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Fall Protection Program

1. Purpose and Scope

The purpose of this fall protection program is to establish guidelines to protect all staff, faculty and students engaged in outdoor or indoor work activities that expose them to potential falls from elevations of 4 feet or higher. Fall protection must be provided when performing work within 15 feet of an unprotected side or edge. **During an inspection only, fall protection is not required when within 15 feet of an unprotected edge.**

The scope of this fall protection program includes all staff, faculty and students who are exposed to conditions that present a fall hazard of four feet or more to another level. University of Wisconsin Milwaukee Managers and Supervisors have the primary responsibility for providing safe working conditions including Fall Protection.

The following are excluded from the scope of this Fall Protection Program:

- Contractors are required to comply with all applicable OSHA regulations and shall have their own fall protection program and equipment.
- Portable ladder use is not included within the scope of this program.
- Scaffolding is not included within the scope of this program.

Compliance

This Fall Protection program is intended to meet the requirements of OSHA General Industry and/ or Construction requirements as applicable, the Wis. Administrative Code Chapter SPS 332, CFR 1926 SubPart M, Fall Protection. (Public Employee Safety and Health) and 29 CFR 1910.Subpart D, Walking-Working Surfaces and Subpart F Powered Platforms for Building Maintenance.

2. Definitions

Anchorage Connectors: Cable or synthetic webbing formed into a sling that is used to connect to approved anchor points. All anchorage connectors must be rated to a minimum breaking strength of 5000 pounds. Connectors are engineered for specific purposes. Make sure you are using the correct connector in the correct manor. If in question, consult with the Competent Person on staff.

Anchor Point: A secure point of attachment for lifelines, lanyards, positioning devices or deceleration devices. An anchor point must be capable of supporting at least 5000 pounds

per person and must be independent of any anchorage being used to support platforms.

Authorized Person: A person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or job site (i.e., building maintenance, roof repair, etc.).

Competent Person: A person capable of identifying existing and predictable hazards in the surroundings or working conditions, which are hazardous or dangerous to employees. A person who has the authorization to take prompt corrective action to eliminate such hazards. A Competent Person shall update training every two years to stay current with fall protection regulations according to ANSI Z359.2 *Minimum Requirements for a Comprehensive Managed Fall Protection Program* (Senior Administrative Program Specialist in University Safety and Assurances).

Connector: A device which is used to couple (connect) parts of the positioning and personal fall arrest system together and must include a double action, self-locking snaphook rated to a minimum 5000 pound breaking strength.

Deceleration Distance: The additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body harness attachment point at the moment of activation of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop. (See section 7)

Deceleration Device: Any mechanism, such as a rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lifeline/lanyard, etc., which serves to dissipate a substantial amount of energy during a fall arrest.

Fall Hazard: Fall hazards from elevations include, but are not limited to, unprotected sides and edges of roofs, excavations, skylights, floor holes, wall openings, and all other walking or working surfaces where personnel can possibly fall four feet or more to a lower level.

Free Fall: The act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Free Fall Distance: The vertical displacement of the fall arrest attachment point on the employee's body harness between the onset of the fall and just before the system begins to apply force to arrest the fall. Free fall distance must not exceed 6 feet. **This distance excludes deceleration distance and lifeline/lanyard elongation distance.** (See section 7)

Full Body Harness: Webbing/straps which are secured about an employee's body in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest and shoulders with provisions to attach to other components of a personal fall arrest or positioning system. The standard connections are made with a "D" ring in the middle of the back for fall arrest/restraint systems, or a "D" ring at the shoulders for confined space rescue. "D" rings located at the hips and/ or chest on a full body harness are for positioning only and should not be used for connection to a fall arrest system.

Guardrail System: A barrier erected to prevent employees from falling to lower levels. A guardrail system includes a toe board, midrail and toprail located at a height 39"-42" from the top of the work surface and is able to withstand 200 pounds of force applied in any direction.

Lanyard: A strap that has double action, self-locking snaphook connectors at each end for connecting to body harnesses and anchorage points. All lanyards must include an integrated deceleration device.

Leading Edge: The edge of a floor, roof, or other walking/working surface, which changes location as additional floor, roof, etc., is placed or constructed. A leading edge is considered an unprotected side or edge when not under active construction.

