

Intent

??????? is committed to providing a safe work environment for its employees and preventing occupational injuries due to falls.

Fall Protection is an integral part of our commitment to a safe work environment. Any time a worker is exposed to a fall hazard there will be a procedure and equipment to reduce and/or eliminate the hazard of working at height.

Fall Protection shall be achieved through a hierarchy of controls that will involve all levels of management, shop, supervisory and field personnel.

This hierarchy shall be:

- Identification of hazards
- Elimination of hazards through engineering (design) and procedural practices
- Control and mitigation of hazards through prevention and restraint systems
- The use of fall arrest

Workers shall be expected to assess the risks associated with a task and ensure that proper mitigation is in place to protect them while climbing and working at heights. Where a worker is unsure of the methods, equipment or procedures to reduce the risk they are to seek direction from their supervisor.

The application of this policy shall be outlined within the fall protection plan and shall be the responsibility of every worker within the company. This policy is supported by the highest levels of management and shall be enforced without exception. It is the intention of ??????? to reduce and ultimately eliminate any injuries resulting from working at height.

It is the duty of all personnel employed by ??????? to report to their supervisor, manager, safety representative, or member of the safety committee as soon as possible, any hazardous conditions, injury, accident, or illness related to the workplace. In addition, employees must protect their health and safety by complying with applicable Acts and Regulations and to follow policies, procedures, rules and instructions as prescribed by ???????.

??????? recognizes the employee's duty to identify hazards and supports and encourages employees to play an active role in identifying hazards and to offer suggestions or ideas to improve the health and safety program.

This policy has been written to cover both Manitoba and Saskatchewan regulations, differences are identified in the text.

This Policy Shall:

1. Provide definitions for terms used within this policy
2. Determine obligations for the use of fall protection
3. Discuss ??????? obligation to train employees in fall protection
4. Outline the ??????? fall protection plan;
 - a) Discuss the proper selection of a harness or belt
 - b) Determine the standards for fall protection equipment
 - c) Identify the capabilities and usage of anchors
 - d) Outline the proper use of temporary horizontal lifelines
 - e) Determine the guidelines for inspection and maintenance of fall protection equipment
 - f) Provide terms for the removal of fall protection equipment from service
 - g) Outline risk identification processes for falls from the same or different levels
 - h) Determine the proper selection and use of fall protection equipment
 - i) Outline the policy and procedures for a rescue from heights
 - k) Determine proper reporting and logging procedures for accidents involving falls

1. Definitions

For the purposes of this Policy, the following definitions will apply:

- **Anchor** - a secure point of attachment for a lifeline or lanyard
- **Control zone** – The 2-metre border around the edge of a flat roof or platform
- **Fall Arrest System** - a system that will stop a worker's fall before the worker hits the surface below
- **Fall Protection System** -
 - a) A fall restraint system
 - b) A fall arrest system, or
 - c) Work procedures that are acceptable to the Board and minimize the risk of injury to a worker from a fall
- **Fall restraint system** - a system to prevent a worker from falling from a work position, or from traveling to an unguarded edge from which the worker could fall
- **Full body harness** - a body support device consisting of connected straps designed to distribute the force resulting from a fall over at least the thigh, shoulders and pelvis, with provision for attaching a lanyard, lifeline or other components
- **Horizontal lifeline system** - a system composed of a synthetic or wire rope, installed horizontally between 2 anchors, to which a worker attaches a personal fall protection system
- **Lanyard** - a flexible line of webbing, or synthetic or wire rope, that is used to secure a safety belt or full body harness to a lifeline or anchor
- **Lifeline** - a synthetic or wire rope, rigged from one or more anchors, to which a worker's lanyard or other part of a personal fall protection system is attached

- **Personal fall protection system** - a worker's fall restraint system or fall arrest system composed of:
 - a) A full body harness, and
 - b) A lanyard, lifeline and any other connecting equipment individual to the worker that is used to secure the worker to an individual point of anchorage or to a horizontal lifeline system
- **Safety Belt** - A body support device consisting of a strap with a means for securing it about the waist and attaching it to other components
- **Safe zone** – An area (inside the control zone) where it is safe to work. It must be clearly marked, so all people on the roof can see it

2. Control Zone

The majority of the maintenance work requiring access to the roof would be carried out in the safe zone which is inside the Control zone. This 2 metre border from the edge of the roof will be clearly marked.

