


Fall Protection Program for General Industry

29 CFR 1910.140, subpart I, Personal Fall Protection Systems
29 CFR 1910, subpart D, Walking-Working Surfaces





Freightliner of Arizona - Tolleson

9899 W. Roosevelt St.
Tolleson, AZ 85353

This Fall Protection Program for General Industry has been developed in accordance with the requirements of Title 29, Sections 1910.140 and 1910.21-30 of the Code of Federal Regulations. I have reviewed this program for completeness and the provisions contained herein will apply to operations at Freightliner of Arizona - Tolleson.

Signature _____ Title _____

Printed Name _____ Date _____

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OSHA REGULATIONS

PROGRAM OVERVIEW

Effective January 2017, the Occupational Safety and Health Administration (OSHA) updated the requirements for walking-working surfaces and slip, trip, and fall hazards (29 CFR 1910, subpart D), and provided additional requirements for personal fall protection systems (29 CFR 1910.140, subpart I) for employers in general industry.

In response to the updated requirements, KPA has developed a Fall Protection Program for general industry employers. The program provides accepted practices for walking-working surfaces as required in the 2016 update of 29 CFR 1910 subpart D, and for the implementation of 29 CFR 1910.140, subpart I, Personal Fall Protection Systems.

Falls from heights and falls on the same level are among the leading causes of serious work-related injuries and deaths. The requirements were revised to better protect employees in general industry from these hazards by updating standards and adding training and inspection requirements.

This program should be made available to all employees since walking-working surfaces affect every person, in every department, performing every activity to some degree. Fall protection systems will not affect everyone, however, employees need to be aware of when, and what kind of fall protection system is required in identified areas.

PURPOSE

The purpose of the Fall Protection Program is to provide criteria for the recognition, control and/or elimination of potential fall hazards which includes slips, trips and falls on the same level (walking-working surfaces), and elevated falls at a level of 4 feet or greater that may require the use of fall protection systems.

The program is designed to explain:

- The requirements for performing workplace hazard assessments;
- How to identify the most common fall hazards;
- The appropriate actions to take to prevent slip, trip and fall incidents;
- How to select the appropriate fall protection systems; and
- The options, recommendations and guidance on how to comply with the updated and added requirements of the regulations.

Effective program implementation requires support from all levels of management. The location manager, and/or their designee, is responsible to ensure program requirements are fulfilled. The program encompasses the total workplace, regardless of the number of employees or the number of work shifts. This applies to all facilities and field operations where personnel could be exposed to fall hazards of 4 feet or greater.

- OSHA defines “walking-working surface” as any horizontal or vertical surface on which an employee walks, works, or gains access to a workplace location. Employers are required to ensure walking-working surfaces are kept in a clean and orderly condition in all places of employment and during all work activities.
- “Fall protection” is any device, equipment, or system that prevents an employee from falling from an elevation or minimizes the negative effects of such a fall.

- This Fall Protection Program is not designed for the construction industry. Fall protection in construction applies when working at elevated heights of 6 feet or greater. Requirements for construction can be found at 29 CFR 1926, subpart M.

If feasible, fall hazards must first be controlled by using engineering controls. When engineering controls are not feasible, then administrative controls, personal fall arrest systems (PFAS) and training must be implemented. When using PFAS, employees are to be connected to an anchor point at all times (100% tie-off).

In order to determine if a Fall Protection Program is required or appropriate for a facility, the location manager, or his/her designee, should complete a preliminary fall hazard assessment to identify potential areas or tasks that might require fall protection. The Preliminary Fall Hazard Assessment Form (Appendix A) can be used to document the findings of the assessment. In addition, a third party (Risk Management Consultant) may be used to assist in completing this assessment.

RESPONSIBILITIES

Location manager

The location manager, or his/her designee, is responsible for ensuring the requirements of the Fall Protection Program are fulfilled. Administration of the program will require sufficient knowledge of hazard recognition and fall protection system requirements, and include the following actions:

- Assess all areas of the workplace to identify potential fall hazards;
- Select and provide appropriate fall protection systems and equipment, as needed or required;
- Ensure employees are trained in the proper use of fall protection systems and equipment;
- Enforce the use of selected fall protection systems and equipment;
- Ensure all fall protection systems and equipment are inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis;
- Ensure fall protection systems are installed and/or set up by a qualified or competent person; and
- Ensure fall protection procedures are followed.