Lifeline: A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline). This serves as a means for connecting other components of a personal fall arrest system and/ or positioning system to the anchorage. Lifeline systems must be engineered to have appropriate anchorages, strength of line designed to hold the number of individuals connected to it, line strength to aid in the arrest of a fall, and durability to hold a fallen employee(s) suspended until a rescue can occur.

Low Slope Roof: A roof having a slope of less than or equal to 4 in 12 (vertical to horizontal). A roof with approximately a 19.5-degree slope or less.

Personal Fall Arrest System: A system used to arrest (catch) an employee in a fall from a working level. It consists of an approved anchorage location, connectors, a body harness, and may include a lanyard, deceleration device, lifeline, or any combination of the before-mentioned items.

Positioning Device or Restraint System: A system that prevents falls by supporting the employee in a working position. This system supports the employees, therefore eliminating the chance for a fall to begin. This system will include an approved anchorage

location, connector, full body harness, rope lifeline and rope grab.

Rope Grab: A positioning device, which travels on a lifeline and automatically, by friction, engages the lifeline and locks to hold a work position and/ or arrest the fall of an employee.

Roof Work: The hoisting, storage, installation, repair, and removal of materials or equipment on the roof.

Snaphook: A connector comprised of a hook-shaped member with a closed keeper which may be opened to permit the hook to receive an object and when released, automatically closes to retain the object. Snaphooks must be self-closing with a self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection, thus preventing the opportunity for the object to “rollout” of the snaphook. All snaphooks must have a 5000-pound rating and have a double action deliberate lock and release action.

Steep Slope Roof: A roof having a slope greater than 4 in 12 (vertical to horizontal). A roof with a slope greater than 19.5 degrees.

Swing Fall: A pendulum type fall that can occur when the anchorage is not located directly above the employee’s head. The hazard exists if during a swing fall the employee comes into contact with an obstruction. Anchorage should not extend beyond a 20-degree angle to work area to limit swing fall issues.

Toeboard: A low protective barrier that will prevent the fall of materials and equipment to lower levels, usually 4 inches or greater in height with no more than a 1/4" gap at the bottom. This is attached to the work platform.

Total Fall Distance: The maximum vertical change in distance from the bottom of an individual’s feet at the onset of a fall, to the position of the feet after the fall is arrested. This includes the free fall distance and the deceleration distance. (See section 7)

Unprotected Sides and Edges: Any side or edge of a walking or working surface (e.g., floor, roof, ramp, runway, etc.) where there is no guardrail at least 36"-42" high.

Walking/working surface: Any surface, whether horizontal or vertical, on which an employee walks or works, including but not limited to floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel. Does not include ladders, vehicles, or trailers on which employees must be located to perform their work duties.

Warning Line System: A barrier erected on a roof to warn employees that they are

approaching an unprotected roof side or edge.

3. Fall Protection Locations

Fall protection is required wherever the potential to fall 4 feet or more exists. *The University of Wisconsin - Milwaukee* has identified the following locations where fall protection is required but considers this to not be an exhaustive list of locations:

- 1) All flat and low sloped roof locations, when within 15 feet of the roof edge or during roof repair/maintenance/ inspection (4:12 pitch or less).
- 2) All sloped roof locations during roof repair/maintenance/ inspection (4:12 pitch or more).
- 3) All exterior and interior equipment platforms, catwalks, antennas/towers, etc.
- 4) All exterior and interior fixed ladders above 20 feet.
- 5) All mezzanine and balcony edges.
- 6) All open excavations, tanks or pits.
- 7) All tasks requiring use of the articulating, scissor platform, or single manlifts.
- 8) All tasks requiring employees to lean outside the vertical rails of ladders or beyond guardrails (i.e., painting, stairwell light bulb replacement, etc.).
- 9) Scaffolding erection – 10 feet in height or greater.
- 10) Gym- mezzanine/catwalk areas – whenever an employee must step outside the guardrails of the catwalk, additional fall protection (i.e., 6-foot lanyard to full body harness, self-retracting lanyard or rope grab system) shall be used.
- 11) Any other locations where a fall hazard is identified of 4 feet or greater

4. Fall Protection Systems and Implementation

1 - Engineering Controls

Engineering controls will be used whenever possible to permanently eliminate or significantly reduce the risk of fall-related injuries. Examples of engineering controls include:

