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ORIGINAL: DECEMBER 2007 REVISED: OCTOBER 2017

# FALL PROTECTION PROGRAM (102017)

**FOR** 



**ISSUED: DECEMBER 2007** 

**REVISED: OCTOBER 2017** 



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#### 1.0 PURPOSE

- 1.1 The purpose of Kent State University's (KSU) Fall Protection Program is to ensure affected employees can identify and control fall hazards in order to protect themselves.
- 1.2 The university will fully comply with all safety standards to improve the overall safety of university faculty, staff and students.

#### 2.0 DOCUMENT CONTROL

2.1 Approvals: This procedure as well as Environmental Health and Safety (EH&S)						
procedure must be approved by the Director, Environmental Health and Safety (DEHS).						
Approved by:		_ Date:				
	Director, Environmental Health and Safety	_				
Responsibilitie	es:					

- 2.1.1 The administrator of this procedure is the Director of Environmental Health and Safety (DEHS). This includes updating/revising the procedure and providing revised copies to the Master Holder for distribution. The Administrator will establish a review schedule for this procedure to ensure the procedure contains up-to-date information to existing federal, state and local laws regarding fall protection.
- 2.1.2 The Master Copy Holder for this document is the DEHS and is responsible for ensuring compliance with the elements, control procedures, policies and checklists. This includes the preparation of revisions, obtaining approvals, recording changes, distribution and compliance with relevant documents.

#### 3.0 DEFINITIONS

Anchorage: A secure point of attachment for lifelines, lanyards and deceleration devices. Anchorage s used for Personal Fall Arrest Systems (PFAS) shall be independent of any other anchorage in use and must support a load of at least 5,000 pounds per employee.

*Barricade*: A temporary or portable guardrail system erected to prevent employees from falling to lower levels. Barricades must meet all requirements of guardrail systems.

*Body Harness*: Straps, secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with, mean for attaching it to anchorage of a PFAS.



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Competent Person: A person who is capable of identifying hazards or dangerous conditions in the PFAS or any of its components, as well as the application and use of related equipment.

*Connector*: A device, which is used to couple parts of the PFAS and positioning device together. It may be an independent component of the system, such as a carabiner, or it may be an integral part of the system, such as a D-ring sewn into the body harness or belts.

Control Access Zone: an area in which certain work may take place without the use of guardrail systems, PFAS, safety net systems and access to the zone is controlled. For campus building roofs, control access zones are created by providing access to the roof via locked doors, or hatches with signs indicating "Roof Access by Authorized Personnel Only".

Deceleration Device: Any mechanism, such as a rope grab, rip-stitch lanyard, automatic self-retracting lifelines, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

*Fall Hazard*: Risks associated with walking or working on unprotected sides and edges, leading edges and unprotected holes and roofs 6 feet or more above an adjacent lower level.

Fixed Fall Protection Systems: When a fall hazard exists fixed fall protection systems consisting of a stable work platform with all floor openings and open edges protected by fixed guardrails or temporary barricades.

Guardrails: A fixed barrier erected to prevent employees from falling to lower levels. The Occupational Safety and Health Administration's standard "Walking and Working Surfaces, Subpart D" specifies the requirements for guardrails.

*High Work*: Work performed within 15 feet of unprotected sides and edges, leading edges, unprotected holes and roofs that are six feet or more above an adjacent lower level.

*Lanyard*: A flexible line of rope, wire rope or strap which has a connector at each end for connecting the body harness to a deceleration device, lifeline or anchorage.

Leading Edge: The edge of a floor, roof or formwork for a floor or walking/working surface, which is considered to be an "unprotected side or edge" during periods when it is not actively or continuously under construction.



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*Lifeline*: A component consisting of a flexible line for connection to an anchorage at one end and serves as a means for connecting other components of a PFAS to the anchorage.

Personal Fall Arrest System (PFAS): A system used to arrest an employee's fall from a working level. It consists of an anchorage, connectors, body harness and may also include a lanyard, deceleration device, lifeline, or a combination of these.

*Personal Fall Restraint System*: A system designed to prevent an employee from getting close enough to an edge or opening that would permit him/her from falling, usually three feet. It consists of an anchorage, connectors, body harness and may also include a lanyard, lifeline, or a combination of these. It does not include a deceleration device.

Safety Monitoring System: A safety system in which a competent person is responsible for recognizing and warning employees of fall hazards. Safety monitoring systems can be used exclusively on roofs 50 feet or less in width. For all other roofs, safety monitoring systems are required in conjunction with PFAS, personal restraint systems and/or warning lines.

