



COMPANY HEALTH & SAFETY PROGRAM

Issue: A
Date: 4/20/2009
Rev 3
Date: 11/14/2017
Authorized: *MJM*

Title: Fall Protection

Section No: 14

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1.0 **PURPOSE**

The purpose of this section is to provide fall protection criteria that will safeguard the health and safety of employees and be in compliance with regulatory standards.

2.0 **SCOPE**

This section contains procedures designed to ensure fall protection training and safe work practices are communicated to, and understood by, all affected employees.

3.0 **INDEX TO SECTION**

- 1.0 Purpose
- 2.0 Scope
- 3.0 Index to Section
- 4.0 Overview
- 5.0 General Fall Protection Requirements
- 6.0 Personal Fall Arrest Systems
- 7.0 Covers
- 8.0 Training
- 9.0 Accident and Incident Investigation
- 10.0 Fall Protection
- 11.0 Safety Monitoring System

4.0 **OVERVIEW**

General requirements for fall protection on job-sites where PPP employees typically may work are presented in this section. Special fall protection requirements shall be implemented and communicated to employees using job safety analysis procedures.

When PPP is responsible for providing fall protection systems, other than manufactured personal fall arrest equipment, the construction or erection of such systems shall be subcontracted to a company licensed to do such work with appropriately trained and qualified people.

The requirements set forth in this section are intended to be in compliance with CFR 29, Part 1926.500 thru 1926.503. These standards should be referred to for situations not covered in this section.



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Fall protection requirements relating to stairways & ladders and scaffolding differ and are outlined in other sections of this program.

5.0 GENERAL FALL PROTECTION REQUIREMENTS

Employees shall be allowed to work on walking/working surfaces only when it has been determined that such surfaces have the strength and structural integrity to support employees safely.

Fall protection rules that PPP employees may be affected by include:

1. Employees on a walking/working surface (horizontal and vertical) with an **unprotected side or edge**, including a leading edge, which is 4 feet or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems.
2. Employees in a **hoist area** shall be protected from falling 4 feet or more to lower levels by guardrail systems or personal fall arrest systems. If guardrail systems, or portions thereof, are removed to facilitate the hoisting operation and an employee must lean through, or out over the edge of, the access opening (to receive or guide equipment and materials, for example) that employee shall be protected from fall hazards by a personal fall arrest system.
3. Employees on walking/working surfaces shall be protected from falling through **holes** 4 feet or more above lower levels by personal fall arrest systems, covers or guardrail systems erected around such holes.
4. Employees on **ramps, runways and other walkways** shall be protected from falling 4 feet or more to lower levels by guardrail systems.
5. Employees at the edge of an **excavation** 6 feet or more in depth shall be protected from falling by guardrail systems, fences or barricades. Covers can be used on some excavations such as a well, pit or shaft.
6. Employees less than 4 feet above **dangerous equipment** shall be protected from fall into or onto the dangerous equipment by guardrail systems or equipment guards.



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7. Employees 4 feet or more above ***dangerous equipment*** shall be protected from fall hazards by guardrail systems, personal fall arrest systems or safety net systems.
8. Employees working on, at, above or near ***wall openings*** (including those with chutes attached) where the outside bottom edge of the wall opening is 4 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface, shall be protected from falling by the use of a guardrail system, safety net system or personal fall arrest system.
9. When an employee may be exposed to ***falling objects***, one of the following measures shall be implemented in addition to hard hat use:
 - a. Erect toe boards, screens or guardrail systems to prevent objects from falling from higher levels.
 - b. Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced.
 - c. Barricade the area to which objects could fall, prohibit employees from entering the barricaded area and keep objects that may fall far enough away from the edge of a higher level so those objects would not go over the edge if they were accidentally displaced.
10. Using PPP's JHA program and pre-task forms, provisions for prompt rescue of employees or means of self rescue shall be in place for the occurrence of a fall.
11. All fall protection and equipment required by this section shall conform to the provisions of CFR 29, 1926.502 and meet all applicable ANSI & ASTM requirements.

6.0 PERSONAL FALL ARREST SYSTEMS

PPP employees shall use only manufactured personal fall arrest equipment that meets or exceeds government criteria.

Inspection and Storage



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1. Storage

Fall protection equipment must be stored in a clean and dry location away from exposure to abrasive or cutting tools, equipment or materials, excessive heat and chemicals.

2. Inspection

- a. Personal fall arrest equipment must be visually inspected by the employee before each use.
- b. Inspections shall consist of an evaluation of the following areas:

<u>Harnesses</u>	<u>Lanyards and Lifelines</u>
Stitching	Frayed/Broken Strands
Rivets	Burns
Buckle Tabs	Tears
D-Rings	Snap Hooks
Rust and Abrasion	Connectors
Burns, Cuts, Tears	Corrosion
- c. Damaged or defective equipment must be removed from service, destroyed and replaced.
- d. Documented inspections by a designated Competent Person shall be performed periodically as per manufacturers' recommendations or every six months, whichever comes first.

