucket of the powered equipment;
  - Allowed only when the approach of the powered mobile equipment is at 90° angle to the stockpile face; and
  - Limited to times and places when no one has access to the face;

- A worker only enters or remains at a location where there is a danger of being engulfed or entrapped in loose materials (or similar hazards exist) if:
  - Catwalks, walkways, barriers, or other methods are used to provide safe access and a safe work area;
  - Measures are taken to control the engulfment or entrapment risks; and
  - Where the above measures do not totally eliminate the risks of engulfment or entrapment, the worker:
- Uses a lifeline and full body harness that is adequate to prevent them from being entrapped or engulfed and allows for immediate rescue;
- Is continuously tended by a standby person who is equipped, ready, and capable of effecting immediate rescue;
- Bins, hoppers, or process vessels used to store bulk materials are:
  - Designed and built to removal of the material from the bottom;
  - Provided with a proper lid and ventilation system;
  - Fire-resistant if the bulk material is highly combustible; and
  - Equipped, where appropriate, with stairways or fixed ladders with platforms and guardrails on the outside;
- A safe work procedure is developed and implemented for breaking clogs in bulk material;
- The above safe work procedure is kept available near the bin, hopper, or process vessel;
- Entry into a bin, hopper, or process vessel used to store bulk material is considered a confined space entry to which the requirements of ABC Company Confined Spaces Policy apply.

## **7. STACKING & PILING**

### **7.1. General Stacking Rules**

ABC Company will ensure that:

- Materials and equipment are placed, stacked, and stored safely;
- Stacked containers and materials are stabilized by interlocking strapping or other effective means of restraint;
- Pallets are stacked and maintained in a way that ensures that the pallets or loads are safe to lift by forklift, truck, or other device; and
- Storage racks and foundations are designed, constructed, and maintained to support the load placed on them.

### **7.2. General Safety Measures for Piling Solid Materials**

ABC Company will ensure that:

- The method used to pile solid materials does not interfere with:
  - Illumination;
  - Ventilation;
  - Means of exit and entry;
  - Passageways or traffic lanes;
  - The operation of machines;
  - Sprinklers and firefighting equipment; or
  - Electrical panels or energized electrical lines;
- Piles of solid materials are located on a firm foundation that is strong enough to support the load;
- Piles do not rest against a partition or the wall of a building unless the wall is sound or made strong enough to support the load;
- Piles are protected against conditions that may damage the structural integrity of any container used to store the material;

- The height of piles is safe and does not render the stockpile unstable.

### **7.3. Piling of Bagged Materials**

ABC Company will ensure that when heavy bagged materials are piled, the bags are:

- Placed so the mouths of the bags face inward;
- Cross-tied; and
- Piled so a step-back of one bag is made:
  - At the first 1.5 m (5 ft.) high level and;
  - At each additional 1 m (3 ft.) height.

### **7.4. Piling of Boxes**

ABC Company will ensure that:

- Loaded boxes, crates, or cartons are piled on the side that has the largest area, unless contrary instructions are given;
- Piles of boxes, crates, or cartons are suitably cross-tied;
- Loaded cartons are not piled to a height that will collapse the lowest carton; and
- The carton on the pile is protected against moisture from the ground or floor.

### **7.5. Piling of Lumber**

ABC Company will ensure that lumber is:

- Piled neatly;
- Supported above ground;
- Stacked with horizontal or slightly inclined layers separated by pieces of material between lifts; and
- Stabilized via transversal supports, where a pile is more than 1.2 m (4 ft.) high.

### **7.6. Piling of Barrels**

ABC Company will ensure that:

- If cylindrical objects like empty barrels, drums, large pipes, or rolls of paper are piled on their sides;
  - The pile is symmetrical and stable; and
  - Every unit in the bottom is carefully wedged;
- If cylindrical objects like empty barrels, drums, large pipes, or rolls of paper are piled on their ends:
  - The piles are low; and
  - 2 planks are laid side by side on top of each row before another row is started.

### **7.7. Stacking of Pipes**

ABC Company will ensure that pipe or bar stock is stacked:

- On storage racks; or
- Where storage racks are not practicable:
  - In layers resting on wood strips with stop bars fixed on the ends; or
  - On metal bars with upturned ends, so that storage or withdrawal of the stock does not create a hazard.

### **7.8. Stacking of Masonry Units**

ABC Company will ensure that masonry units are stacked:

- On planks, a platform, or other level base;
- In interlocking layers covering the entire area of the stacks;
- In such a way that the height of the vertical face of a stack does not exceed 1.8 m (6 ft.); and
- Where the height of the stockpiling is over 1.8 m (6 ft.):
  - With wooden transversal supports between the layers to prevent the pile from collapsing; and
  - Bound together to ensure the stability of the pile.



## **8. HANDLING OF HAZARDOUS MATERIALS**

### **8.1. General Precautions**

ABC Company will ensure that:

- Areas where hazardous materials may be dropped, spilled, or dumped are:
  - Covered or guarded to prevent a worker from inadvertently entering;
  - Posted with appropriate and legible and effective warning signs;
- One or more qualified person is designated as being responsible for the proper handling and storage of hazardous substances and complying with the requirements of the OHS Regulations (as set out in this Section 8 of the Policy);
- Workers involved with the handling, storage, use, and disposal of hazardous substances are:
  - Receive adequate WHMIS training in accordance with the ABC Company WHMIS Policy; and
- Furnished with adequate and current information about the identity, nature, and potential hazards of the hazardous substances to which they are exposed.