*Unprotected Sides or Edges*: Any edge or side of a walking/working surface where there is no wall or guardrail system at least 39 inches high.

*Warning Line System*: A barrier erected on a roof to warn employees they are approaching an unprotected side or edge. And designates an area in which roofing work may take place without the use of guardrail, body harness or safety net system to protect employees in the area.

Work Area: The portion of a walking/working surface where job duties occur.

#### 4.0 OBJECTIVE

- 4.1 The long-term goal of this program is to eliminate the use of safety monitors, wherever possible. In order to meet that goal, KSU shall establish a Fall Protection Program consisting of, but not limited to, the following:
  - 4.1.1 Engineering controls designed to eliminate fall hazards, wherever possible, through the installation of fixed guardrail systems
  - 4.1.2 Where fixed guardrail systems are not possible, the use of temporary barricades that minimize exposure to employees and contractors are required.
  - 4.1.3 Where fixed and temporary engineering controls are not possible, provide personal protective equipment consisting of fall restraint, fall arresting and suitable anchorage points.



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4.1.4 Documented procedures for conducting periodic preventive maintenance of fall protection systems, devices and personal protective equipment.

4.1.5 Training for personnel affected by work covered by this program.

#### 5.0 SCOPE

- 5.1 The Fall Protection Program applies to all KSU employees performing High work as defined in this program.
- 5.2 This program does not apply when KSU employees are inspecting workplace conditions before or upon completion of high work.
- 5.3 The Fall Protection Program does not apply to third-party contractors or other non KSU employees while on KSU property. Non-KSU employees conducting high work on KSU property must enforce their own written Fall Protection Program that conforms to all applicable federal, state and local laws and regulations.

#### 6.0 RESPONSIBILITIES

- 6.1 Director Environmental Health and Safety
  - 6.1.1 The Director of Environmental Health and Safety, or designee will develop and oversee implementation of a written Fall Protection Program.
  - 6.1.2 The Director of Environmental Health and Safety, or designee will conduct evaluations of the workplace to ensure the written Fall Protection Program is implemented and employees are acting in accordance with procedures and practicing necessary protective measures.

#### 6.2 Facility Management

- 6.2.1 KSU shall establish a written Fall Protection Program and be accessible to all employees.
- 6.2.2 KSU shall provide employees with information and training on the purpose and function of the Fall Arrest Program and provide the necessary training to ensure compliance to the established procedures.
- 6.2.3 KSU shall review the work performed and issue a High Work Permit (Appendix A) specific to the work conducted whenever all of the following conditions exist:



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- 6.2.3.1 KSU employees conduct high work within 15 feet of unprotected sides, leading edges, unprotected holes and roofs that are 6 feet or more above an adjacent lower level
- 6.2.3.2 Fixed fall protection systems are not available
- 6.2.3.3 The work cannot be accomplished using portable manlifts, stairs or ladders along with appropriate fall arrest or fall restraint systems.

### 6.3 Facility Personnel

6.3.1 Facility personnel are required to comply with all provisions of the Fall Protection Program.

### 7.0 METHODS OF COMPLIANCE

#### 7.1 General

- 7.1.1 KSU shall provide fall protection systems for any employee engaged in high work. Fall protection systems shall consist of:
  - 7.1.1.1 The university will provide fixed fall protection systems as defined within this program for high work.
  - 7.1.1.2 Portable manlifts, stairs and ladders in conjunction with PFAS or restraint systems. The use of fall protection systems are not required, but encouraged for employees working on fixed ladders 24 feet or less in height or portable ladders with working heights of 6 feet or higher.
  - 7.1.1.3 Controlled access zones with either warning line systems or safety monitors as defined in this program. These methods are only acceptable when fixed fall protection systems are not available, or it is infeasible to use portable manlifts, stairs or ladders in conjunction with a fall restraint or fall arrest system. If this is the chosen method, a High work Permit is required for each work task.

#### 7.2 Employee Fall Protection Options

7.2.1 Under the Fall Protection Program, the employee's first responsibility is to know when they are conducting high work as defined in this program. The definition of high work is work performed within 15 feet of unprotected sides and edges, leading edges, unprotected holes and roofs that are six feet or more above an adjacent lower level.



