

# Environmental Health & Safety

## Working at Heights Policy



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### I. Purpose

To protect employees, students, visitors, and contractors from fall hazards when working at heights or on elevated work areas.

### II. Scope

This policy applies to all Wright State University employees, students, visitors, and contractors working at heights, accessing roofs, using ladders, operating aerial lifts including scaffolding, and all other walking or working surfaces where personnel can possibly fall four feet or more to a lower level and/or opening. Also includes areas where personnel are working at any height but may come into contact with any hazardous operation or dangerous objects such as moving machinery or chemical tanks.

### III. Definitions

- A. Competent person** - a person who, by way of training and/or experience, is capable of identifying hazardous or dangerous conditions in personal fall arrest systems or any component thereof, as well as in their application and use with related equipment.
- B. Hierarchy of Controls** – A range of hazard control methods arranged in order of implementation preference starting with elimination of the hazard, followed by substitution of the hazard, then engineering controls, administrative controls, and as a last resort the use of personal protective equipment.
- C. Personal Fall Arrest System** – a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these.
- D. Qualified Person** – An individual who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems relating to the authorization, design and use of fall protection anchor points and systems.
- E. Safety Factor of Two** – Capable of supporting at least twice the weight expected to be imposed upon it.
- F. Vertical Opening** – A gap or void, 30inches or more in height and 18inches or more in width, in a wall or partition, through which someone can fall to a lower level, including holes, pits, vessels, and other confined spaces.

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#### **IV. Responsibilities**

##### **A. Environmental Health and Safety (EHS)**

1. Maintain and revise the Working at Heights Policy.
2. Identify, with the assistance of affected departments, potential fall hazards, and procedures needed to minimize or eliminate those hazards.
3. Assist with applicable equipment specifications, requirements, and inspections.
4. Provide training as listed in Section VI.
5. Perform annual inspections on personal fall arrest systems.

##### **B. Engineering and Construction Department/Office of Facilities Planning and Development**

1. Ensure all new equipment, construction and renovation projects are planned, designed and constructed in a manner that fall protection is included at all areas, or on all equipment, that fall under the scope of this policy.
2. In carrying out the requirements of B.1., shall implement a design that eliminates fall hazards where feasible, or reduces the inherent risk by utilizing the hierarchy of controls.
3. Ensure all design and installation meets the fall protection requirements of all applicable federal, state, or local regulations

##### **C. Directors, Managers, Supervisors and Employees**

1. Assist EHS with identifying fall hazard issues.
2. Ensure personnel attend required training.
3. Ensure compliance with all requirements and responsibilities outlined in this policy.

#### **V. Procedures**

- A.** Personnel working at heights of 4 feet or greater shall attend fall protection training. If guardrail systems cannot be used, or personnel work outside the established designated area, fall arrest or restraint systems may be utilized only by personnel properly trained in their use. Additionally, personnel working on aerial platforms, scissors lifts, or other elevated platform equipment including scaffolding shall be trained in the use and operation of specific equipment.
- B.** Where guardrail systems are used the top edge height of the top rail shall be no less than 42 inches above the walking/working level. Midrails shall be installed at a height midway between the top of the guardrail system and the walking/working level. The guardrail system shall be able to withstand, without failure, a force of at least 200 lbs in any outward or downward direction at any point along the top edge. Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds in any downward or outward direction at any point along the midrail or other member.