### **8.2. Storage of Hazardous Substances**

ABC Company will ensure that hazardous substances are stored:

- Safely and in a way that prevents spillage and enables workers to use their WHMIS training and access to MSDSs/SDSs for the substances to protect themselves;
- Separately and away from other substances with which they may react with to cause a fire or explosion, release a poisonous gas, or create another hazardous situation, including ensuring that:
  - Flammable substances are not stored with oxidizing substances or gases that maintain combustion such

- as chlorine, nitrogen, or oxygen;
- Corrosive substances are not stored with oxidizing substances;
- Poisonous substances are not stored near oxidizing substances and oxydants;
- In accordance with the storage requirements set out in the OHS Regulations for the particular kind of hazardous substance.

### **8.3. Hazardous Substance Containers**

ABC Company will ensure that:

- A container used for hazardous substances is:
  - Clearly labelled to identify the substance and provide information about its safe handling;
  - Of such material, design, construction, and condition to ensure that it can safely contain the substance;
  - Kept sealed or covered (unless the supplier specifies otherwise); and
  - Stored in accordance with the supplier's specifications and the requirements of the Occupational Health Regulations;
- Precautions to be taken in handling, using, storing, and disposing the substance are available on the container or an MSDS/SDS kept near the container;
- Containers are electrically bonded or in contact with each other to prevent accumulation of static charges when a flammable or explosive material is being transferred from one container to the other;
- Tanks, mixers, vessels, or other such containers used for storing flammable or explosive gases are electrically bonded and grounded while they are filled or emptied;
- A container used to store a liquid hazardous substance:
  - Is supported so that any leak in the container is visible;

- Is placed on a foundation that resists reaction with the contents of the container or other containers;
- Has an overflow pipe that discharges into a safe area;
- Is surrounded with a catch basin that will hold the entire contents of the container if the container is ruptured;
- Is covered with a protective coating if the container is made of a corrodible material;
- Has safe access and egress for workers who inspect or maintain the container;
- Is not placed above a passageway;
- Is adequately cleaned after being emptied—unless the container has been rendered unusable;
- If located in a pit below ground level, is:
  - Provided with a cover and means of safe access and egress for workers who inspect or maintain the container;
  - Mounted at least 0.4 m (15 in.) above the floor of the pit; and
  - In a pit that meets the following standards:
    - The pit is constructed of impervious materials;
    - The pit has ample space between walls and the containers so that a person can pass through; and
    - There is a control valve that is situated or designed so that it can be turned without a worker's having to enter the pit;
    - There is a locking device that can be operated from outside the pit.

#### **8.4. Hazardous Substance Piping & Equipment**

ABC Company will ensure that piping and equipment used for

hazardous substances is:

- Appropriate for the substance contained;
- Regularly inspected and maintained in safe operating condition; and
- Properly identified regarding:
  - The nature of the hazardous substance contained;
  - Direction of the flow; and
  - Other information necessary for the safe operation of the system.

### **8.5. Compressed Gas Cylinders**

ABC Company will ensure that compressed gas cylinders are stored:

- Upright, with the valves on top, and firmly held in place;
- In an area where the cylinders are not exposed to corrosive material or corrosion aiding substances;
- In an area that is protected from falling over or heavy objects falling on them;
- In groups with other cylinders containing the same substance with the groups arranged and, if necessary, separated from other groups of compressed gases that may react adversely with them;
- With full and empty containers in separate areas, both standing upright and secure; and
- In a location and under conditions required by the Occupational Health Regulations for the safe storage of the particular hazardous substance that the cylinder contains.

### **8.6. Emergency Response Procedure**

ABC Company will develop and implement a procedure for cleaning up leaks, spills, or releases of hazardous substances, and respond to fires, explosions, and other emergency incidents caused by hazardous substances in

accordance with the ABC Company Emergency Preparedness & Response Policy.

## **9. CONSTRUCTORS, CONTRACTORS & SUBCONTRACTORS**

When constructors, contractors, or subcontractors are hired to work at an ABC Company work site, before the work begins ABC Company will:

- Notify the constructors, contractors, and subcontractors of the materials handling hazards posed to their workers;
- Notify those constructors, contractors, and subcontractors about this Policy and the other safety measures in place at the work site to ensure safe handling of materials;
- Require those constructors, contractors, and subcontractors to comply with this Policy and cooperate with all materials handling safety measures.

Constructors and contractors in control of work at an ABC Company site in which materials handling operations are to be performed will be required to ensure that workers involved in such work are protected from hazards by either:

- Directly applying this Policy and assuming all of the employer obligations this Policy assigns to ABC Company;  
or
- Establishing and implementing an equivalent policy that meets all regulatory requirements, and which is coordinated with and provides at least the same level of protection as this Policy.

## **10. EVALUATION**

This Policy will be reviewed, in consultation with the workplace Joint Health and Safety Committee, Health and Safety Representative, or, where no Committee or Representative exists, directly with workers at the site, at least once a

year and more frequently in response to changes and developments affecting workers' health and safety.