

 <p>Portland Community College Environmental Health and Safety Manual</p>	Department: Environmental Health and Safety (EH&S)	
	Function: Facilities Management Services	
	Topic: Chapter 20 - Fall Protection	
	Board Policy: B507	Revised Date: October 2021

Authority	<p>PCC Board Policy – B 507 Portland Community College is committed to providing a safe and healthy work and educational environment for our employees, students and visitors. OR-OSHA Division 2, Subdivision D Walking and Working Surfaces OR-OSHA Division 2, Subdivision I Personal Protective Equipment OR-OSHA Division 3, Subdivision M Fall Protection</p>
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Summary	<p>It is the College’s goal to reduce or eliminate workplace accidents and injuries resulting from falls from heights, falls into or onto dangerous equipment, or resulting from being struck by falling objects. This policy outlines safeguards to reduce the potential of an accident, injury, or fatality resulting from such exposures.</p>
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I. PURPOSE

Portland Community College (PCC or the College) is committed to reduce the risk of injury or fatality when working at heights four (4) feet or more for non-construction work (e.g. the bulk of work associated with PCC's operations including service and maintenance work) and six (6) feet or more above lower levels for construction work. Construction work includes construction, alteration, and/or repair, including painting and decorating.

When there is a potential fall onto or into dangerous equipment or objects, fall protection is required regardless of the fall distance and without regard to the type of work.

Safeguards will also be provided to protect persons and property from falling object exposures.

Employees who do not follow the procedures in this program bring increased risk of serious injury to themselves or co-workers.

PCC considers a violation of Fall Protection rules and procedures a serious infraction with disciplinary action ranging from a letter of reprimand, to suspension, with termination possible in the most serious of cases.

II. RESPONSIBILITY

Employees

Employees are to follow the procedures in this program.

- Employees shall not work in areas without appropriate fall protection, including falling object protection.
- Employees are responsible to stay within guardrail systems or designated areas unless they are using travel restraint systems or personal fall arrest systems in compliance with the requirements of such systems.
- Employees are responsible for wearing the appropriate fall protection equipment when directed and following the procedures specified in this policy.
- Employees are responsible for the proper care, use and inspection of their assigned fall protection equipment.
- Employees are expected to report any unsafe conditions or unsafe behavior to a supervisor.

Supervisors

- Supervisors are responsible for providing a safe work environment for their staff by following health and safety policies and procedures.
- Supervisors who are trained in this Fall Protection Program and designated as Competent Persons are responsible for identifying any existing or potential fall hazards, including falling object exposures and ensuring those hazards are controlled.

- Supervisors who are trained in this Fall Protection Program and designated as Competent Persons must identify and provide the necessary personal fall protection equipment required for working in fall hazard situations if engineering controls and administrative procedures are not an option, or should be supplemented.

Supervisors will evaluate each roof, walking or working surface prior to assigning work and verify that the following are considered;

- Any roof, walking-working surface, open floor, or areas with a vertical drop of four (4) feet or more for non-construction work and six (6) feet or more above lower levels for construction work constitutes a potential fall hazard on any PCC campus. Where there is a potential fall onto or into dangerous equipment or objects, fall protection must be provided regardless of the potential fall distance.
- Elimination of a fall hazard will be the College's first consideration.
- If a fall hazard cannot be eliminated, effective fall protection will be planned, implemented, and monitored to control the risks of injury due to falling or falling objects.

Environmental Health and Safety

Environmental Health and Safety (EH&S) is responsible for policy and procedure development to ensure compliance with all applicable federal and state regulations and align with industry best practices.

- EH&S will provide technical guidance and assistance in training and methods of compliance.
- EH&S staff are authorized to halt any unsafe work practice that is not in accordance with this or any other PCC health and safety policy or procedure.

III. PROCEDURES

All work performed from on walking and working surfaces including roofs, building ledges, and other work surface shall be in accordance with this procedure and with the following *Fall Protection Program*.

A. Fall Protection Program

At PCC, supervisors are required to complete a *Fall Protection Work Plan (FPWP)* whenever fall protection is required. The PCC *Fall Protection Work Plan (Work Plan) [Form 1]* is available on the EH&S section of the PCC website or can be requested from the EH&S Office.

Post a copy of completed *Fall Protection Work Plan [Form 1]* at the job site (on the Safety Board or prominently displayed), scan and attach to the Work Order, retain copies of the completed form in the departmental file. Please note, that the completed form is subject to review by personnel from the Oregon Occupational Safety and Health Administration (OR OSHA) and EH&S.

