

## **Fall Protection Program**

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## **Glossary of Terms**

**Aerial lift device:** Equipment such as powered platforms, vehicle mounted, elevated and rotating platforms, extensible boom platforms, aerial ladders, articulating boom platforms, vertical towers and powerful industrial truck platforms.

Anchor point: A secure point of attachment for lifelines, lanyards or deceleration (grabbing) devices.

Anchorage: A secured structure that can safely withstand forces exerted by fall protection or rescue equipment.

**Authorized person:** A person approved or assigned by the employer to perform specific tasks or duties (building maintenance, roof repair, etc.)

**Body belt:** A strap with means to secure it around the waist and attach to a lanyard, lifeline or deceleration (grabbing) device. **Body belts are prohibited for use at UCSD.** 

**Body harness (full body harness):** An interconnected set of straps that may be secured about a person in a manner that distributes the fall arrest forces over the thighs, pelvis, waist, chest and shoulders with a means for attaching the harness to other components of a personal fall arrest system, preferably at the shoulders and/or middle of the back.

Connector: A device that is used to connect parts of a personal fall arrest system together (e.g., D-rings, snap hooks)

**Competent person:** A person who is capable of recognizing existing and predictable hazards and has the authority to take corrective action; A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system, as well as in their application and use with related equipment. (To be considered a Competent person, a training class for general fall protection and for scaffolds must be completed. To be considered a Competent person for equipment inspections, the manufacturer's training guidelines and instructions should be followed.)

**Deceleration device:** Any mechanism, such as rope, a grabbing device, rip stitch lanyard, specially woven lanyard or automatic self-retracting lifeline/lanyard, which serves to dissipate a substantial amount of energy during a fall arrest or otherwise limits the energy imposed on an employee during fall arrest.

**Deceleration distance:** The additional vertical distance a falling person travels before stopping (excluding lifeline elongation and free fall distance), from the point at which a deceleration device begins to operate.

**Designated area:** A space that has a perimeter barrier erected to warn employees when they approach an unprotected side or edge, and serves to designate an area where work may be performed without additional fall protection.

**Fixed ladder:** A ladder, including individual rung ladders, that is permanently attached to a structure, building or equipment; It does not include ships stairs or manhole steps.

Free fall: The act of falling before a personal 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.

**Guard rail & Guard rail system:** A barrier erected to prevent employees from falling to lower levels. This type of system includes a toprail, mid rail and toe board. All rails and supports must be able to withstand 200 pounds applied in any direction.

Hole: A void or gap 2 inches or more in its least dimension in a floor, roof or other walking/working surface.

Horizontal lifeline: A flexible line between two horizontal fixed anchorages to which a fall arrest device is connected

**Infeasible:** Impossible to perform the construction work using a conventional fall protection system (e.g., guard rail system, safety net system or personal fall arrest system) or is technologically impossible to use any one of these systems to provide fall protection.

**Ladder:** A device typically used to gain access to a different elevation consisting of two or more structural members crossed by rungs, steps or cleats.

**Lanyard:** A flexible line of rope or strap that generally has a connector at each end for connecting the body hardness to a deceleration device, lifeline or anchor point.

**Leading edge:** The edge of a floor, roof or other walking/working surface, which changes location as additional floors, roofs, etc. are placed or constructed.

**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), and serves as a means for connecting other components of a personal fall arrest system to the anchorage.

**Lower levels:** Areas or surfaces to which an employee can fall. Such areas include but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pit tanks, material, water, equipment or structures.

**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° slope or less.

**Mechanical equipment:** All motor or human propelled wheeled equipment used for roofing work (does not include wheelbarrows or mop carts).

Opening: A gap or void of 30 inches high or more and 18 inches or wider in a wall partition, where employees could fall to a lower level.

**Positioning device system:** A body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

**Personal fall arrest system:** A system used to arrest (catch) an employee in a fall from a working level. It consists of an anchorage, connectors, body harness and may include a lanyard, deceleration device, lifeline or a suitable combination of these items.

**Qualified climber:** A person who by virtue of physical capabilities, training, work experience and job assignment, is authorized by the employer to routinely climb fixed ladders and step bolts on structures, such as towers and poles, which do not have ladder protection devices such as cages and rest platforms.

**Qualified person:** One with a recognized degree or professional certificate and extensive knowledge and experience in the subject field, who is capable of design, analysis, evaluation and specifications in the subject work, project or product.

**Restraint line:** A device which is attached between the employee and an anchorage to prevent the employee from walking or falling offan elevated surface.

**Roof:** The exterior surface on the top of a building.

**Roofing work:** Hoisting, storage, application and removal of roofing materials and equipment, including insulation, sheet metal, and vapor barrier work; does not include the construction of the roof deck.

**Rope grab (grabbing device):** A deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest a fall.

**Safety monitoring system:** A system in which a competent person is responsible for recognizing and warning employees of fall hazards. All other fall protection systems must be deemed "infeasible" (through infeasibility study/review) to select and use a safety monitoring system.

**Scaffold:** Any temporary elevated or suspended platform, at its supporting structures, used for supporting employees, materials or both.

**Self-retracting lifeline/lanyard:** A deceleration device containing a drum-wound line which can be slowly extracted from or retracted onto, the drum under minimal tension during normal movement and which, after onset of a fall, automatically locks and arrests the fall

(usually within 2 feet or less).

**Standard railing:** A vertical barrier erected along exposed edges of a floor opening, wall opening, ramp, platform or runway to prevent an employee from falling.

Steep roof: A roof having a slope greater than 4 in 12 (vertical to horizontal). A steep roof has a slope greater than 19.5°.

**Snap hook:** A connector consisting of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and when released, automatically closes to retain the object. Snap hooks must be self-closing with a self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection. This prevents the opportunity for the object to rollout of the snap hook. **Only locking snap hooks are permitted for use at UCSD.** 

**Toeboard:** A low protective barrier usually 4 inches or greater in height that prevents material and equipment from falling to lower levels.

**Total fall distance:** The maximum vertical change in distance from the bottom of an employee's feet at the onset of a fall to the position of the feet after the fall is arrested, including free fall distance and deceleration distance.

**Tie-off:** A procedure of connecting directly or indirectly to an anchorage point.

**Unprotected sides and edges:** Any side or edge (at least 39 inches high) except at entrances to points of access, of an elevated walking/working surface (e.g., floor, roof, ramp or runway) where there is no wall or guard rail system.

**Vertical lifeline:** A component consisting of a flexible line for connection to an anchor point to hang vertically at one end and serves as a means for connecting other components of a personal fall arrest system to the anchor point. **Note: When vertical lifelines are used, each employee must be attached to a separate lifeline.** 

**Walking/working surfaces:** Any surface, whether horizontal or vertical, on which an employee walks or works, including but not limited to, floors, roofs, ramps, bridges, runways, form work and concrete reinforcing steel. Ladders, vehicles or trailers, on which employees must be located in order to perform their job duties are **not** included.

**Warning line system:** A barrier erected on a roof to warn employees they are approaching an unprotected roof side or edge; a barrier that designates an area where work can be conducted without the use of guard rails, personal fall arrest systems or safety nets to protect employees in the area. Systems are utilized on roofs greater than 50 inches wide and in conjunction with a safety monitor only where other forms of fall protection have been deemed infeasible to use.

Work area: The portion of a walking/working surface where job duties are being performed.