Qualified person

“Qualified” describes a person who has a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has the ability to solve or resolve problems relating to fall protection matters.

- The qualified person must have a thorough understanding of the following:
    - Recognition of different types of fall hazards;

- Procedures to minimize fall hazards;
- Correct procedures for installing, inspecting, operating, maintaining and disassembling fall protection systems;
- Correct use of personal fall protection systems and other equipment;
- Use of fall protection systems and equipment, manufacturer limitations, and fall protection standards; and
- The role of employees in fall protection plans (as applicable).

Competent person

"Competent" describes a person who is capable of identifying existing and predictable hazards in any component of a personal fall protection system, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- The competent person must:
  - Have enough experience and knowledge to know when to call a qualified person;
  - Conduct a fall hazard survey and re-evaluate as work progresses;
  - Understand personal fall protection systems, components of the systems, and how they operate;
  - Ensure all personnel working at heights are trained;
  - Perform inspections of personal fall protection systems prior to each use;
  - Ensure the fall protection system is taken "out of service" following impact loading so all components can be inspected;
  - Ensure a rescue plan is in place in the event an employee falls; and
  - Participate in the incident investigation, if one occurs.

Employees

Employees are responsible for the following:

- Attend all appropriate training;
- Inspect fall protection systems and equipment prior to each use in accordance with manufacturer's guidelines and instructions;
  - Equipment that has been subjected to a fall or impact loading must be removed from service until inspected by a certified and qualified fall protection specialist, competent person, qualified professional engineer or the manufacturer.
- Utilize fall protection systems and equipment, as needed or required;
- Wear all required personal protective equipment (PPE);
- Report hazardous conditions or other health and safety concerns to your supervisor immediately;
- Report incidents, or near-miss incidents to your supervisor immediately; and
- Comply with all aspects of this program.

TRAINING

Ensure employees who are exposed to fall hazards, or who use fall protection systems, receive proper training that includes refresher training when necessary.

- **Training must be performed by a qualified person.**
- **Training must be understandable.** The employer must provide information and training to each employee in a manner that the employee understands.
- **Documentation.** Prepare a written certification record which includes the name of the employees trained, the date(s) of training, and the signature of the person who conducted the training.

Fall hazards

Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses fall protection systems. Employers must ensure employees are trained in at least the following topics:

- The nature of the fall hazards in the work area and how to recognize them;
- The procedures to be followed to minimize those hazards;
- How to estimate free fall distance;
- The correct procedures for selecting, installing, inspecting, operating, maintaining, and disassembling the fall protection systems that the employee uses;
- The limits of the fall protection system; and
- The correct use of personal fall protection systems and equipment including, but not limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

Equipment hazards

The employer must train each employee in the proper care, inspection, use and storage of fall protection systems and equipment prior to use.

- **Dock boards.** Employees must be trained to properly place and secure dock boards to prevent unintentional movement.
- **Rope descent system (RDS).** Employees who use a RDS must be trained in the proper rigging and use of the equipment in accordance with 29 CFR 1910.27.
- **Ladders.** Employees must be trained on how to safely use different types of ladders.
    - Fixed ladders. Employers are required to provide fall protection systems on fixed ladders that extend more than 24 feet above a lower level.
        - New fixed ladders over 24 feet must be equipped with a ladder safety system or personal fall protection system (effective November 19, 2018).
        - Existing fixed ladders over 24 feet must be equipped with a cage or well as required by the existing rule, or a ladder safety system or personal fall protection system as required by the final rule.

Retraining

The employer must retrain an employee when there is reason to believe that the employee does not have the understanding and/or skills required to use fall protection systems or equipment safely. Situations requiring retraining include, but are not limited to, the following:

- When changes in the workplace render previous training inadequate or obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training inadequate or obsolete;
- When inadequacies are identified in an employee's knowledge or use of fall protection systems or equipment;
- When the employee performs any task, or uses equipment in an unsafe manner;
- When the employee is involved in an incident, or near-miss incident that relates to slips, trips and falls, or fall protection systems; or
- Any time fall protection equipment or procedures fail.

