



WEEKLY TOOLBOX TALKS

PERSONAL FALL ARREST SYSTEMS (PFAS)

Many workers die each year from falls. OSHA has designated May 2017 as a national safety stand down for Fall Protection. Falls and falling objects can result from unstable working surfaces, ladders that are not safely positioned, and misuse of fall protection equipment. Employees are also subject to falls or to the dangers of falling objects when working near leading edges, unprotected sides, floor holes, and wall openings. Fall protection also applies to slips, trips, and falls on the same elevation. When elevated work is to be performed, a complete analysis of the scope of work, environmental conditions, and fall hazards **SHALL** be conducted by supervision. All affected personnel **SHALL** be briefed and instructed as to requirements, protective system selection, and work procedures. Any time an employee performs elevated work at a height of four (4) feet or more, or needs to get closer than six (6) feet to an unprotected edge, the employee **MUST** be properly secured from falling.

- ✚ A personal fall arrest system (PFAS) is effective only if you know how all of the components work together to stop or arrest a fall.
- ✚ A personal fall arrest system (PFAS) includes the following components that work together to stop a fall or to minimize the arrest force:
 - **Anchorage Points:** Are secure points of attachments for lifelines, lanyards, or deceleration devices, such as structural I-beams and large diameter piping.
 - **Full Body Harness:** A full body harness distributes the force of a fall over the thighs, pelvis, waist, chest, and shoulders.
 - **Deceleration Devices:** These devices help protect employees from the impact of a fall and include shock-absorbing lanyards, self-retracting lifelines (SRLs), and rope grabs.
 - **Connectors:** Carabiners, locking snap-hooks and D-rings.
- ✚ Personal fall arrest systems **SHALL** have sufficient strength to withstand twice the potential impact energy of the falling employee.
- ✚ Personal fall arrest systems **SHALL** limit the maximum arresting forces to 1800 pounds with a full body harness.
- ✚ All systems will be installed so that an employee cannot free fall more than 6 feet, nor contact any lower level.
- ✚ Winger policy is that all employees wear and use fall protection when working at elevations of 4 feet or above.
- ✚ A qualified person **SHALL** determine all anchor points, both temporary and permanent. Permanent anchor points **SHALL** be properly marked.
- ✚ Anchorage points for personal fall arrest systems **MUST** be capable of supporting 5000 pounds per employee attached and be independent of the surface that the employee is working on. If you are using retractable life-lines, that amount decreases to 1800 pounds per employee.
- ✚ Personal fall arrest systems **SHALL NOT** be attached to guardrail systems.
- ✚ Swing hazards from a fall need to be considered when selecting anchor points.
- ✚ Follow manufacturers' instructions for wearing harnesses.
- ✚ Inspect harnesses, lanyards, and lifelines before you use them. Maintain them carefully. The storage area should be clean, dry, and free of fumes or corrosives.
- ✚ A shock absorbing lanyard reduces the impact on a worker during fall arrest by extending up to 3.5 feet to absorb the arrest force. Because of this, it is **CRITICAL** that the lanyard stops the worker from striking the next lower level. **ALWAYS calculate the total distance of a possible fall before performing elevated work.**
- ✚ Miller Turbo T-Bak or the DBI/Sala Nano-Lok self-retracting lifelines will replace the 6' double legged lanyard for working elevations 4' - 18 1/2'. These have two 7 1/2' retractable lanyards that give the wearer more mobility and security while working.
- ✚ Self-retracting lifelines (SRLs) are devices that are typically connected to a cross-arm strap or beam clamp that is attached to an I-beam, large diameter piping, or other structural anchorage points.
- ✚ Self-retracting lifelines (SRLs) are designed to arrest a fall within 2 feet.
- ✚ Self-retracting lifelines (SRLs) **MUST** be used by the wearer at less than a 15-degree angle from the device to minimize swing distance in case of a fall.
- ✚ Horizontal and vertical lifelines **SHALL** be designed, installed, and used under the supervision of a qualified person as part of a complete personal fall arrest system.
- ✚ Lifelines **SHALL** be protected against cutting and abrasions.
- ✚ Taglines should be used between use on installed retractable lifelines to protect the cable or webbing from damage.
- ✚ A vertical lifeline consists of a flexible line connected to an overhead anchorage point. It **MUST** be connected directly to a worker's full body harness, lanyard, or rope grab device, and be capable of supporting 5000 pounds.
- ✚ Each employee **SHALL** be attached to a separate lifeline when vertical lifelines are used.
- ✚ Unlike a vertical lifeline, the horizontal lifeline stretches between two anchor points. More than one person may be attached to a horizontal lifeline at time. The horizontal lifeline **MUST** be designed for, and capable of supporting 5000 pounds per employee attached.
- ✚ All connectors such as carabiners, locking snap-hooks, and D-rings **MUST** have a tensile strength of 5000 pounds.
- ✚ Two locking snap-hooks cannot be attached to a harness D-ring at the same time, i.e. D-ring extender attached at the same time to the harness D-ring as a lanyard. Injuries have resulted from snap-hooks failing by interfering with each other during a fall.
- ✚ DO NOT use rigging equipment for fall protection purposes.
- ✚ **Any personal fall arrest system or component that has been used to arrest a fall (impact loading), SHALL be immediately removed from service until it is inspected and determined by a competent person to be undamaged.**

There are 3 reasons why people fall and get injured when working while elevated:

- ✚ Lack of training
- ✚ Employees not inspecting their equipment
- ✚ Improper use of equipment



Meeting Date: _____
Supervisor: _____

Trainer: _____
Location: _____

Attendees: (Please print clearly)



WEEKLY TOOLBOX TALKS

PERSONAL FALL ARREST SYSTEMS (PFAS) QUIZ

1. Falls are one of the leading causes of death for construction workers. True or False? _____
2. OSHA is sponsoring a Fall Protection Safety Stand Down during the month of May 2017. True or False? _____
3. Falls can happen from the following:
 - unstable working surfaces,
 - ladders that are not safely positioned
 - misuse of fall protection equipment
 - working near leading edges, unprotected sides, floor holes, skylights, and wall openings
 - slips, trips, and falls on the same elevation.

True or False? _____
4. Winger policy is when working 4 feet or above or within 6' of a handrail, workers must be wearing their fall protection...No exceptions! True or False? _____
5. All systems must be installed so that an employee cannot fall and contact any lower level. True or False? _____
6. You can attach your personal fall arrest system to a guardrail. No one will notice. True or False? _____
7. Swing hazards from a fall do not need to be considered when selecting anchor points. True or False? _____
8. Self-retracting lifelines (SRLs) are designed to arrest a fall within 2 feet. _____
9. Lifelines do NOT have to be protected against cutting and abrasion. True or False? _____
10. You don't have to inspect your harness and double retractable before each use. True or False? _____
11. Taglines should be used between uses on installed retractable lifelines to protect the cable/webbing from damage. True or False? _____
12. Self-retracting lifelines (SRLs) MUST be used by the wearer at less than a 15 degree angle from the device to minimize swing distance in case of a fall. True or False? _____
13. It is ok to use rigging equipment for fall protection purposes. True or False? _____
14. More than one employee can be attached to the same vertical lifelines. True or False? _____
15. Any personal fall arrest system or component that has been used to arrest a fall (impact loading), SHALL be immediately removed from service until it is inspected and determined by a competent person to be undamaged. True or False? _____
16. Two locking snaphooks cannot be attached to the harness D-ring at the same time. True or False? _____



Printed Name: _____ **Trained by:** _____

Signature: _____ **Trained by Signature:** _____

Date: _____ **Location:** _____