- Relocating the object or process to a safer location (e.g., light bulb changing→telescoping arm, changing valve→relocate at ground level, etc.)
- Permanent guardrails, toe boards, covers, and other rails or barriers that prevent falls thus don't require fall protection equipment.
- Ladder cages
 - *In accordance with 1910.28(b)(9)(i)(A), a cage is still permissible for existing fixed ladders erected before November 19, 2018. Employers may use fixed*

ladders with cages or wells up until the time a cage, well, or any ladder section requires replacement, at which time a ladder safety or personal fall arrest system must be installed in accordance with 1910.28(b)(9)(i)(C), or until November 19, 2036, when all fixed ladders must have a personal fall arrest or ladder safety system as required by 1910.28(b)(9)(i)(D).

- *Cages are not permissible as a means of fall protection for new fixed ladders erected on or after November 19, 2018, as a personal fall arrest or a ladder safety system must be installed in accordance with 1910.28(b)(9)(i)(B).*
- Engineering and installing catwalks with proper guardrails
- Properly guarding hazardous equipment.

2 – Fall Prevention Systems

When permanent engineering controls cannot be applied to reduce the risk, fall prevention systems will be utilized.

1) Guardrail – Passive Fall Protection System

Guardrails consist of a toeboard, midrail and top rail.

- The top edge height of the top rails must be between 39 and 45 inches above the walking/working level
- Midrails must be midway between the top edge of the guardrail system and the walking/working level.
- Toeboards must be at the walking surface and will be at least 4" tall, with no more than a 1/4" gap at the bottom.
- Must be able to withstand 200 pounds of force applied in any direction.
- Must be on all open sided floors
- Around all open excavations or pits
- On leading edges of roofs or mezzanines – Can be collapsible if they meet the OSHA Requirements stated in 1910.28.

2) A positioning or restraint system, when used as a form of fall prevention, will be designed to prevent the employee from going beyond the edge of the surface that they are working upon. The positioning system will incorporate a harness worn by the exposed employee. The harness will be attached to a rope with rope grab or lanyard which will be attached to an anchor of suitable strength (min. 5000lbs.)

Positioning/ Restraint Device System – Active Fall Protection System

- Anchor point (rated at 5000 pounds per person).
 - Single anchor points are visually inspected prior to each use to ensure that they are in safe working condition.
 - All single anchor points and life line systems are inspected by a Competent Person other than the user yearly and documented.
 - Pull testing shall be conducted by a 3rd party engineering firm every 5 years or otherwise determined by the manufacturer.
- Full body harness
- Restraint line or lanyard
- Rope grab to restraint line
- Connectors (self-locking snaphooks)

3) Warning Line System

Warning Line systems are to be used to warn workers they are nearing the unprotected edge of the roof. Warning Lines will consist of the following:

- Will be erected 6 feet from the unprotected edge of the roof.
- Be constructed of stationary posts made of wood or metal at a height to position the warning line between 36” and 42”.
- Wire, nylon rope or chain with a minimum tensile strength of 500 pounds and “Caution” tape will be strung from post to post and must be able to withstand 16 pounds of force.
- The warning line will guard the perimeter of the roof where work is being performed.

If an employee must access an area within 6 feet of the roof’s edge, for reasons other than exiting the roof via a ladder or fixed industrial ladder, the employee must don a full body harness and attach a fall restraint lanyard to an anchor point to prevent reaching the edge of the roof.

3 - Personal fall arrest system

When a positioning or restraint system cannot be used to reduce the risk, a personal fall arrest system will be utilized to catch a person if a fall occurs.

1) Personal fall arrest system -

- Anchor point (rated at 5000 pounds per person)

- Full body harness
- Restraint line or lanyard
- Retractable lanyard
- Rope grabs
- Connectors (self-locking snaphooks)

5. Administrative Controls

When there are no feasible means to institute an engineering control, and restraint and positioning systems are too dangerous for implementation, the University reserves the right to utilize a trained contractor with the required expertise.

All roof accesses on campus property are under State Statute: **UWS 18.06 conduct on university lands.**

(9) Climbing; walking on roof. No person may climb into, out of or on university buildings or maintenance facilities or walk upon the roof of a university building; except when emergency access to a fire escape is necessary, or for required maintenance, or when authorized by the chief administrative officer.