FALL PROTECTION PROCEDURES

In addition to ensuring walking-working surfaces are maintained in an appropriate condition, the following procedures provide guidance on how to assess slips, trips and falls, and fall-from-height hazards of 4 feet or greater.

Walking-working surfaces

- Inspect walking-working surfaces regularly and maintain surfaces in a safe condition. The Walking-Working Surfaces Inspection Form (Appendix B) can be used to document these inspections.
    - Determine a frequency of inspection that is adequate to identify and address hazards in a timely manner.
    - Perform inspections as determined.
    - Conduct inspections when workplace conditions, circumstances, or events occur that warrant an additional check to ensure walking-working surfaces are safe.
- Ensure all places of employment including passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, sanitary, and if feasible, dry condition.
- Maintain drainage in areas where wet processes are used, and provide dry standing places such as false floors, platforms and mats, if feasible.
- Maintain walking-working surfaces free of sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, ice, and other slip, trip, and fall hazards.
- Correct or repair any hazardous walking-working surface conditions prior to employee use.
    - Guard the hazard to prevent employees from using the walking-working surface if the hazard cannot be immediately corrected.
    - A qualified person must perform or supervise any correction that may affect the structural integrity of a walking-working surface.

- Ensure each walking-working surface can support the maximum intended load for that surface.
- Ensure there is sufficient clearance in aisles, at loading docks, through doorways and wherever turns or passage must be made when using mechanical handling equipment.
- Provide standard guardrails at every stairway or ladderway floor opening in accordance with applicable OSHA requirements (29 CFR 1910.28).
- Provide skylight floor openings/holes with a standard skylight screen or fixed standard railing on exposed sides.

Basic fall protection

- Perform an assessment of the workplace to identify potential slips, trips and falls, and fall from heights hazards.
- Detail the required steps to take to protect employees from fall hazards. The Fall Hazard Assessment Form (Appendix C) can be used to document fall hazards.
- Identify the appropriate fall protection systems and equipment to use when hazards cannot be eliminated.
    - Fall protection systems and equipment must be selected by a qualified person.
- Provide training to personnel exposed to fall hazards that includes:
    - Recognition of fall hazards;
    - Understanding fall protection systems and equipment; and
    - Familiarity and use of personal fall arrest systems, equipment and procedures.
- Ensure that safe access and egress to elevated work areas are provided.
- Consider operational requirements when designing fall protection for elevated heights.
- Document the load rating of anchor points to be used with PFAS, as determined by a qualified person or professional engineer.
- Fall protection is not required on the working side of platforms used at loading racks, loading docks, and teeming platforms when it is not feasible. The working side exception only applies when the employer demonstrates infeasibility and:
    - The work operation is in process;
    - The employer limits access to the platform to “authorized” employees; and
    - The employer trains authorized employees to recognize fall hazards and understand the procedures to minimize them

EXCEPTIONS

There are four exceptions from the 4 foot trigger height to use fall protection:

1. **Over dangerous equipment**
    - When employees are less than 4 feet above dangerous equipment, they must be protected from falling into or onto the equipment.
2. **On fixed ladders**

- Employers are required to provide fall protection to those fixed ladders that extend more than 24 feet above a lower level.

3. **Use of motorized equipment on dock boards**
    - Employees often use motorized equipment to move large and/or heavy material across dock boards. This equipment may not fit on a dock board that has guardrails or handrails.
4. **Around repair, service, and assembly pits**
    - Employers do not have to provide fall protection systems for service, repair, or assembly pits that are less than 10 feet deep, provided the employer:
        - Limits access within 6 feet of the pit edge to trained, authorized employees;
        - Applies floor markings or warning lines and stanchions at least 6 feet from the pit edge; and
        - Posts visible caution signs that state “Caution—Fall Hazard-Open Pit,” or similar verbiage.
    - When two or more pits in a common area are not more than 15 feet apart, the employer may comply by placing contrasting floor markings at least 6 feet from the pit edge around the entire area around the pits.

PROTECTION FROM FALLING OBJECTS

The requirements listed in the walking-working surface regulation are not only designed to protect employees from falls on the same level and falls from heights, but also to protect employees from having objects fall on them.

