

<b>The University of British Columbia Okanagan</b>		<b>FALL PROTECTION</b>	
<b>Work Procedure</b>		<b>001-FP</b>	
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### 1.0 Purpose:

The University is committed to the safety of faculty, staff, students, visitors and contractors. Where there is a potential fall hazard, work must be carried out without undue risk to the worker. As such the University requires the following:

- 1.1 A Fall Protection System is used when work is done at a location from which a fall of 3 m or more may occur, OR where a fall of less than 3 m involves a risk of injury greater than the risk of injury from the impact on a flat surface.
- 1.2 A written Fall Protection Plan is completed and approved before work commences at a location where workers are not protected by permanent guardrails, and from which a fall of 7.5 m or more may occur.
- 1.3 Workers are knowledgeable of fall protection requirements including the identification of fall hazards, the selection of effective hazard elimination and control strategies, equipment inspection and maintenance, use of fall control systems, and relevant emergency response procedures.

### 2.0 References:

- Occupational Health and Safety Regulations, Part 11, Part 13
- OHSR Guidelines: G11.2(3)-3 "Other Acceptable Work Procedures".
- UBC O Rooftop Access Procedures: 002-RA

### 3.0 Fall Protection Systems:

Defined as a fall restraint system, a fall arrest system, or control zone with safety monitor that includes work procedures (acceptable to WorkSafeBC), that minimizes the risk of worker injury that could occur from a fall. 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. Consideration for the type of Fall Protection System to be used must be considered in the priority order given below.

- 3.1 Fall Restraint System: A work positioning system to prevent a worker from falling from a work position, or a travel restriction system such as guardrails or a personal fall protection system, to prevent a worker from traveling to an edge from which the worker could fall. *Temporary guardrails must be considered before an alternative form of fall restraint is considered.*
- 3.2 Fall Arrest System: A system that will stop a worker's fall before the worker hits the surface below.
- 3.3 Control Zone with Safety Monitor and procedure (acceptable to WorkSafeBC): A control zone with or without a safety monitor may be used as the means of fall protection where it is not practicable to use a method of fall restraint or fall arrest or where the use of a fall arrest system will result in greater hazards.
  - "Control zone" means the area between an unguarded edge of a building or structure and a line which is set back a safe distance of at least 2 meters.

- "Safety monitor system" means a system in which a trained worker is designated to monitor work activities in a control zone to ensure that work is done in a manner that minimizes the potential for a worker to fall.

A control zone can be established covering part of a roof or building provided that control over that area can be established and maintained and the area is clearly defined and described on the Fall Protection Plan. The line must be raised to a height of between .85 and 1.15 meters (34 - 45 inches) and be of a high visibility material (yellow barricade tape is preferred). The line must be supported by a device that will keep the line in place and withstand a reasonable amount of wind.

Additional distance must be added to the width of the control zone where,

- The working surface is slippery or sloped,
- The work is carried out at an elevation relative to the unguarded edge, and,
- The risk is increased by the use of equipment near the control zone.

### 3.4 Exceptions - Use of Fall Protection System

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. Typical examples include:

- Installation or removal of fall protection equipment (first person up/last person down rule),
- Light duty work for short duration (working off portable ladder doing "light duty task" such as inspection or painting for less than 15 minutes, flat roof inspection with favorable environmental conditions while minimizing exposure to unguarded edge as much as possible, and brief transfers between fall protection systems with appropriate 3-point stance),
- Worker requiring constant re-positioning (i.e. scaffold erectors) and
- Use of normal fall protection methods would result in a greater hazard.

A fall protection system is also NOT required if work location is on a flat roof AND workers will remain further than 4m (13 feet) of an unguarded edge and no other hazards exist (i.e. environmental), OR if work qualifies as an exception. See OHSR Guidelines G11.2(3)-3 for more information on "Other Acceptable Work Procedures".

## **4.0 Equipment Maintenance and Inspection**

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, and (c) maintained in good working order. After a fall protection system has arrested the fall of a worker, it must be removed from service, and 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. Records evidencing proper inspection and maintenance must be maintained and made available upon request.

## **5.0 Rescue Procedures**

The Fall Protection Plan (FPP) must include or refer to written rescue procedures for a worker who has fallen and is suspended by a Personal Fall Protection system, and is unable to self-rescue. Rescue procedures are also required for work that requires use of a Fall Protection System but not a written FPP.

## **6.0 Fall Protection Plan**

Defined as a written plan that specifies (1) the fall hazards expected in each work area, (2) the fall protection system or systems to be used in each area, (3) the procedures to assemble, maintain, inspect, use, and disassemble the fall protection system or systems, and (4) the procedures for rescue of a worker who has fallen and is suspended by a personal fall protection system or safety net, but is unable to self-rescue.