The control zone method of fall protection is intended for level or low-sloped work surfaces. It is not to be used on a working surface where the slope of that surface exceeds 4 vertical in 12 horizontal, or for skeletal structure work or scaffold erection and removal. If workers will at all times remain further from the unguarded edge than the width of the control zone, no safety monitor or other fall protection system need be used. Where work is outside the control zone the following information must be complied with:

Obligation to Use Fall Protection

- a) Regulations require the following fall protection systems be used when work is being done at a place
- b) From which a fall of 3 m (10 ft) or more may occur, or
- c) Where a fall from a height of less than 3 m where there is an increased risk of injury due to the surface item on which the worker might land
- d) into operating machinery or moving parts of machinery
- e) into water or another liquid
- f) into or onto a hazardous substance or object
- g) Through an opening on a work surface; or
- h) a vertical distance of more than 1.2 metres from an area used as a path for a wheelbarrow or similar equipment
- i) If the use of a fall arrest system is not practicable, or will result in a hazard greater than if the system was not used, the employer must ensure that work procedures are followed that are acceptable to the Board and minimize the risk of injury to a worker from a fall.
- j) Before a worker is allowed into an area where a risk of falling exists, the employer must ensure that the worker is instructed in the fall protection system for the area and the procedures to be followed
- k) A worker must use the fall protection system provided by the employer

3. Guardrail Systems

An employer must ensure that a guardrail system is used where there is a risk of a worker falling in any of the circumstances described in the previous subsection.

4. Guardrail Requirements

An employer must ensure that a guardrail

- a) Is at least 900 mm high and not more than 1,060mm above the working surface; and
- b) Is secured and constructed with withstand a static load of 900 N in any direction in which the load may be applied at any point on the top rail and on any intermediate rail

A guardrail must have the toe board securely fastened to the posts and extending from the surface of the working area to a height of at least 125mm when there is a risk of falling objects.

If a guardrail is made of wood it must

- a) Be free from splinters and protruding nails; and
- b) Have a mid and top rail of at least 38mm H 89mm securely supported on posts of at least 38mm H 89mm and spaced not more than 2.4 m

5. Training

??????? will train all employees, who are authorized to work in areas that meet the Obligation to Use Fall Protection 1 a and 1b above, in the proper policy and procedures for the prevention of workplace falls, the use of fall protection equipment, rescue from heights and reporting procedures in compliance with the Workers Compensation Board of Manitoba and Safe Manitoba.

6. Fall Protection Plan

Employees must follow the ??????? written fall protection plan if:

- a) Work is being done at a location where workers are not protected by permanent guardrails, and from which a fall of 7.5 m (25 ft) or more may occur, or
- b) If the use of a fall arrest system is not practicable, or will result in a hazard greater than if the system was not used, the employer must ensure that work procedures are followed that are acceptable to the Board and minimize the risk of injury to a worker from a fall

The fall protection plan must be available at the workplace before work with a risk of falling begins.

8. Selection of Harness or Belt

A worker must wear a full body harness when using a personal fall protection system for fall arrest.

A worker must wear a full body harness when using a personal fall protection system for fall restraint.

9. Equipment Standards

Equipment used for a fall protection system must:

- a) Consist of compatible and suitable components
- b) Be sufficient to support the fall restraint or arrest forces, and
- c) Meet, and be used in accordance with, an applicable CSA or ANSI standard in effect when the equipment was manufactured, subject to any modification or upgrading considered necessary by the Board

10. Anchors

In a temporary fall restraint system, an anchor for a personal fall protection system must have an ultimate load capacity in any direction in which a load may be applied of at least:

- a) 3.5 kN (800 lbs), or
- b) Four times the weight of the worker to be connected to the system

Each personal fall protection system that is connected to an anchor must be secured to an independent point of anchorage.

In a temporary fall arrest system, an anchor for a personal fall protection system must have an ultimate load capacity in any direction required to resist a fall of at least:

- a) 22 kN (5000 lbs), or
- b) Two times the maximum arrest force
(Manitoba Only)
- c) Be made of stainless steel or other material resistant to corrosion
- d) Where the eye-bolt is used as an anchor, that the interior eyebolt opening measure no less than 38 mm

A permanent anchor for a personal fall protection system must have an ultimate load capacity in any direction required to resist a fall of at least 22 kN (5000 lbs).