- Protect employees from falling objects by implementing one or more of the following:
    - Erect toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;
    - Erect canopy structures or keep potential falling objects away from an edge, hole or surface opening; or
    - Guard/barricade the area where objects could fall and minimize or prohibit employee access.
- Install toeboards at the walking surface level of a guardrail system. Toeboards are designed to prevent materials, tools, and equipment from falling to a lower level, and to protect employees from falling objects. Ensure toeboards used for falling object protection:
    - Are erected along the exposed edge of the overhead walking-working surface;
    - Have a minimum vertical height of 3.5 inches as measured from the top edge of the toeboard to the level of the walking-working surface;
    - Have a minimum height of 2.5 inches when used around vehicle repair, service, or assembly pits;
        - Toeboards may be omitted around vehicle repair, service, or assembly pits when the toeboard would prevent access to a vehicle that is over the pit.

- Do not have more than a ¼ inch opening above the walking-working surface;
- Are solid or do not have any opening that exceeds 1 inch; and
- Are capable of withstanding, without failure, a force of at least 50 lbs in any downward or outward direction.

Ensure there is a good housekeeping program in place to identify and remove hazards, and provide employees a safe place to work. When materials and debris are properly cleaned up and tools are put in proper storage areas, the risk of injury from falling objects can be greatly reduced.

REQUIREMENTS OF THE FINAL RULE

Inspections of walking-working surfaces

Employers are required to perform inspections of walking-working surfaces on a regular basis, and as necessary, to identify hazards and address them in a timely manner. Although it may seem the rule will have no impact on your facility, consider all areas or tasks that might be covered by the regulations.

Common fall hazards may include, but are not limited to the following:

Floor holes	Mezzanines	Vehicle repair, service & assembly pits
Floor openings	Overhead storage areas	Work performed on high-profile vehicles: sprinter vans, commercial trucks, RVs, railcars
Wall openings	Unprotected elevations/platforms	Parking lots/parking areas
Aisles/walkways	Work over dangerous equipment	Scaffolding
Stairways	Work over chemical tanks	Aerial lifts
Open sides & edges (leading edge)	Roof openings	Excavations
Dock boards	Skylights	Grain bins
Loading docks	Ladders	Step bolts

Fall protection systems

Employers are no longer required to make guardrails the primary means of fall protection, they may now choose from a range of accepted fall protection systems and equipment appropriate for the situation. Following are suggested fall protection options:

- **Covers.** Protect employees from hazards associated with holes by the use of covers. A hole is a gap or void 2 inches or more in a floor, roof, deck, or other walking/working surface that presents hazards due to:
    - Employees falling through holes;
    - The hole's design creating a trip hazard; or
    - Objects falling through the hole and injuring employees below.
    - Covers for permanent holes are typically built for a specific purpose (i.e. permanent access points, manhole covers, and trap doors) and are only effective when they are properly designed and secured in place.
    - Effective hole covers are:

- Large enough to provide appropriate overlap to prevent employees from falling through;
- Strong enough to support at least twice the anticipated weight imposed by the heaviest load;
- Left in place over the hole until access is needed;
- Secured and do not create trip hazards; and
- Marked clearly as “Hole Cover” or “Open Hole”

- **Guardrail System.** Guardrail systems are installed on open sides of elevated locations. The guardrail consists of a vertical barrier with a top-rail, mid-rail, (toeboard as appropriate), and intermediate vertical rails erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.
  - Guardrails are common for storage areas on elevated levels, mezzanines and at loading docks.
  - Guardrail systems must meet the following criteria:
    - Top-rails must be installed 42 inches (+/- 3 inches) above the walking/working surface and be capable of withstanding a minimum force of 200 lbs in any outward or downward direction within 2 inches of the top edge;
      - The top-rail must not deflect to a height of less than 39 inches above the walking-working surface when the test load is applied.
    - Mid-rails must be installed 21 inches above the walking/working surface and be capable of withstanding a minimum force of 150 lbs in any outward or downward direction;
    - Posts must be spaced not more than 8 feet apart on centers;
    - There are no openings more than 19 inches wide in any guardrail system;
    - Do not use plastic or steel banding as top-rail;
    - Provide top-rails and mid-rails of at least ¼ inch thickness or diameter, and smoothly surfaced to prevent cuts and punctures; and
    - Add high-visibility flags to the top-rail when using wire rope for top-rails.
  - Erect guardrails on all sides around holes or floor openings.
  - Install a gate or offset guardrails when they are used around holes that provide access, such as ladder ways, so that a person cannot walk directly into the floor opening.
  - Place a chain, gate or removable guardrail across the access point to hoisting operations when operations are not taking place.
  - Provide guardrail systems or other fall protection systems at **all** locations above dangerous equipment, even if not 4 feet or greater.