6. Requirements for Use of Personal Fall Protection Systems

All employees on any project that are required to wear a personal fall arrest or positioning/restraint system will follow these requirements:

- 1) A full body harness will always be used.
- 2) Only self-retractable lanyards are to be used alone or in conjunction with a rope grab system so as to keep impact forces at a minimum on the body.
- 3) Only nylon rope with rope grab or nylon straps with locking snaphooks are to be used for positioning restraints.
- 4) All lanyards will have double action, self-locking snaphooks rated to 5000 pounds.
- 5) Connectors are engineered for specific purposes. Make sure you are using the correct connector in the correct manor. If in question, consult with the Competent Person on staff. (The Senior Administrative Program Specialist in University Safety and Assurances.)
- 6) Fixed Anchor Points are determined and are located on maps at roof access locations. If proper fixed anchor points are in question, contact the Senior Administrative Program Specialist in University Safety and Assurances.
- 7) The employee will inspect all personal fall arrest equipment before each use. Any deteriorated, bent, damaged, impacted, and/or harness showing excessive wear will

be given to a Competent Person who will decide if the equipment needs to be taken out of service. (see section 8 for inspection guidelines)

- 8) The maximum free fall distance is not to exceed 2 feet and shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position. (see section 7)
- 9) The employee will report all instances of falls or other stresses that occur during use to his/her supervisor, so the equipment can be inspected before the next use and/or taken out of service.
- 10) Inclement weather, including but not limited to snow, ice, high winds or rain, pose even greater hazards during work where a potential for a fall exists, i.e. roof work. Personnel shall take additional precautions during such weather. Personnel should contact their supervisor to review additional precautions before beginning affected work. Work should not be conducted on roofs during lightning/ thunder storms or other hazardous weather conditions such as high winds.

Evaluate the total fall distance before utilizing fall protection systems

The following factors can affect total fall distance:

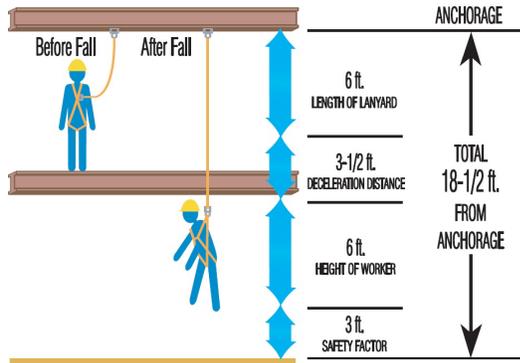
- 1) Length of connecting means (i.e., self-retractable lanyard length, use of carabiners, snaphooks, etc.)
- 2) Position and height of anchorage relative to work platform/area (always keep above the head whenever possible).
- 3) Position of attachment and D-ring slide on the full body harness.
- 4) Deployment of shock absorber (max. 42”).
- 5) Movement in the lifeline.
- 6) Initial position of worker before free fall occurs
- 7) Stretch and tightening of harness during a fall can add 12” or more to the fall distance.

7. Calculating Total Fall Distance

$T. \text{ Fall Distance} = \text{ft (lanyard)} + \text{ft (shock absorber)} + \text{ht of person} + 3 \text{ ft}$
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The total fall distance is the total length of shock absorbing lanyard + deceleration distance + height of the person + 3-foot safety factor above the ground, equipment, etc., at the end of the fall from the fall arrest point.

Determining Proper Anchorage Point Height



8. Inspection of Fall Protection Systems

The following criteria will be utilized to maintain all equipment in good working condition:

Full Body Harnesses

- 1) Inspect before each use.
 - a) Closely examine all the nylon webbing to ensure there are no burn marks, which could weaken the material.
 - b) Verify there are no torn, frayed or broken fibers, pulled stitches, or frayed edges anywhere on the harness.
 - c) Examine the D-ring for excessive wear, pits, deterioration, distortions, or cracks.
 - d) Verify that buckles are not deformed, cracked, and operate correctly.
 - e) Check to see that each grommet (if present) is secure and not deformed from abuse or a fall.
 - f) The harness should never have additional punched holes.
 - g) All rivets should be tight and not deformed.
 - h) Check tongue/straps for excessive wear from repeated buckling.
- 2) A Competent Person will complete an annual inspection of all harnesses and documentation will be maintained.
- 3) Storage will consist of hanging in an enclosed cabinet, to protect from damage.
- 4) All harnesses that are damaged, passed years of service, or involved in a fall will be destroyed without exception by the designated Competent Person.