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7.2.2 When high work is performed and fixed fall protection systems are not available, the following devices may be used:

- 7.2.2.1 Portable manlifts: The use of fall arrest systems is required whenever working from a portable manlift. The only exception to this is when using a scissors lift with surrounding guardrail systems with a self-closing gate and the platform does not extend past the wheelbase of the lift.
- 7.2.2.2 Portable stairs, mobile ladders and scaffolds: The use of fall arrest systems is required whenever working from manually propelled mobile ladder stands and scaffolding that have no fixed fall protection system.
- 7.2.2.3 Employ warning line systems or safety monitors when it is infeasible to use portable manlifts, stairs or ladders in conjunction with a fall arrest or restraint system.

#### 8.0 SYSTEM MAINTENANCE

- 8.1 Qualified campus maintenance personnel or an appropriate contractor will conduct periodic preventive maintenance, inspections and testing of PFAS and personal fall restraint systems. This will include anchorage points installed for the use of PFAS or restraint systems.
- 8.2 Take equipment tagged with expiration dates out of service for replacement as needed.
- 8.3 Document all preventive maintenance, inspections and tests through existing KSU preventive maintenance programs.

#### 9.0 TRAINING

- 9.1 All KSU employees required to perform high work shall receive initial training in the application of this program prior to conducting initial high work.
- 9.2 All KSU employees affected by this program shall receive refresher training no less than every two years.
- 9.3 A qualified trainer will provide all the training required under this program.



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#### 10.0 RECORDKEEPING

10.1 KSU supervisors shall complete a High Work Permit whenever all of the following conditions exist:

- 10.1.1 KSU employees conduct high work within 15 feet of unprotected sides and edges, leading edges, unprotected holes and roofs that are 6 feet or more above an adjacent level,
- 10.1.2 Fixed fall arrest systems are not available,
- 10.1.3 The use of portable manlifts, stairs or ladders in conjunction with fall arrest or fall restraint systems is not feasible.
- 10.1.4 Forward the completed High Work Permit to the DEHS upon completion of the work.
- 10.2 The DEHS will maintain a copy of all High Work Permits for no less than five calendar years after the event.
- 10.3 Records of all preventive maintenance, inspections and tests of fall protection systems and equipment will be kept on file and available for auditors/inspectors for no less than five years.



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# APPENDIX A

# **HIGH WORK PERMIT**



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☐ Yes ☐ No

The area supervisor, or designee, must complete this High Work Permit whenever:

Have controlled access zones been identified with appropriate signage?

- High work is conducted within 15 feet of unprotected sides and edges, leading edges, unprotected holes and roofs 6 feet or more above an adjacent roof
- Fixed fall protection systems are not available
- The use of portable manlifts, stairs or ladders used in conjunction with appropriate fall arrest systems is infeasible.

#### **INSTRUCTIONS**

- 1. The supervisor, or designee performing the high work must complete all but the last section of this form
- 2. The employee conducting the high work must retain this form until the work is complete
- Once the work is complete, the supervisor, or designee must complete the last section of this form and forward to the Director Environmental Health and Safety (DEHS)
   The DEHS will retain the completed form for no less than 5 years
- Building Name: \_\_\_\_\_\_ Date and Time: \_\_\_\_\_\_ PM

  Weather Conditions: \_\_\_\_\_

  Employee(s) Assigned \_\_\_\_\_\_

  1. Are fixed fall protection systems in place? \_\_\_\_\_ Yes □ No

  2. Is it feasible to use portable manlifts, stair or ladders in conjunctions with personal fall arrest systems or personal restraint systems? □ Yes □ No

If you answered yes to either of the questions above, you do not need to use warning line systems, controlled access zones or safety monitors for the work and this permit is not required.

4.	Have warning lines and appropriate signage been erected within 6 feet from the roof edge?	$\square$ Yes $\square$ No
5.	Has a properly trained safety monitor been assigned to warn employees conducting the high work when it	t appears the
	employee is unaware of a fall hazard?	$\square$ Yes $\square$ No
	If yes, give safety monitor's name:	
6.	Have all employees conducting high work and safety monitors been appropriately trained?	$\square$ Yes $\square$ No

If questions 1 or 4 is no, the high work cannot proceed until steps are taken to correct these deficiencies. If yes to questions 1 and 4, the answer to questions 2 or 3 must be yes and the deficiencies corrected.

Protection Program (EHS-0010) and this permit have been taken.					
Name (Printed)	Signature	Date			

I have reviewed all the high work needed and verified the necessary precautions as required in the Kent State University Fall

COMPLETE THIS SECTION ONLY AFTER THE HIGH WORK IS FINISHED.

I have reviewed the high work area and determined all high work satisfactorily conducted and the area restored to its prior condition.

Name (Printed) Signature Date