- Provide guardrails at all wall openings where the outside bottom edge of the 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.
- Erect guardrail systems on all unprotected sides or edges of ramps and runways.

- **Personal Fall Protection System.** A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.
  - **Personal Fall Arrest System (PFAS).** A personal system used to prevent a falling employee from contacting a lower level. A PFAS consists of a full-body harness, anchorage, connector, and may include a lanyard, deceleration device, lifeline, or suitable combination of these.
    - Consider using a PFAS when performing work on elevated surfaces where guardrails are not a convenient or practical solution, such as on top of high profile vehicles.
    - Requirements for a PFAS include training on inspection, use and proper maintenance and storage.
    - Inspect all fall protection components for wear, damage, and deterioration prior to each use.
    - Remove damaged or defected equipment from service immediately
    - Use only full body harnesses, shock-absorbing lanyards, horizontal lifelines, self-retracting lifelines and anchorage points which meet the following criteria:
      - Limit the maximum arresting force on an employee to 1,800 lbs;
      - Prevent the employee from free falling more than 6 feet or from contacting any lower level;
      - Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet;
      - Are strong enough to withstand twice the potential impact energy of the employee free falling a distance of 6 feet; and
      - Sustain the employee within the system/strap configuration without making contact with the employee's neck and chin area.
    - All components of a personal fall arrest system meet the specifications of 29 CFR 1910.140, Personal Fall Protection Systems.
    - Full body harness. Harness that consists of straps that secure around the torso of the employee in a manner to distribute the force of a fall over the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
    - Connector. A device which is used to couple (connect) parts of the PFAS. Three common connectors include:

- Snap hook. Automatic-locking with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or suffering permanent deformation
    - Non-locking snap hook with a self-closing gate that remains closed, but not locked, is prohibited
- D-ring. A metal loop with a spring-hinged side that can quickly and reversibly connect components.
    - Attachment of the D-ring to the body harness must be located in the center of the wearer's back near shoulder level
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or incurring permanent deformation
- Carabiner. A connector usually oval shaped body with a closed gate that may be opened to attach another object, and when released closes automatically.
    - Must be capable of sustaining a minimum tensile load of 5000 lbs
    - Must be proof-tested to a minimum tensile loaf of 3600 lbs without cracking, breaking, or incurring permanent deformation

- Anchor point. Secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be:
    - Capable of supporting at least 5,000 lbs (3,600 lbs if engineered/ certified by a qualified person) per person; and
    - Independent of any anchor point being used to support or suspend platforms.
- Lanyard. A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body harness or body belt to a deceleration device, lifeline, or anchorage.
    - Lanyards must be compatible with all connectors used.
    - Lanyards must be protected from being cut, abraded, melted, or otherwise damaged.
- Lifeline. A flexible line for connection to an anchorage at one end so as to hang vertically (vertical lifeline), or for connection to anchorages at both ends so as to stretch horizontally (horizontal lifeline), and serves as a means for connecting other components of the system to the anchorage.

- Provide separate vertical lifelines for each employee using a vertical lifeline.
- A self-retracting lifeline/lanyard is a device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Self-retracting lifelines and lanyards which limit free fall to 2 feet or less must be capable of sustaining a minimum tensile load of 3,000 lbs in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall to 2 feet or less, rip-stitch, and other shock-absorbing lanyards must be capable of sustaining a minimum tensile load of 5,000 lbs in the fully extended position.

▪ Deceleration device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lanyard, etc. that serves to dissipate energy during a fall.

▪ Train employees on how to properly fit (including weight limitations) and wear a full-body harness, identify proper tie-off techniques and connections, and determine suitable anchorage points.

▪ Instruct employees to rig fall protection to prevent a free fall more than 4 feet and not to contact any lower level.

▪ Do not tie off to guardrail systems or hoists.

▪ Require employees to remain tied off 100% of the time when at or above 4 feet, or if less than 4 feet over hazardous equipment.

▪ Remove from service any component of a personal fall protection system that has been subjected to impact loading.

