

# Manual Material Handling Risk Assessment Form

## 1.0 Objective & Intent

The objective of this SOP is to establish a standardized process for completing a Manual Material Handling Risk Assessment Form. This procedure is designed to systematically identify, evaluate, and control ergonomic hazards associated with lifting, carrying, pushing, pulling, and lowering materials in the cabinet and millwork manufacturing facility. The intent is to prevent work-related musculoskeletal injuries (WMSDs) such as back strains, shoulder injuries, and repetitive strain injuries, thereby ensuring worker safety and compliance with WorkSafeBC regulations, specifically Part 4 (General Conditions) and Part 16 (Mobile Equipment) of the Occupational Health and Safety Regulation (OHSR).

## 2.0 Operational Scope

This procedure applies to all supervisors, safety committee members, and designated workers responsible for assessing manual material handling tasks across all departments within the facility, including the lumber yard, rough mill, machining, assembly, sanding, finishing, and shipping/receiving areas. It covers all tasks where workers manually handle materials such as raw lumber, sheet goods (plywood, MDF, particleboard), finished cabinet components, hardware boxes, and packaged products. The form must be completed for any new task, when a task changes, or when an injury or near-miss related to manual handling occurs.

## 3.0 Hazard Identification & Mandatory PPE

- Ergonomic Hazards: Awkward postures (bending, twisting, reaching overhead), repetitive motions, forceful exertions, static postures, contact stress from sharp edges or hard surfaces.
- Physical Hazards: Slip/trip/fall risks from cluttered floors or uneven surfaces, pinch points from moving materials, struck-by hazards from falling loads, and cuts/abrasions from sharp edges of materials.
- Environmental Hazards: Poor lighting obscuring load stability, temperature extremes affecting grip strength, and noise levels interfering with communication during team lifts.
- CSA-Approved Steel Toed Boots (with puncture-resistant sole and slip-resistant tread).
- Cut-Resistant Gloves (Level 5 or higher, ANSI/ISEA 105 rated) for handling sharp-edged materials.
- Safety Glasses (Z87.1 rated) with side shields to protect against dust and debris.
- High-Visibility Vest (if working near forklift or mobile equipment traffic).
- Back Support Belt (optional, but recommended for workers with prior back injuries; not a substitute for proper lifting technique).

## 4.0 Required Safety Equipment & Tools

- Manual Material Handling Risk Assessment Form (paper or digital template).
- Clipboard, pen, and a hard writing surface (if using paper form).
- Measuring tape (to measure load dimensions, lift distances, and work area clearances).
- Scale or load weight indicator (to determine actual weight of materials being handled).
- Camera or smartphone (to document task conditions, postures, and hazards for the assessment record).
- Personal lock and hasp (if LOTO is required for any mechanical assist equipment being assessed).
- Ergonomic assessment tools (e.g., NIOSH lifting equation calculator, Rapid Entire Body Assessment (REBA) tool, or

similar reference materials).

## 5.0 Step-by-Step Safety Procedure

1. Identify the specific manual material handling task to be assessed. Observe the task being performed by a trained worker for at least three complete cycles to understand the full range of motions, loads, and frequencies involved.
2. Complete the header section of the Risk Assessment Form: record the date, assessor name, department, task description, and the names of workers observed. Ensure all fields are legible and complete.
3. Measure and document the load characteristics: weight (using scale if possible), dimensions (length, width, height), shape, stability, and presence of handles or sharp edges. Note if the load is bulky, awkward, or difficult to grip.
4. Evaluate the task environment: measure the horizontal distance from the worker's body to the load at the origin and destination, vertical lift distance, frequency of lifts per minute, duration of the task, and any twisting or bending angles. Use the measuring tape and observe the worker's posture from multiple angles.
5. Identify and list all ergonomic risk factors present: awkward postures (e.g., trunk flexion >20 degrees, neck rotation), repetitive motions (cycle time <30 seconds), forceful exertions (perceived exertion >5 on Borg CR-10 scale), static postures held >30 seconds, and contact stress (e.g., edges digging into hands).
6. Assess the risk level for each identified factor using the form's rating scale (e.g., Low, Medium, High, Very High). Consider the combination of factors—multiple moderate risks may elevate the overall risk. Document the overall risk rating for the task.
7. Propose and document specific control measures using the hierarchy of controls: elimination (e.g., redesign workflow to remove the lift), substitution (e.g., use lighter materials), engineering controls (e.g., install a lift table, conveyor, or vacuum assist), administrative controls (e.g., job rotation, rest breaks, training), and PPE (e.g., cut-resistant gloves).
8. Review the completed form with the workers who perform the task. Obtain their input on the accuracy of the assessment and the feasibility of the proposed controls. Have the workers sign the form to acknowledge the assessment and their understanding of the controls.
9. Submit the completed and signed form to the supervisor and safety committee for review and approval. Ensure the form is filed in the department's safety records and a copy is posted near the task location for reference.
10. Implement the approved control measures within the specified timeline. Schedule a follow-up assessment within 30 days to verify the effectiveness of the controls and update the form as needed. If an injury or near-miss occurs, re-assess immediately.

**Regulatory Disclaimer:** This document is a generic safety template provided for educational and informational purposes only. It does not constitute professional engineering, legal, or regulatory compliance advice. The end-user assumes all liability for validating all safety protocols against specific machinery manufacturer manuals and local occupational health and safety regulations (e.g., WorkSafeBC, CSA standards) before deployment.