11. Temporary Horizontal Lifelines

A temporary horizontal lifeline system may be used if the system is:

- a) Manufactured for commercial distribution and installed and used in accordance with the written instructions from the manufacturer or authorized agent, and the instructions are readily available in the workplace
- b) Installed and used in accordance with written instructions certified by a professional engineer, and the instructions are readily available in the workplace, or
- c) Designed, installed and used in a manner acceptable to the Board

12. Fixed support system requirements

The owner of the building or structure must ensure that a permanent anchorage system used as the fixed support in a travel restraint system or fall arrest system for the building meets the following requirements:

- a) the anchor has the ultimate capacity of at least 22.2kN in any direction in which the load may be applied for each worker attached
- b) The anchorage system is certified by a professional engineer has having the required load capacity
- c) Where the anchorage system is used in conjunction with a suspended work platform, the system is designed, constructed and used in accordance with CAN/CSA Standard-Z91-02, *Health and Safety Code for Suspended Equipment Operations* and CAN/CSA – Z271-98 (R2004) , *Safety Code for Suspended Elevating Platforms*

When a permanent anchorage system cannot be used at a workplace, an employer must ensure that the temporary fixed support in a travel restraint system or fall arrest system meets the following requirements:

- a) When a fall arrest system without a shock absorber is used, a support used in a fall arrest system must be capable of supporting a static force of at least 8 kN without exceeding the allowable unit stress for each material used in the fabrication of the anchor point
- b) When a shock absorber is used in a fall arrest system, the support must be capable of supporting a static force of at least 6 kN without exceeding the allowable unit stress for each material used in the fabrication of the anchor point
- c) A support used in a travel restraint system must be capable of supporting a static force of at least 2 kN without exceeding the allowable unit stress for each material used in the fabrication of the anchor point

No sharp edges

An employer must ensure that no component of a travel restraint system or a fall arrest system comes into contact with a sharp edge that could cut, chafe or abrade any component of the system.

13. Fall arrest systems and powered mobile equipment

When a fall arrest system is used on powered mobile equipment, an employer must ensure that the system is attached to an anchor in accordance with the specifications of the manufacturer of the powered mobile equipment.

14. Fall protection on vehicles

When a worker may have to climb on a vehicle or its load at any location other than a garage, warehouse or other permanent facility and it is not reasonably practicable to provide a fall protection system for the worker, an employer must:

- a) Take steps to eliminate or reduce the need for a worker to climb onto the vehicle or its load; and
- b) Provide information, instruction and training to a worker on safe work procedures for climbing or working on the vehicle or its load

15. Certification by Engineer

The following types of equipment and systems, and their installation, must be certified by a professional engineer:

- a) Permanent anchors
- b) Anchors with multiple attachment points
- c) Permanent horizontal lifeline systems
- d) Support structures for safety nets

16. Inspection and Maintenance

Equipment used in a fall protection system must be:

- a) Inspected by a qualified person before use on each work-shift
- b) Kept free from substances and conditions that could contribute to its deterioration
- c) Maintained in good working order

17. Removal from Service

After a fall protection system has arrested the fall of a worker, it must:

- a) Be removed from service, and
- b) Not be returned to service until it has been inspected and recertified as safe for use by the manufacturer or its authorized agent, or by a professional engineer

18. Risk Identification

While there are several identified tasks where fall protection is normally required, every task undertaken by a worker can have inherent risks associated with it. It is the responsibilities of the worker to assess their current task, the risk associated with it and what precautions have been taken to reduce and/or eliminate that risk.

19. Slips, Trips and Falls from the Same Level

It is the policy of ???????? that the workplace shall be kept as clean as possible to reduce the risk of falls from the same level. Procedures are in place to deal with same level hazards and are to be followed as per those policies.

20. Falls from a Different Level

Once a hazard is identified, a work procedure shall be developed to ensure that the risk of working at height is minimized, or if at all possible, eliminated. For those tasks which have not been identified, the fall task form shall be used to assess the hazard and detail procedures to reduce that hazard.