- Do not reuse equipment until inspected by a qualified or competent person, professional engineer, or manufacturer and determined to be undamaged.
- Most equipment is not intended for reuse following impact loading.

▪ ***Use of a body belt in a PFAS is prohibited!***

o **Rescue.** When personal fall arrest systems are used, special consideration must be given to promptly rescuing an employee should a fall occur. The Fall Protection Rescue Assessment (Appendix D) can be used to document this assessment.

▪ Evaluate the availability of rescue personnel, ladders, or other rescue equipment for situations where an employee cannot perform self-rescue.

▪ Post emergency contact information if relying on outside organizations for rescue.

▪ Employees can perform self-rescue after the fall has arrested if devices have descent capability.

- **Travel Restraint System.** A combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support (full-body harness or body belt) used to eliminate the possibility of an employee going over the unprotected edge or side of a walking-working surface.
    - Use in areas where sufficient anchor points for PFAS are not available.
    - Requirements for snap hooks, D-rings and other connectors are the same as listed in the PFAS section of this program.
    - This system does not support the employee's weight but it is used to prevent employees from reaching the fall hazard, such as an unprotected side or edge.
- **Positioning System.** A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and perform work with both hands free.
    - A system designed to hold and sustain an employee at a work location and limit the free fall to 2 feet or less.

- **Ladder Safety System.** A system or device attached to a fixed ladder designed to eliminate or reduce the possibility of an employee falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and full body harness or body belt.
    - Cages and wells are not considered ladder safety systems.
- **Safety Net System.** A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling employees before they make contact with a lower level or obstruction. Safety nets can be used where the use of ladders, scaffolds, catch platforms, temporary floors, or safety lines are impractical.
    - Install safety nets as close as possible under the walking/working surface on which employees are working, but never more than 30 feet below this level.
    - Safety nets must extend outward horizontally from the outermost projection as follows:
        - 8 feet for a vertical drop of up to 5 feet
        - 10 feet for a vertical drop between 5 and 10 feet
        - 13 feet for a vertical drop more than 10 feet but not to exceed 30 feet
    - Install safety nets with enough clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
    - Remove all materials, scrap, equipment, and tools which have fallen into the net as soon as possible, but at least before the next work shift.
    - Safety nets must be inspected at least once a week for wear, damage, and other deterioration, and after any occurrence which could affect the integrity of the safety net system. Defective components shall be removed from service and defective or damaged nets are not to be used.

Scaffolding requirements

The existing scaffolding standards for general industry will be replaced with those currently in use for construction (29 CFR 1926.450).

Fixed ladders

The following requirements apply to fixed ladders that extend more than 24 feet above a lower level.

- **Existing fixed ladders.** Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **New fixed ladders.** Each fixed ladder installed on and after November 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.
- **Replacement.** When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **Final deadline.** On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system, or a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section, the employer must ensure:

- The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections; and
- The ladder has rest platforms provided at maximum intervals of 150 feet.

The employer must ensure ladder sections having a cage or well:

- Are offset from adjacent sections; and
- Have landing platforms provided at maximum intervals of 50 feet.

The employer may use a cage or well in combination with a personal fall arrest system or ladder safety system provided that the cage or well does not interfere with the operation of the system.

Rope descent systems (RDS) and anchorage certification

- RDS consists of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seat board. These systems are commonly used to perform elevated work such as window washing.
- RDS requires building owners to provide, and employers to obtain, proof that permanent RDS anchorages have been properly inspected, tested, and maintained, and are able to support 5,000 lbs per attached employee. RDS are prohibited at heights of 300 feet above grade unless all other systems are proven to be impractical or pose a greater hazard.

Phase-out of the “Qualified Climber” exception in outdoor advertising

Although this requirement will not apply to many employers, it is important to understand how the regulations might apply.

- The final rule requires all employees to comply with ladder safety and fall protection requirements when climbing fixed ladders on billboards over 24 feet tall.

- Employers have 2 years to install systems that comply with either the existing standard (i.e., cages and wells) or the new ladder safety and personal fall protection standards.