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- C. The user of any personal fall arrest system shall read and follow the manufacturer's instructions for each component of the system before use. Instructions shall be followed for the proper use and maintenance of the equipment, including inspections. Use only manufacturer compatible devices specified to work with one another. Any non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system. Remove such components from service if located.
- D. Connectors (hooks, carabineers, and D-rings) must be capable of supporting at least 5,000 lbs and must be compatible with the anchorage or other system components. Non-compatible connectors may disengage unintentionally. Anchorage points must be independent of any anchorage being used to support or suspend platforms and must support at least 5000 lbs. per user attached; or be designed, installed, and used as part of a complete personal fall arrest system that maintains a safety factor of two and be designed and installed under the supervision of a qualified person.
- E. All personal fall arrest systems shall be inspected/maintained as follows:
1. Whenever the system is subjected to impact loading it shall be immediately removed from service and shall not be used again until inspected and determined by a competent or qualified person to be undamaged and suitable for reuse.
  2. Personal fall arrest systems shall be inspected prior to each use, and no less than annually regardless of use frequency, for wear, damage and other deterioration, and defective components shall be removed from service.
- F. The following requirements and procedures for the listed equipment and locations are covered by this policy. Additional requirements and procedures for equipment and locations identified under Section IV.A.2. are also covered under this policy.
1. **Ladders** - Fixed, free standing, temporary, or roll away type ladders require operators to know and understand safe climbing and inspection techniques. Three-point contact (two hands and one foot, or two feet and one hand on the ladder) shall always be maintained when ascending and descending ladders.
  2. **Scaffolding** – All scaffolding requires trained personnel for inspection, erection, and use. Do not go onto, inspect, or erect scaffolding unless trained.
  3. **Aerial Lifts** - Extendable/articulating boom lifts, aerial platforms, scissor lifts, forklift-mounted platforms, cherry pickers, boatswain's chairs, etc. require anchor points, tie-offs, or suitable alternatives to be used.
  4. **Elevated Surfaces** – Elevated surfaces to catwalks, skylights, boilers, chillers, etc. where guardrails are not provided must have suitable alternatives such as portable guardrails or temporary anchor points and personal fall arrest systems for use.
  5. **Vertical Openings** – Vertical openings shall be protected by means of a guardrail, fencing, or other type of barrier compliant with Section V.B.
  6. **Nutter Center** – The ring roof, catwalk and engineered personal fall arrest system, merchandise booths, and corporate suite roof engineered personal fall arrest system are required to be used as designed.

7. **Water Tower** – The installed personal fall arrest system shall be utilized to climb the tower ladder and access the internal bowl. A self-retracting lanyard is required to access bowl door from ladder.
  8. **Roof Tops** – Personnel who access any roof without guardrails or adequate parapet wall must be pre-approved by their supervisor and Environmental Health and Safety prior to access. This does not apply when access is for the purpose of making an inspection, investigation, or assessment of workplace conditions prior to the actual start of work or after all work has been completed.
- G. Prior to use of any personal fall arrest system the supervisor of the operation must develop a plan for prompt rescue of personnel in the event of a fall.

## **VI. Training and Recordkeeping**

- A. Personnel whose assigned duties involve work or other activities that fall under the scope of this policy must attend fall protection, aerial lift, and/or scaffolding training as required. Personnel observed to violate established procedures or working in an unsafe manner at elevated work areas will be required to attend a refresher course in fall protection or the safe use of equipment.
- B. EHS will provide fall protection training except for training on aerial lifts.
- C. Aerial lift training will be provided by designated university employees approved by Environmental Health and Safety (EHS). EHS will maintain a listing of approved trainers for on campus training.
- D. Records of all fall protection training shall be maintained by EHS.

## **VII. References**

- A. [OSHA 29 CFR 1910, Subpart D, Walking-Working Surfaces](#)
- B. [OSHA 29 CFR 1910, Sub Part F, 1910.67, Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms](#)
- C. [OSHA 29 CFR 1926, Sub Part M, 1926.502, Fall Protection](#)
- D. ANSI/SIA A92.2, Vehicle Mounted Elevating and Rotating Aerial Devices
- E. ANSI/SIA A92.3, Manually Propelled Elevating Aerial Platforms
- F. ANSI/SIA A92.5, Boom Supported Elevating Work Platforms
- G. ANSI/SIA A92.6, Self Propelled Elevating Aerial Platforms
- H. ANSI/ASSE A1264.1-2007, Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace Floor, Wall and Roof Openings; Stairs and Guardrails Systems

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**VIII. Approval**

Implementation Date: 10-25-11  Last Reviewed:  Last Revision Date:	Approval:  Stephen Farrell Director, EHS	Signature:  <i>(Signature on File)</i> <hr/> Stephen Farrell
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