21. Equipment Selection/Use

- All equipment selected for fall protection shall be CSA approved and as per most manufacturers recommendations and legislated requirements shall be inspected prior to use by the worker using the equipment and at least annually by a competent person. It is imperative that workers follow the manufacturers guidelines in the use, care and maintenance of the specific equipment used.
- Self Retracting Lifelines (SRL) - It is a recognized hazard where a worker can fall and have the SRLs line (cable and/or web) come into contact with a sharp edge.
- Where this hazard exists the worker increases the potential of injury and/or death due to the SRL not being allowed to function properly. Wherever possible the placement and use of the SRL should take this hazard into consideration and the worker should eliminate the possibility of the SRLs line coming into contact with an unprotected sharp edge.
- Where the elimination of this hazard is not possible it is industry practice and (Company Name)'s policy to use a shock absorber (not a shock absorbing lanyard) attached between the harness dorsal "D" ring and the SRLs snap hook. By adding this shock absorber it reduces (not eliminates) the potential of the SRL line's failure over the sharp edge.
- It is important to understand that where the shock absorber is integral to the harness it must be taken into consideration when attaching other fall protection components. For example when attaching a lanyard to the shock pack, both freefall and increased required clearances must be taken into consideration by attaching a six foot lanyard to the shock pack the potential free fall when anchoring at shoulder height is now approximately 7'6" versus the normal 6'. As most manufacturers and legislative bodies allow for a maximum freefall of 6' this becomes a serious issue.
- Remember that Due care and attention is always necessary as no fall arrest system totally eliminates all the risk of injury.
- It is imperative where a shock absorber is used in conjunction with an SRL that the manufacturer's guidelines are followed and that where necessary the manufacturer has been contacted and approval is granted for this application.

22. Rescue from Heights

- It is recognized both through due diligence and legislation that if a worker is exposed to the risk of a fall a rescue plan must be in place to effectively retrieve that worker.
- Wherever possible, rescue should be as simple and safe as possible.
- It is the policy of ??????? that where possible, workers should affect a self rescue by climbing back onto the adjacent structure. If the worker is not capable of reaching suitable structure a line should be passed to the worker to assist them in reaching suitable structure.
- Where the worker is incapable of reaching a suitable structure or has been injured, ??????? has implemented a rescue program using a man rated winch or as per the variance given by the WCB of MB, a non-man rated winch so long as the only lifting of personnel conducted is limited to that required to release the individual from their deployed fall arrest system. Where that unit is not available a pre-rigged rope haul system or similar unit shall be employed.
- Raising or lowering of individuals for maintenance or general work purposes shall only be conducted on a man rated winch.
- Personnel hoisting procedures shall be employed anytime a worker is raised or lowered using the man rated winch.
- Rescuers exposed to the risk of a fall will always use proper fall protection procedures in the course of a rescue operation and will only be exposed to that risk where absolutely necessary.
- Only where there is no possibility of reaching a fallen worker from a stable structure (with the rescuer secured and properly protected) should a rescuer be suspended to affect a rescue pick off.

- When using a non-man rated winch, rescuers must be lowered to the fallen worker (vs. raised).
- The pick off procedure should use a properly sized and rated connector that will be attached to the dorsal “D” ring of the fallen worker and to the lifting point (normally front “D” ring) of the rescuer or connection point to the haul system/winch line.
- Both the rescuer and fallen worker should be provided with fall protection during the rescue operation.
- Rescue should be practiced and pre-assigned roles established. As a minimum a rescue team requires the following:

Rescue Leader - Normally the most senior personnel on site, this person should direct the operation and only under extreme circumstances should they actively participate in the rescue

Rescuer - These individuals will be the climbers who set up the system and attach the system to the fallen worker

Haul Team - Any workers who are available at the floor or ground level. They will prepare the rescue kit to be set up and will provide the “muscle” when using a rope haul system

First Aiders - Will attend to the fallen worker once on the ground

- Small crews will often have to fill more than one role and should always be cross trained so that they can fill in where necessary.

23. Reporting and Logging

It is critical that any accident or fall is reported so that equipment and procedures can be properly evaluated. Any piece of fall protection equipment that has seen the force of a fall must be immediately removed from service and inspected by a competent person prior to future use.

24. Acknowledgment and Agreement

I, (Employee Name), acknowledge that I have read and understand the ??????? Fall Protection Policy. I agree to adhere to this policy and will ensure that employees working under my direction adhere to this Policy. I understand that if I violate the rules set forth by this Policy, I may face legal, punitive, or corrective action.

Name: _____

Signature: _____

Date: _____

Witness: _____