INSPECTIONS

Inspection of fall protection systems

- PFAS must be inspected prior to each use for wear, damage, defects and other deterioration.
    - Remove defective components from service immediately and either destroy the equipment or label it “out of service” or “damaged.”
- A qualified or competent person must inspect each PFAS at least annually, or more often if recommended by the manufacturer.
    - Document the date of each inspection.
- Use the following criteria to help maintain equipment in good working condition:
    - Full Body Harness. The Fall Protection Full Body Harness Inspection Form (Appendix E) can be used to document these inspections.
        - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
        - Inspect harness for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside and outside of the body pad.
        - Examine all nylon webbing to ensure that there are no burn marks which could weaken the material.
        - Verify there are no torn, frayed, or broken fibers; pulled stitches; or frayed edges anywhere on the harness.
        - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame.
        - The tongue or billet of the belts receive heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion.
            - Never punch additional holes in the harness.
        - Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.
        - Examine the condition of D-ring rivets and D-ring metal wear pads (if any). Discolored, pitted or cracked rivets might indicate chemical corrosion.
        - Inspect friction buckles for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

- Inspect the sliding bar buckles and buckle frames for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.
- Store harnesses in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
- Remove harnesses that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.

- Lanyards/Shock-Absorbing Lanyards. The Fall Protection Lanyard Inspection Form (Appendix F) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Visually inspect shock absorber (if present) for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
  - Inspect the shrink-wrapped casing of the shock absorbing pack to ensure that it has not been expanded or damaged. Impact indicators must not show expansion.
  - Inspect webbing for cuts, holes, frays, discoloration, paint contamination, heat and excessive wear damage. Termination is the webbing end which meets the connectors.
  - Inspect cable for bird caged wire or cable separation.
  - Inspect connectors for corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
  - Inspect the snap hooks for distortions in the hook, locks, and eye.
  - Check carabiner for excessive wear, distortion, and lock operation.
  - Ensure that all locking mechanisms seat and lock properly.
  - Store lanyards in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
  - Remove lanyards that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.
- Self-Retracting Lanyards/Lifelines. The Fall Protection Self-Retracting Lanyard Inspection Form (Appendix G) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Inspect the body to ensure there is no physical damage.
  - Make sure that all nuts and rivets are tight.
  - Make sure that the entire length of the nylon strap/wire rope retracts freely, and is free from cuts, burns, abrasions, kinks, knots, broken stitches/strands and excessive wear.

- Test the unit by pulling sharply on the lanyard/ lifeline to verify thatthe locking mechanism is operating correctly.
- Conduct and document a monthly inspection of all self-retracting lanyards/lifelines by a qualified or competent person.
- Return the device to the manufacturer for service per manufacturer's specifications (usually annually).
- Inspect visually and functionally after a fall or impact loading.

- Snap Hooks and Carabiners (Hardware). The Fall Protection Hardware Inspection Form (Appendix H) can be used to document these inspections.
  - Ensure the load rating is either forged or etched into the spine of the carabiner or snap hook and is legible.
  - Verify:
    - There are no hook and eye distortions
    - There are no cracks or pitted surfaces
    - The keeper latch is not bent, distorted, or obstructed
    - The keeper latch seats into the nose without binding
    - The keeper spring securely closes the keeper latch
  - Test the locking mechanism to verify that the keeper latch locks properly.
  - All snap hooks involved in a fall should be destroyed.
- Anchor Points. The Fall Protection Anchor Inspection Form (Appendix I) can be used to document these inspections.
  - A qualified or competent person must perform an annual inspection of all tie-off and anchor points.
  - Maintain documentation of anchorage load ratings and inspections.
  - Inspect anchorages for integrity and attachment to solid surface prior to use.
- Horizontal Lifelines
  - Horizontal lifelines must be designed, installed, and used under the supervision of a qualified person.
  - Lifelines are part of a complete personal fall arrest system and must maintain a safety factor of at least 2.
  - Inspect the structural integrity of line and anchors before each use.
  - A qualified or competent person will complete and document an annual inspection.

STORAGE AND MAINTENANCE

Maintenance and storage of fall protection equipment

To ensure that fall protection systems are ready and able to perform as designed, a preventative maintenance schedule should be implemented.

Following are basic requirements of a maintenance program, however, you should follow manufacturer's recommendations for storage and maintenance, if provided.

