

## 12.2: Personal Fall Arrest Systems

### Personal Fall Arrest Systems

#### Definition

A system which consists of an anchorage connectors, body belt, or body harness, and may include a lanyard deceleration device, lifeline, or combination of the above, used by an employee to arrest falls.

#### Requirements

Where personal fall arrest systems are used to meet the requirement of fall protection the personal fall arrest system shall comply with all of the following provisions:

1. Effective January, 1998, body belts are not permitted as part of a personal fall arrest system. Body belts will be permitted for the purpose of a positioning device only.
2. Personal fall arrest systems must be inspected prior to each use for damage and wear. Defective components must be replaced.
3. D-rings and snaphooks must have a minimum tensile strength of 5,000lbs.
4. Effective January, 1998, only locking type snaphooks shall be used. Snaphooks must be compatible with the member to which they are connected unless they are of the locking type.
5. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000lbs. Ropes and straps or webbing used in lanyards shall be made of synthetic fibers.
6. Anchorages used for personal fall arrest systems shall be independent of those used to support platforms. Anchorage points shall be capable of supporting at least 5,000lbs.
7. The attachment point of the body belt must be located in the center of the wearer's back. The attachment point for a body harness shall be located in the center of the wearer's back near shoulder level or above the wearer's head.
8. Body belts, harnesses and other components of a personal fall arrest system shall not be used to hoist materials.
9. Personal fall arrest systems shall not be attached to guardrail systems.

### Positioning Device System

#### Definition

A system which utilize a body belt or body harness rigged in a manner which permits the employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free.

#### Requirements

If positioning device systems are used they shall comply with all of the following provisions:

1. The total length of a worker's free fall cannot exceed two feet.
2. Position device anchorage points must be capable of supporting twice the potential impact load of an employee's fall or 3,000lbs, whichever is greater.
3. All of the components for positioning device systems, such as, snaphooks, D-rings, etc., must meet the same criteria as those for personal fall arrest systems.
4. Positioning device systems must be inspected prior to each use for wear, damage or other deterioration.

### Warning Line System

#### Definition

A form of barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge and which designates an area in which roofing work may take place without the use of guardrails, safety nets, or fall arrest systems.

#### Requirements

If warning line systems are used, they shall comply with all of the following provisions:

1. The warning line system must be erected around all sides of the roof work area.
2. The warning lines shall be erected at least six feet from the roof edge when no mechanical equipment is being used. If mechanical equipment is being used, the warning lines must be erected at least six feet from the parallel roof edge and 10' from

the perpendicular roof edge to the direction in which the mechanical equipment operates.

3. Warning lines shall consist of ropes, wires or chains. The lines shall be installed so that its lowest point is at least 34" from the working surface and no greater than 39" from the working surface.
4. Warning lines shall be flagged at intervals not exceeding six feet with a high- visibility material.
5. Warning lines shall be supported by stanchions and attached in such a manner so that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

## Safety Monitoring Systems

### Definition

A Safety Monitoring System is a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

### Requirements

If safety monitoring systems are used they shall comply with all of the following provisions:

1. If no other fall protection system has been implemented, the employer must use a safety monitoring system. The employer shall appoint a competent person to monitor the safety of the workers.
2. The competent person must have knowledge in fall hazard recognition, and must be capable of warning workers of fall hazard dangers and in detecting unsafe work practices.
3. The competent person must operate from the same working surface on which the employees work so he/she can be seen.
4. The competent person has to be close enough to the workers that he/she can communicate orally with the workers. The competent person can have no other duties which distract from the monitoring function.
5. Mechanical equipment shall not be used or stored in areas where safety monitor systems are being used to monitor employees engaged in roofing operations.

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