## 7.0 Program Continual Review

Health, Safety and Environment will facilitate the review of the Fall Protection Program annually or when work processes or regulation changes. Program feedback should be forwarded to the Manager, HSE. HSE will be responsible for communicating any amendments to the program and ensuring the current version is posted at [www.ubc.ca/okanagan/hse](http://www.ubc.ca/okanagan/hse)

## 8.0 Responsibilities:

### 8.1 Supervisor

- Ensure workers understand UBC's Fall Protection Work Procedures
- Ensure a Fall Protection Plan (FPP) is prepared for each work location when required and successfully implemented for each applicable worksite
- Ensure compliance with the requirements of the Fall Protection Plan (FPP) and relevant Occupational Health and Safety Regulations
- Ensure that Fall Protection Systems are used when necessary
- Ensure workers are provided with the necessary fall protection equipment
- Ensure all equipment is safe, maintained, inspected and used correctly
- Keep a log of all workers trained in fall protection and the topics that were covered before they work in a fall protected area
- Observe workers, work practices and site operations and correct when necessary
- Investigate all worker complaints and incidents and identify and implement corrective action when necessary

### 8.2 Worker

- Know UBC's Fall Protection Work Procedures and Fall Protection Plan (FPP) if applicable
- Follow the procedures as trained
- Inspect equipment before use
- Maintain equipment in accordance with manufacturer's specifications
- Report any concerns to the supervisor
- Ensure the equipment is used as per manufacturer's specifications and employer instruction
- Work in a safe manner

### 8.3 Facilities Management

- Review all Fall Protection Plans and grant approval if plan meets OHSR.
- Inspect rooftops as necessary
- Review Rooftop Access Application forms
- Provide Rooftop Access for all application that meet University requirements
- Conduct rooftop inspections as necessary
- Cancel approvals if environmental conditions change or other hazards are identified by Facility workers.

### 8.4 Health Safety and Environment

- Oversee and administer the Fall Protection Program
- Act as a resource for inquiries pertaining to the Fall Protection Program
- Lead the annual review the Fall Protection Program and ensure it meets OHSR and University requirements
- Facilitate Fall Protection Training
- Investigate complaints or incidents
- Audit FPP documentation and work processes
- Review completed FPP as part of approval process as needed
- Review and update the program as needed



## University of British Columbia, Okanagan Fall Protection Plan (FPP)

A written FPP must be completed for work to be conducted at a location not protected by permanent guardrails, and from which (1) a fall from 7.5m may occur, OR, (2) if a fall arrest system is not practicable (or greater hazard will result from use of the system) and work procedures acceptable to the Board will be used as a effective means of fall protection.

Project:	Start Date:
Contact Person (Project Coordinator/Supervisor):	End Date:
Phone number:	
Description of work to be done:	
Fall hazards expected in work area specified (including but not limited to swing hazard, sloped roof, energized systems, tripping hazards, working alone, scaffold work, floor openings, overhead obstacles, unusual risks, other)? If yes describe:	
<b>Fall Protection System(s) to be used (to be considered in the following priority order):</b> <input type="checkbox"/> Temporary Guard rails <input type="checkbox"/> Fall Restraint System <input type="checkbox"/> Fall Arrest System <input type="checkbox"/> Control Zone with Safety Monitor and procedure approved by the Board Name of Safety Monitor: _____ Phone number: _____	Other hazard controls (all hazards must be eliminated or effectively controlled)? Please list:
Are all workers trained in fall protection and FPP? <input type="checkbox"/> Yes <input type="checkbox"/> No	Worker names:
<b>Equipment to be used:</b>  <b>Attach (or refer) to procedures to assemble, maintain, inspect, use, and disassemble:</b>	Checklist (required for approval): <input type="checkbox"/> Contact information complete <input type="checkbox"/> Hazard and control information complete <input type="checkbox"/> Equipment information provided or attached <input type="checkbox"/> Rescue procedures provided or attached <input type="checkbox"/> Roof plan (incl. area of work, anchor points, control zones, etc) attached if applicable <input type="checkbox"/> Rooftop Application completed and submitted to Facilities Management if applicable (see 002-RA) <input type="checkbox"/> Signed by Supervisor or Project Coordinator <input type="checkbox"/> Faxed to HSE 48 hrs in advance 250-807-9591 <input type="checkbox"/> Facilities Management roof inspection if applicable <input type="checkbox"/> Environmental conditions reviewed immediately prior to commencement of work
<b>Procedures for rescue of a worker who has fallen and is suspended by a personal fall protection system or safety net, but is unable to self-rescue (attach or refer):</b>	
Supervisor or Project Coordinator (print and sign with date):	
<b>FACILITIES MANAGEMENT USE ONLY</b>	
Approved <input type="checkbox"/> Not Approved <input type="checkbox"/>	
Authorizing Signature: _____ Date: _____	