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What is the primary risk when working from heights?

Each year employees in many different industries are injured by falls from elevations or heights. Employees are at most risk when working from ladders or scaffolds, using lift devices, raising/lowering flags or conducting rooftop inspections. This guideline is designed to help prevent falls from heights at your school or worksite.

How do I know if this is an issue at my school or worksite?

A fall hazard exists in a temporary work area when working 3 meters (10 feet) above the ground level, next roof level, equipment or other structure.

BTPS employees have been doing this type of work for years. Why is a change required?

The new Alberta OHS Code no longer exempts employees working on flat rooftops or ladders at heights equal to or greater than 3 meters from the need to use a fall protection system. In some cases building designs have become more complex from cleaning and maintenance perspective.

What are the legal requirements when working from heights?

The Alberta Occupational Health and Safety Code states:

General Protection

139(1) Subject to subsection (3) through (8), an employer must ensure that a worker is protected from falling at a temporary or permanent work area if a worker may fall

- (a) a vertical distance of 3 meters or more,
- (b) a vertical distance of less than 3 meters if there is an unusual possibility of injury, or
- (c) into or onto a hazardous substance or object, or through an opening in a work surface

139(2) For the purposes of this section, there is an unusual possibility of injury if the injury may be worse than an injury from landing on a solid, flat surface.

139(3) To meet the requirement under subsection (1), an employer must install an engineering control such as a guardrail.

139(4) Despite subsection (3), an employer must ensure that a worker at a permanent work area is protected from falling by a guardrail if the worker may fall a vertical distance of more than 1.2 meters and less than 3 meters.

139(5) Despite subsections (3) and (4), if the use of guardrail is not reasonably practicable, an employer must ensure that a worker uses a travel restraint system that meets the requirements of this Part.

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139(6) *Despite subsection (5), if the use of travel restraint system is not reasonably practicable, an employer must ensure that a worker uses a personal fall arrest system that meets the requirements of this Part.*

139(7) *Despite subsection (6), if the use of a personal fall arrest system is not reasonably practicable, an employer must ensure that a worker uses an equally effective fall protection system that meets the requirements of this Part.*

139(8) *A worker must use or wear the fall protection system the employer requires the worker to use or wear in compliance with this Code.*

What is a fall protection system?

A fall protection system includes methods that reduce employee exposure to fall hazards. It may also include a personal fall arrest system¹, a travel restraint² system, a safety net or guardrail, a control zone or other system (e.g. procedure approved by the Alberta Government). Whenever feasible, the hazard should be eliminated by designing or relocating equipment to ground level or a safe distance from a roof edge or elevation. If standard fall protection systems are not practical, then other methods including the use of elevated lifts or platforms, scaffolds, or a procedure based fall protection system may be permitted.

Traditional fall protections systems are not always feasible since most facilities do not have acceptable anchor points that could be used with a fall arrest or travel restraint system. For example, a fall arrest anchor must be strong enough to support 5,000 pounds (22.2 kN) Most tasks performed from elevations are of light duty, short duration and exposure is on an infrequent basis. Retrofitting buildings with anchors would be cost prohibitive.

What are the general requirements for administrators and supervisors at ECCS?

Decision unit administrators and supervisors are responsible for ensuring that fall hazards are identified and controlled at their worksite. A fall protection plan is required if work is being done at a location where workers are not protected by permanent guardrails and from which a fall of 3 meters or may occur. The plan must specify:

- The fall hazards in each area
- The fall protection system in place for each area
- The procedures for using, maintaining, and inspecting fall protection equipment

¹ A fall arrest system is intended to catch a falling worker in mid-air, safety bringing them to a complete stop.

² A guardrail or travel restraint prevents an employee from reaching an edge from which they can fall.

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- The procedures for rescue if a worker has fallen and is suspended by a personal fall protection system or safety net.

Staff required to work from heights are required to have training on safe work practices, procedures and fall protection systems related to working from heights.

What are the general requirements for district staff and students?

Staff is responsible for reporting unsafe conditions and following safe work procedures. Staff and students must not go on rooftops or in elevated areas. District staff must follow safe ladder procedures and should not work within 4 meters of a roof edge or elevation without a fall protection system in place. Only competent staff trained in fall arrest systems and lift devices are able to perform work over 3 meters.

What is a control zone?

A control zone is an approach to fall prevention that places special requirements on workers and the work being performed on a level working surface within 4 meters of an unguarded edge. If a worker works within 2 meters of the control zone (4 meters of the unguarded edge) a raised warning line (e.g. physical reminder such as barricades, ropes or other effective means of alerting the worker) is placed between the worker and unguarded edge to prevent the worker from reaching the edge. A control zone and other fall protection are not necessary when workers enter and leave the work edge.

What are the requirements when working from ladders or elevated work platforms?

Fall protection may be required when employees are working on ladders or elevated work platforms. Consult the manufacturer's specifications and/or OHS staff for fall protection requirements. Staff using aerial platforms such as genie or scissor lifts must be qualified and have adequate training and experience on the use of this equipment including fall protection systems. Work on portable ladders over 3 meters (10 feet) may be permitted without fall protection provided the following criteria are met:

- That the work is a light duty task of short duration (15 minutes) at each location.
- While doing the task, the worker must keep his or her centre of gravity (indicated by the belly button) between the side rails of the ladder.
- The worker must maintain three points of contact whenever the worker extends an arm beyond a side rail.
- Other ladder safety criteria for portable ladders are:
 - Ladder must be of the appropriate rating for its intended use and comply with CSA standard CAN3-Z11-M81 (R2005).
 - Ladder must rest on stable base and be secured from movement.



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- The side rails of an extension ladder should extend at least 1 meter above any landing or platform where the ladder is used as means of access to the platform.
- Workers do not work from either of the top 2 rungs or steps of a portable ladder.
- A second person is available to assist the worker on the ladder (e.g. stabilize ladder or help pass equipment).