Lanyards/Shock Absorbing Lanyards

- 1) Inspect before each use.

- a) Check lanyard material for cuts, burns, abrasions, kinks, knots, broken stitches and excessive wear.
 - b) Inspect the snaphooks and/ or carabineers for excessive wear, distortions in the hook, locks, and eye and proper lock operation.
 - (1) Visually inspect the connecting collar of the snaphook for a red band. If a red band is visible, the snaphook has been subject to a fall and needs to be taken out of service.
 - c) Ensure that all locking mechanisms seat and lock properly.
 - d) Once locked, locking mechanism should prevent hook from opening.
 - e) Visually inspect shock absorber for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard. If the shock absorber shows signs of torn stitching or extended webbing, the lanyard may have been subject to a fall and needs to be taken out of service.
 - f) Verify that points where the lanyard attaches to the snaphooks are free of defects.
- 2) A Competent Person will complete an annual inspection of all lanyards and documentation will be maintained.
 - 3) Storage will consist of hanging in an enclosed cabinet, to protect from damage.
 - 4) All lanyards that are damage, passed years of service, or involved in a fall will be destroyed without exception by the designated Competent Person.

Snaphooks

- 1) Inspect before each use.
 - a) Visually inspect the connecting collar of the snaphook for a red band. If a red band is visible, the snaphook had been subject to a fall and needs to be taken out of service.
 - b) Inspect snaphook for any hook and eye distortions.
 - c) Verify there are no cracks or pitted surfaces.
 - d) The keeper latch should not be bent, distorted, or obstructed.
 - e) Verify that the keeper latch seats into the nose without binding.
 - f) Verify that the keeper spring securely closes the keeper latch.
 - g) Test the locking mechanism to verify that the keeper latch locks properly.
- 2) A Competent Person will complete an annual inspection of all snaphooks and documentation will be maintained.
- 3) All snaphooks involved in a fall will be destroyed.

Self-Retracting Lanyards/Lifelines

- 1) Inspect before each use.
 - a) Visually inspect the body to ensure there is no physical damage to the body.
 - b) Visually inspect connecting point for red collar to be visible, if re collar is visible; the lanyard has been subjected to a fall and needs to be taken out of service.
 - c) Make sure all nuts and rivets are tight.
 - d) Make sure the entire length of the nylon strap/wire rope is free from any cuts, burns, abrasions, kinks, knots, broken stitches/strands, excessive wear and retracts freely.
 - e) Test the unit by pulling sharply on the lanyard/lifeline to verify that the locking mechanism is operating correctly.
 - f) If the manufacturer requires, make certain the retractable lanyard is returned to the manufacturer for scheduled annual inspections.
- 2) A Competent Person will conduct inspections annually of all self-retracting lanyards/lifelines and documentation will be maintained
- 3) Service per manufacturer specifications.
- 4) Self-retracting lifelines will be sent to manufacturer after a fall.

Tie-Off Adapters/Anchorages

- 1) Inspect for integrity and attachment to solid surface.
- 2) A Competent Person will complete an annual inspection of all tie-offs and anchorages and documentation will be maintained
- 3) All tie-offs and anchorages will be removed from service after a fall.
- 4) Load Testing Inspection
 - a. *Z359.6-2009 4.6.5 Recertification of Active Fall Protection Systems. Active fall protection systems shall be thoroughly reviewed by an engineer at a frequency to be determined by the original design or other similarly qualified engineer but not to exceed five years. This recertification process shall include a review of the original documents prepared for the system and their continued applicability. As a minimum, the following criteria shall also be considered and the result of the certification shall result in a report or set of documents outlined in Section 3.3.1.*
 - i. *Changes in the hazards and tasks that are addressed by the active fall protection system.*
 - ii. *Changes in regulations, standards or other factors affecting the active fall protection system.*

- iii. *Feedback from a representative sample of the competent persons and authorized persons of the fall protection system.*

Horizontal Lifelines

- 1) Inspect before each use for structural integrity of line and anchors.
- 2) A Competent Person will complete an annual inspection.

