
Mezzanine Fall Protection Gate and Harness Inspection

1.0 Objective & Intent

The objective of this SOP is to establish a standardized procedure for the daily inspection of mezzanine fall protection gates and personal fall arrest harnesses used in the cabinet and millwork manufacturing facility. This procedure is intended to mitigate the risk of falls from height, which is a leading cause of serious injury and fatality in industrial workplaces. Compliance with WorkSafeBC Part 11 (Fall Protection) and Part 12 (Guarding of Machinery) is mandatory. This SOP ensures that all fall protection equipment is in safe working condition before each use, reducing the likelihood of equipment failure and preventing fall-related incidents.

2.0 Operational Scope

This procedure applies to all mezzanine areas within the facility, including material storage mezzanines, assembly platforms, and any elevated workstations where fall protection gates are installed. It covers all personnel who may be required to access mezzanine levels, including maintenance staff, material handlers, assemblers, and supervisors. The inspection must be performed by a competent person trained in fall protection equipment inspection and WorkSafeBC regulations. This SOP does not cover the installation or repair of fall protection systems, which requires a separate, more detailed procedure.

3.0 Hazard Identification & Mandatory PPE

- Fall from Height: Unsecured gates, damaged gate hinges, or worn harness webbing can lead to a fall from the mezzanine edge.
- Pinch Points: Gate hinges, latch mechanisms, and self-closing springs can pinch fingers or hands during inspection or operation.
- Sharp Edges: Damaged gate components or exposed metal edges on the mezzanine railing can cause cuts or lacerations.
- Chemical Exposure: Harness webbing may be contaminated with adhesives, solvents, or wood dust, degrading its strength.
- CSA-Approved Steel Toed Boots with slip-resistant soles
- Safety Glasses with side shields
- Cut-Resistant Gloves (ANSI A4 or higher) for handling gate components
- High-Visibility Vest (if working near forklift traffic)

4.0 Required Safety Equipment & Tools

- Personal Fall Arrest Harness (CSA Z259.10 compliant) with inspection tag
- Mezzanine Fall Protection Gate (self-closing, self-latching type) with manufacturer's manual
- Inspection Checklist (paper or digital on SafeDesk) for recording findings
- Flashlight or headlamp for inspecting dark corners and webbing
- Small mirror for inspecting back sides of gate hinges and latch mechanisms
- Torque wrench (if required for gate bolt checks)
- Lockout/Tagout (LOTO) kit with personal lock (if gate requires maintenance)
- Spill kit (for any chemical contamination found on harness)

5.0 Step-by-Step Safety Procedure

1. Verify that the work area below the mezzanine is clear of personnel and that a spotter is in place if the gate is to be opened during inspection. Post a warning sign at the base of the mezzanine stairs.
2. Perform a visual inspection of the mezzanine fall protection gate from a safe distance. Check for obvious damage, missing components, or signs of tampering. Do not approach the gate if it appears unstable.
3. Approach the gate and inspect the hinge assembly. Check for corrosion, cracks, or deformation. Ensure all hinge bolts are present and tight. Use a torque wrench if specified by the manufacturer. Record any loose fasteners.
4. Test the self-closing and self-latching mechanism. Open the gate fully and release it. The gate must close and latch automatically without manual assistance. If the gate sticks or fails to latch, tag it out of service immediately.
5. Inspect the gate frame and mesh for damage. Look for bent rails, broken welds, or torn mesh. Ensure the gate height is at least 42 inches (1.07 m) above the mezzanine floor. Measure if necessary.
6. Move to the harness inspection station. Lay the harness flat on a clean, dry surface. Inspect all webbing for cuts, fraying, abrasion, chemical damage (discoloration, stiffness), or heat damage (glazing, melting). Pay special attention to load-bearing points: D-rings, buckles, and stitching.
7. Inspect all metal hardware on the harness: D-rings, buckles, and adjusters. Check for cracks, distortion, sharp edges, or corrosion. Ensure buckles engage and release smoothly. Verify that the D-ring is free of burrs and rotates freely.
8. Check the harness labels and inspection tag. Ensure the harness has a valid inspection date (within the last 12 months per CSA Z259.10). If the tag is missing or illegible, remove the harness from service until it can be re-certified.
9. Document all inspection findings on the SafeDesk digital checklist or paper form. Include the gate location, harness serial number, date, inspector name, and any defects found. If any defect is identified, immediately tag the equipment out of service and notify the supervisor.
10. If the gate or harness passes inspection, affix a new inspection tag (if applicable) and return the equipment to service. If any repairs are needed, initiate a work order and ensure the equipment is locked out until repaired by a qualified person.

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.