Other pertinent requirements regarding personal fall arrest systems that PPP employees typically use include:

- 1 PFAS'S include, but are not limited to anchorage points, harnesses, lanyards, rope grab systems, deceleration devices, connecting devices, self-retracting lanyards (SRLs) and buckles.
- 2 A lanyard shall not be connected back onto itself unless it is of the type designed for that usage.
- 3 Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or



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suspend platforms and capable of supporting at least 5,000 pounds per employee attached.

- 4 Personal fall arrest systems shall be rigged such that an employee can neither free fall more than 6 feet nor contact any lower level.
- 5 If a personal fall arrest system is used by an employee having a combined tool and body weight of 310 pounds or more, then the criteria and protocols must be appropriately modified to provide proper protection for such heavier weights or the system will not be in compliance with the requirements of this section.
- 6 The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
- 7 Harnesses and components shall be used only for employee protection and not to hoist materials.
- 8 Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and destroyed, or recertified by the manufacturer.
- 9 Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists except as specified in other sections.
- 10 When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.
- 11 Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less 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. Those that do not limit free fall to two feet or less shall be capable of sustaining a minimum tensile load of 5,000 pounds applied to it in the fully extended position.



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7.0 COVERS

Covers for holes in floors, roofs and other walking/working surfaces shall meet the following requirements:

1. Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.
2. All other covers shall be capable of supporting without failure, at least twice the weight of employees, equipment and materials that may be imposed on the cover at any one time.


8.0 TRAINING

At least annually, the main topic of the PPP Weekly Site Employee Safety Meeting shall be "Fall Protection". When this occurs, the PPP safety director shall advise all project supervisors and/or project safety coordinators to include a review of this section as part of the meeting. Also, the proper inspection, wearing and care of personal fall arrest equipment shall be demonstrated.

Fall protection training shall also be accomplished by following procedures outlined in related job safety analyses.

Training in the following areas shall be done by a competent person qualified in the areas:

1. Nature of fall hazards,
2. Correct Procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
3. The use of operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
4. The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
5. The handling and storage of equipment and materials and the erecting of overhead protection;
6. The role of employees in fall protection plans; and

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7. The standards contained in this subpart.

The PPP safety director shall oversee events where fall protection training takes place to ensure that the requirements of CFR 29, 1926.503 are complied with.

PPP Form S.TAR.1, Safety Training Program Attendance Record, shall be used as documentation of fall protection safety training. Attendance records shall be sent to the safety director and copies maintained at the jobsite for the duration of the project. The safety director shall maintain the most recent training certification of an employee.

Re-training shall be provided when the following are noted: 1) Deficiencies in training. 2) Work place changes. 3) Fall protection systems or equipment changes that render previous training obsolete.

9.0 **Accident and Incident Investigation**

All accidents and serious incidents (near accidents) involving provisions in this section must be investigated, and necessary changes shall be implemented to prevent further incidents. (Section 03 Accident, Incident and Near Miss Reporting Plan Rev. 1 1-7-2011.doc)

10.0 **Fall Protection Plan**

1. The fall protection plan shall be prepared by a qualified person and developed specifically for the site where the leading edge work, precast concrete work, or residential construction work is being performed and the plan must be maintained up to date. Plan must be signed by site qualified preparer and sent to the PPP Safety Director for final approval and resent to the PPP Safety Director if changes are made.
2. Any changes to the fall protection plan shall be approved by a qualified person
3. A copy of the fall protection plan with all approved changes shall be maintained at the job site.
4. The implementation of the fall protection plan shall be under the supervision of a competent person.



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5. The fall protection plan shall document the reasons why the use of conventional fall protection systems (guardrail systems, personal fall arrest systems, or safety nets systems) are infeasible or why their use would create a greater hazard.
6. The fall protection plan shall identify each location where conventional fall protection methods cannot be used. These locations shall then be classified as controlled access zones
7. Where no other alternative measure has been implemented, the employer shall implement a safety monitoring system in conformance with 1926.502(h).
8. The fall protection plan must include a statement which provides the name or other method of identification for each employee who is designated to work in controlled access zones. No other employees may enter controlled access zones

11.0 Safety Monitor Systems

The employer shall designate a competent person to monitor the safety of other employees and the employer shall ensure that the safety monitor complies with the following requirements:

1. The safety monitor shall be competent to recognize fall hazards;
2. The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner;
3. The safety monitor shall be on the same walking/working surface and within visual sighting distance of the employee being monitored;
4. The safety monitor shall be close enough to communicate orally with the employee; and
5. The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function.



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REVISION HISTORY

Revision number	Description of change	Written by	Checked by	Effective date
1	Revised to meet current standards	George Newton	Safety	1/5/2011
	Program reviewed and Revision History added		GMN	4/4/2014
2	Section 5 -1 changed 6' to 4' six locations Section 6 .3 and 6. 13 added information about SRL's	George Newton		6/30/2015
3	Revised to meet current standards	Mike McCaffrey	MJM	11/14/2017