Guardrails

- 1) Temporary systems – Daily visual inspection will be completed by a Competent Person.
- 2) Temporary systems – Weekly, a complete structural inspection will be completed by a Competent Person.
- 3) Permanent systems – Annual visual inspections will be completed by a Competent Person with future frequency of inspection defined based on conditions/controls present.

9. Availability of Fall Protection Equipment

A Competent Person or designated person will “issue” the type of fall protection equipment needed by employees to work safely at heights following an assessment jointly conducted with a Competent Person and the employing department. The hiring department will be responsible for the cost of the required fall protection equipment for their employees or equipment may be checked out from Facilities Services.

Each department that has been issued fall protection equipment will designate a responsible person or persons who will issue, inspect, and check in/out the fall protection equipment according to the guidelines in this section. Annual inspections will be conducted by a Competent Person.

Facilities Services - Department Specific Process

- 1) Fall protection equipment will be stored at Mitchell Hall, the Music Building or in the Heat Plant and will be checked out by authorized personnel only.
- 2) Any use of fall protection equipment required beyond a full body harness and a self-retractable lanyard secured to an aerial lift will be determined by a Competent

Person based on work that needs to be done, location and degree of fall hazard.
Please contact the Senior Administrative Program Specialist in University Safety and Assurances

- a. The Competent Person will determine if a call should be made to the responding Fire Department for the location where work is occurring to alert them of a potential fall. This could be Milwaukee Fire Department for the majority of Kenwood campus and off-campus locations in the city of Milwaukee; or if at University Services and Research Building the North Shore Fire Department; or if at Innovation Campus Accelerator Building the Wauwatosa Fire Department.
- 3) All access to campus roofs, cooling towers or other potential fall hazard locations for repairs within 15 feet of the roof edge requires a full body harness and either a Positioning / Restraint System or Fall Arrest Protection System.
 - a. Every roof access point on campus will have a warning sign and posting requiring fall protection equipment and a description of where anchorage points are on that roof and what equipment is needed to work safely.
- 4) All equipment must be checked back in, so it can be inspected and properly stored to retain its intended condition
- 5) Wet equipment must be air dried before storing.
- 6) Never attempt to clean or repair fall protection equipment as some cleaners may deteriorate the webbing and what appears to be a minor repair may deem the equipment unusable. Destroy and replacement equipment.

Heat Plant - Department Specific Process

- 1) Fall protection equipment will be maintained at the Heat Plant to provide fall protection safety and positioning devices for required activities that involve various levels of fall hazard at that location.
- 2) Fall protection/ positioning equipment must be properly stored in a secure location to follow the guidelines listed in this document to be checked out by Power Plant Operator in Charge to ensure proper use and inspection of equipment and to maintain awareness for potential fall and rescue situations.
- 3) All equipment must be checked back in, so it can be inspected and properly stored to retain its intended condition

Other Departments

- 1) Fall protection equipment will be issued to other departments on campus to include: University Information Technology Services, Peck School of the Arts and the University of Wisconsin-Milwaukee Police Department to provide fall protection

safety and positioning devices for required activities that involve various levels of fall hazard.

- 2) Each department that has been issued fall protection equipment will designate a responsible person who will issue, inspect, and check in/out the fall protection equipment according to the guidelines in this document.
- 3) The department responsible party will identify locations and activities that require fall protection and bring them to the attention of a competent person. The Competent Person will help the department establish fall protection procedures for each situation.
- 4) The responsible party will ensure that all employees who use fall protection equipment have completed the required fall protection training.
- 5) All equipment must be checked back in, so it can be inspected and properly stored to retain its intended condition
- 6) Never attempt to clean or repair fall protection equipment.

10. Storage and Maintenance of Fall Protection Equipment

- 1) Never leave the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (i.e., sun, rain, snow, etc.). All equipment should be checked back in to the designated storage area for proper storage.
- 2) Store equipment by hanging equipment by fastening hardware in a cool, dry location in a manner that retains its shape.
- 3) Always follow manufacturer recommendations and above listed guidelines for inspections.
- 4) Never force dry or use strong detergents in cleaning.
- 5) Never return wet equipment to storage. Always air-dry equipment before storing.
- 6) Never store equipment near excessive heat, chemicals, moisture, or sunlight.
- 7) Never store in an area with exposures to fumes or corrosive elements.
- 8) Avoid dirt or other types of build-up on equipment.
- 9) Never use this equipment for any purpose other than personal fall arrest and/ or positioning.
- 10) Once exposed to a fall, remove equipment from service immediately and contact the Competent Person advising them of the fall.

