

WAC 296-304-09021 Personal fall arrest systems (PFAS). Personal fall arrest systems must meet the requirements of this section.

(1) You must ensure that connectors and anchorages meet the following criteria:

(a) Connectors are made of drop forged, pressed, or formed steel or of materials with equivalent strength.

(b) Connectors have a corrosion-resistant finish, and all surfaces and edges are smooth to prevent damage to the interfacing parts of the system.

(c) D-rings and snaphooks can sustain a minimum tensile load of 5,000 pounds (22.24 Kn).

(d) D-rings and snaphooks are proof-tested to a minimum tensile load of 3,600 pounds (16 Kn) without cracking, breaking, or being permanently deformed.

(e) Snaphooks lock and are designed and used to prevent disengagement of the snaphook by contact of the snaphook keeper with the connected part.

(f) On suspended scaffolds or similar work platforms with horizontal lifelines that may become vertical lifelines, the devices used for connection to the horizontal lifeline can lock in any direction on the lifeline.

(g) Anchorages used for attachment of personal fall arrest equipment are independent of any anchorage used to support or suspend platforms.

(h) Anchorages can support at least 5,000 pounds (22.24 Kn) per employee attached, or are designed, installed, and used as follows:

(i) As part of a complete personal fall arrest system that maintains a safety factor of at least two; and

(ii) Under the direction and supervision of a qualified person.

(2) You must ensure that lifelines, lanyards, and personal fall arrest systems meet the following criteria:

(a) When vertical lifelines are used, each employee has a separate lifeline.

(b) Vertical lifelines and lanyards have a minimum tensile strength of 5,000 pounds (22.24 Kn).

(c) Self-retracting lifelines and lanyards that automatically limit free fall distances to 2 feet (0.61 m) or less can sustain a minimum tensile load of 3000 pounds (13.34 Kn) applied to a self-retracting lifeline or lanyard with the lifeline or lanyard in the fully extended position.

(d) Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet (0.61 m) or less, ripstitch lanyards and tearing and deforming lanyards can sustain a minimum static tensile load of 5,000 pounds (22.24 Kn) applied to the device when they are in the fully extended position.

(e) Horizontal lifelines are designed, installed, and used under the supervision of a qualified person, and only used as part of a complete personal fall arrest system that maintains a safety factor of at least two.

Note: The system strength needs below are based on a maximum combined weight of employee and tools of 310 pounds. If combined weight is more than 310 pounds (140.62 kg), appropriate allowances must be made or the system will not be in compliance.

(f) Effective April 20, 1998, you must ensure that personal fall arrest systems:

(i) Limit the maximum arresting force on a falling employee to 1,800 pounds (8 Kn) when used with a body harness;

(ii) Bring a falling employee to a complete stop and limit the maximum deceleration distance an employee travels to 3.5 feet (1.07 m); and

(iii) Are strong enough to withstand twice the potential impact energy of an employee free falling a distance of 6 feet (1.8 m), or the free fall distance permitted by the system, whichever is less.

(g) You must ensure that personal fall arrest systems are rigged so that an employee can neither free fall more than 6 feet (1.83 m) nor contact any lower level.

(3) You must select, use, and care for systems and system components according to the following requirements:

(a) Lanyards are attached to employees using personal fall arrest systems, as follows:

The attachment point of a body harness is in the center of the wearer's back near the shoulder level, or above the wearer's head. If the maximum free fall distance is less than 20 inches, the attachment point may be located in the chest position.

(b) Ropes and straps (webbing) used in lanyards, lifelines and strength components of body harnesses are made from synthetic fibers or wire rope.

(c) Ropes, harnesses, and lanyards are compatible with their hardware.

(d) Lifelines and lanyards are protected against cuts, abrasions, burns from hot work operations and deterioration by acids, solvents, and other chemicals.

(e) Personal fall arrest systems are inspected before each use for mildew, wear, damage, and other deterioration. Defective components are removed from service.

(f) Personal fall arrest systems and components subjected to impact loading are immediately removed from service and not used again for employee protection until inspected and determined by a qualified persons to be undamaged and suitable for reuse.

(g) You must provide for prompt rescue of employees in the event of a fall or must ensure that employees are able to rescue themselves.

(h) Personal fall arrest systems and components are used only for employee fall protection and not to hoist materials.

(4) Training. Before using personal fall arrest equipment, you must ensure that each affected employee is trained to understand the application limits of the equipment and proper hook-up, anchoring, and tie-off techniques. Affected employees must also be trained to demonstrate the proper use, inspection, and storage of their equipment.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-18-075, § 296-304-09021, filed 9/5/17, effective 10/6/17; WSR 03-04-099, § 296-304-09021, filed 2/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. WSR 98-02-006, § 296-304-09021, filed 12/26/97, effective 3/1/98.]