When considering what type of fall protection to use, the following 'hierarchy of remedies,' in order of preference, should be considered:

- Elimination of the fall hazard by bringing the work down to safe ground level,
- Engineering controls which protect the worker from exposure to potential falls
- Administrative controls which use work practices, or procedures, to signal or warn a worker to avoid approaching a fall hazard

- Travel restraint which prevents a person from reaching a fall hazard
- Fall arrest which utilizes equipment to stop a fall after it occurs

The table found in *Appendix B* summarizes the fall protection listed above including the priority given to each control measure.

B. Fall Protection Methods

1. Engineering Controls: Guardrail Systems and Hole Covers

Guardrail systems are the preferred method when fall exposures cannot be eliminated by performing the work at, or from, a lower level.

Guardrail systems are a barrier erected to prevent workers from falling to lower levels. Guardrail systems consist of a top rail, mid-rail and toe board or screens at leading edges, wall openings or around holes. The toe boards or screens prevent objects from falling to areas below the work surface.

Personnel need to stay behind the guardrail for them to be effective. If work must be done beyond the guardrail or at elevation adjacent to the guardrail, additional fall protection is required.

Hole covers close off holes in the walking working surface. If covers are opened or removed, alternate protection must be provided.

Specifications for guardrail systems and hole covers can be found in *Appendix C*.

2. Administrative Controls: Designated Areas

Designated areas use warning lines to isolate the workers from the fall exposure. Designated areas may only be used on low-sloped roofs (pitch of less than or equal to 2 in 12). The distance the lines need to be from the potential fall exposure is based on the frequency and duration of the work. For infrequent, temporary work activities, the lines must be at least six feet from the potential fall exposure. Work which is frequent in nature requires the warning lines be installed at least 15 feet back from the potential fall exposure. Work cannot be carried out past the warning line without additional fall protection. Warning line systems consist of ropes, wires, or chains, and supporting stanchions that form a barrier to warn workers they are near an unprotected roof side or leading edge.

Personnel need to stay behind the warning line and within the designated area for the system to be effective. If work must be done beyond the warning line, additional fall protection is required.

Specifications for warning lines used to define designated areas can be found in *Appendix D*.

3. Travel Restraint

Travel restraint systems use a combination of an anchorage point, lanyard and a fall protection harness to eliminate the possibility of an employee going over the edge of a walking-working surface. The anchor is typically a purpose built, fixed point such as a davit, or a structural component of the building. The Travel restraint systems must be configured so the employee cannot fall from the working surface.

Specifications for travel restraint systems can be found in *Appendix E*.

4. Personal Fall Arrest System (PFAS)

Personal Fall Arrest Systems are similar to travel restraint systems and feature an anchorage point, lanyard and a fall protection harness, but they do not prevent falls, they limit the extent of the fall. They must be configured so that the worker's free fall is limited, they cannot strike the working surface below, and they cannot strike objects between the surface where they are working and the working surface below.

Personnel using personal fall protection arrest systems shall employ the "Buddy System" or have an observer to render assistance when and if required.

Prior to tying off to perform the work, a means to rescue the fallen worker must be immediately available.

Specifications for personal fall arrest systems can be found in *Appendix E*.

5. Safety Net

The College does not install or use safety net systems. If such systems are to be used (e.g. when College employees are working with contractors during the performance of construction work) a task specific work plan, including necessary training will be required. The plan must be developed with EH&S.

6. Safety Monitor

The College does not utilize safety monitors. If such systems are to be used (e.g. when College employees are working with contractors during the performance of construction work) a task specific work plan, including necessary training will be required. The plan must be developed with EH&S.

C. Inspections

1. Walking and Working surfaces

Walking-working surfaces and fall protection measures must be inspected, regularly and as necessary by supervisors, and maintained in a safe condition.

Hazardous conditions on walking-working surfaces shall be corrected or repaired before an employee uses the walking-working surface again. If the correction or repair cannot be made immediately, the hazard must be guarded to prevent employees from using the walking-working surface until the hazard is corrected or repaired.

When any correction or repair involves the structural integrity of the walking-working surface, a qualified person performs or supervises the correction or repair.

2. Travel Restraint and Personal Fall Arrest Systems

The components of the travel restraint system must be inspected utilizing the Travel Restraint/Personal Fall Arrest System (PFAS) inspection form. This form is used to document the condition of the Travel Restraint/PFAS equipment that is to be utilized (harness, lanyard, and/or lifeline/rope). A 'competent person' is responsible for the completion of the *Form 2* every 6 months.