11. Training

UW Milwaukee will provide fall prevention training program for each employee whose

duties require them to work at heights where a fall hazard of 4 feet or more exists. The training program will include recognition of the fall hazards and procedures to follow to minimize these hazards. Training will be provided by a qualified Competent Person on the following:

- 1) Recognize the fall hazards of/on their job sites.
- 2) Understand the hazards associated with working near fall hazards.
- 3) Work safely in hazardous areas by properly implementing and utilizing appropriate fall protection measures.
- 4) Understand and follow all components of this fall protection program.
- 5) Identify and understand the enforceable Department of Safety and Professional Services/OSHA standards and ANSI standards that pertain to fall protection.

UW Milwaukee will maintain documentation for employee training. The training record will contain the following information:

- 1) The name or other identity of the employee trained
- 2) The date(s) of the training; and the signature of the person who conducted the training or the signature of the employer.
- 3) Retraining will be provided when the employee supervisor or competent person has reason to believe that the employee does not demonstrate the understanding and skill for recognizing fall protection hazards, appropriate fall protection measures to be used, or exhibits a disregard for his/her own fall protection safety or that of others. Retraining will also be offered when there have been significant changes in workplace conditions or types of fall protection systems that make the previous training obsolete.

12. Enforcement

- 1) All staff, faculty and students are subject to discipline for not following all the components of this fall protection program.
- 2) Documentation of any violations will be kept in the staff member's personnel file.

13. Rescue Procedures

Employees utilizing scissor lifts, single manlifts, articulated lifts or other mobile elevated work platforms with self-rescue features must review the self-rescue procedures of the equipment prior to using.

The employees must have a means of communicating problems or emergencies to others

(such as radio, cell phone, observer stationed nearby.

In the event of a fall, the following people will be called immediately in order of importance:

- 1) Call the UWM Police Department at 229-9911 to request assistance. The Police will contact the Milwaukee Fire Department who will assist with fall rescues at the Kenwood Campus and off-campus locations within the city of Milwaukee. At the University Services and Research Building call the North Shore Fire Department at 911. At the Innovation Campus Accelerator Building call the Wauwatosa Fire Department at 911.
- 2) Competent Person, Senior Administrative Program Specialist in University Safety and Assurances at 229-6339.
- 3) Manager/Supervisor of employee.

If a fall occurs, the person that makes the call to 911 must be responsible for getting the rescue team to the fall victim.

At the beginning of any work activity where fall protection equipment is to be used, rescue plans must be identified and discussed with all employees in case of a fall. The Competent Person will determine if the designated fire department should be put on alert depending on the potential severity of the fall.

A fall can result in extreme trauma on the fall victim's body, even when the correct fall arrest equipment is used. Unconsciousness is likely with 10-20 minutes after the fall and death is likely to follow if not rescued in time. The prompt and correct use of trauma straps extends the required rescue time from 20 minutes to as much as two hours by restoring vital blood flow from the victim's legs back to their heart.

All harnesses have been equipped with trauma straps located on both right and left hips. The fall victim should unzip and release the straps and hook the hook through the loop residing closest to the lower half of their shin. The fall victim should then step with both feet into the connected straps and extend their legs to a fully standing position.

All employees involved in a fall arrest or fall will be sent immediately for a medical evaluation to determine the extent of injuries, if any.

Please refer to Rescue Plans for specific locations.

14. Fall Investigation

All fall investigations will be conducted by the Senior Administrative Program Specialist in University Safety and Assurances. The following documentation will be completed as part of the fall investigation:

- 1) Interviews with staff and witnesses.
- 2) Employee's Work Injury and Illness Report.
- 3) Supervisor's Accident Analysis and Prevention Report and Evaluation of Repetitive Motion and/or Materials Handling Activities.
- 4) Employer's First Report of Injury or Disease.

All questions or concerns regarding this Fall Protection Program should be directed to the Competent Person for fall protection and positioning systems. That is the Senior Administrative Program Specialist in University Safety and Assurances.