Equipment will be inspected by a competent person every 6 months according to manufacturer's directions and documented. A record of the 6-month inspection will be completed and retained on *Form 2*. The calendar tag on the harness/lanyard must also be marked, initialed/dated, or punched indicating the date/month inspection has been performed.

If defective equipment is found it will immediately be taken out-of-service and discarded, or sent to the manufacturer for repair.

The pre-use inspection is to be performed by a 'qualified person,' and will be captured on;

- *PCC Harness Inspection* - Form 3, and
- *PCC Lanyard Inspection* - Form 4, and
- *PCC Lifeline and Rope Inspection* – *Form 5* (if this system is used).

1. If the harness and lanyard are used DAILY, a daily visual pre-use inspection must be performed and the attached inspection tag must be completed monthly.
2. If a PFAS is used infrequently, an inspection must be performed and documented for each use on each of the appropriate forms, and every 6-months.
3. The calendar tag on the harness/lanyard must also be marked, initialed/dated, or punched indicating that the date/month inspection has been performed.

D. Fall Protection Work Plan (FPWP) [Form 1]

Supervisors are to use the *PCC Fall Protection Work Plan [Form 1]*.

The *FPWP* must be evaluated on a task-by-task basis and will address, in writing, site specific roof and fall hazards;

The *FPWP* is used to assist in documenting the condition of the roof/walking and working surface location and identify the correct fall protection for worker safety.

1. Job Specific Information

This section is to identify the location, dates and project information.

2. Potential Fall Hazards

This section is to identify the potential fall hazards associated with the work on roofs or open-sided floors for; platforms, floor openings, trenches, wall openings, roof hatch and skylights and surfaces that don't meet walking/working surfaces.

3. Methods to be used for Fall Protection Arrest and/or Restraint

This section is to identify what methods will be used as fall protection. This includes; guardrails, warning lines w/wo safety monitor, covers, anchors, horizontal and vertical life-lines, positioning devices, personal fall arrest and restraint systems.

4. Description of Process

This section is to calculate the Fall Distance, location and height of anchors, length of rope, what equipment is needed; maintenance/inspection/disassembly of equipment, PFAS inspection, tools/materials needed, and measures to protect ground workers.

5. Notification & Emergency Procedure

This section is to identify the contacts for emergency services, identify where the hazard is located, start/end time, and any other issues that may be needed in an emergency.

6. Employees Approved

ONLY employees that have taken the EH&S Fall Protection training may access an elevated location.

7. Supervisor Review

MUST review the *FPWP*, make corrections, sign & date, then scan and attach to the work order. Scan and attach to the work order.

E. Training

The College holds safety in all operations and activities to be of high importance. Accordingly, employee will be trained in the safe performance of their jobs.

Safety training will be directed at developing each employee's knowledge, skill and understanding to enable them to work safely. Training will be provided through various means with primary instruction given by the immediate supervisor/manager or Environmental Health & Safety.

Each employee who may be exposed to fall hazards shall be trained on the contents of this program to recognize the nature of fall hazards and the procedures to follow to minimize the hazards.

At the department level the supervisor or designated competent person will provide department specific training including-

The 'competent person' must train employees in the following areas:

- Overview of the OR OSHA fall protection standards.
- Fall hazards in the work area.
- Correct procedures for erecting, maintaining, disassembling and inspecting the fall protection systems used.

- Selection, proper use and care of equipment comprising a personal fall arrest system (PFAS) or travel restraint system.
- Role of employees in fall protection plans.
- Rescue procedures to follow in case of a fall.

If there is a change in the fall protection system being used, or if an employee's actions demonstrate that the employee has not retained the understanding or skills important to fall protection, additional training, or retraining, will be administered.

F. Recordkeeping

Training records: Information regarding employee health & safety training such as agendas, handouts, presentation materials, rosters, etc., is maintained by the EH&S department when the EH&S department hosts/conducts the training. Records for training conducted by EH&S are maintained in the Learning management System (LMS).

Department level training records shall be maintained by the department. Copies of the documents should be forwarded to EH&S.

All records are to be retained by the applicable departments for the duration established by the Oregon State Archives in conjunction with government regulations.

TBD - [Additional sections / chapters of this procedure to update]

Ladders/Stairs

Scaffolding

Pools