- Documented inspections must be performed annually by a qualified or competent person, or more often if required by the manufacturer.
- Inspect all fall protection equipment prior to each use and verify the last documented inspection date.
- Store personal fall arrest equipment in a cool, dry, clean location and in a manner that maintains its shape. (It is preferable to hang harnesses)
    - Never store PFAS equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow).
    - Never store equipment in areas with excessive heat, chemicals, fumes, corrosive elements or moisture.
    - Consider possible exposure to radiation, electrical conductivity, and chemical effects when storing equipment
- Maintain a PFAS in a clean and dry condition so it is ready for use.
    - Clean with a mild, non-abrasive soap and hang to dry.
    - Never force dry or use strong detergents in cleaning.
- Never use equipment for any purpose than its intended use (personal fall arrest).
- Once a PFAS is exposed to a fall or impact loading, label "out of service" and do not use until inspected by a qualified or competent person, or returned to the manufacturer for inspection.
    - Equipment that is "out of service," damaged, or in need of maintenance will be tagged as unusable and will not be stored in the same area as serviceable equipment.
    - Components of a PFAS may have to be destroyed after impact loading.

EFFECTIVE DATES

Most of the requirements of the final rule became effective on January 17, 2017, however, some provisions of the rule have delayed effective dates:

By…	Employers must ensure that…
November 20, 2017	Anchorages for rope descent systems must be inspected and certified, as applicable.
November 19, 2018	New fixed ladders over 24' tall must be equipped with ladder safety systems or personal fall protection systems.
	Existing fixed ladders over 24' tall must be equipped with a cage or well per the existing rule, or a ladder safety system or personal fall protection system per the final rule.
November 18, 2036 (20 years after initial publication)	All fixed ladders over 24' tall are equipped with ladder safety system or personal fall protection systems.

DEFINITIONS

Anchorage - A secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt – A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness - Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person – A person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector – A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.

Deceleration device - Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip-stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber - A device that limits shock-load forces on the body.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system - A system specifically designed to secure, suspend, or assist in retrieving an employee in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall - The act of falling before a personal fall 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 belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

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

Lanyard - A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading edge - The edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which

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

Opening - A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system - A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system - A body belt or 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.

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.

Retractable lifeline - A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope grab - A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

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

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

Snap-hook - A connector comprised 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 are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard - A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface - Any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system - A 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 guardrail, body belt, or safety net systems to protect employees in the area.

Work area - That portion of a walking/working surface where job duties are being.

APPENDICES

Appendix A: Preliminary Fall Hazard Assessment

Appendix B: Walking-Working Surfaces Inspection Form

Appendix C: Fall Hazard Assessment Form

Appendix D: Fall Protection Rescue Assessment

Appendix E: FP Full Body Harness Inspection Form

Appendix F: FP Lanyard Inspection Form

Appendix G: FP Self-Retracting Lanyard Inspection Form

Appendix H: FP Hardware Inspection Form

Appendix I: FP Anchor Inspection

Appendix J: Hole Cover Sign-Example

Appendix K: Open Pit Sign-Example

Appendix A Preliminary Fall Hazard Assessment

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	

Section 1: Fall Hazard Identification (See page 2 for additional guidance) ***Will employees be operating in close proximity to any of the following:***		
1. Are there unprotected wall / floor openings that are 4′ or more above a lower level?	☐ Yes	☐ No
2. Are there unprotected edges (4′ above lower level) or leading edges (6′ above lower level)?	☐ Yes	☐ No
3. Are there open holes in floors (i.e. floor drains, manholes)?	☐ Yes	☐ No
4. Are there openings in roofs that could allow a fall to a lower level (i.e. roof hatches, ladder access, skylights)?	☐ Yes	☐ No
5. Is work being performed on roofs of high-profile vehicles or rail cars that are 4′ or higher?	☐ Yes	☐ No
6. Are there elevated storage areas with unprotected sides or edges (i.e. mezzanines)?	☐ Yes	☐ No
7. Are employees exposed to open repair, service or assembly pits (lube)?	☐ Yes	☐ No
8. Are employees performing work within 15′ of the edge of the facility roof?	☐ Yes	☐ No
9. Are employees climbing fixed ladders over 24′ in height?	☐ Yes	☐ No
10. Are employees exposed to excavations, cliffs, or open pits over 4′ deep? (Construction is 6′ deep)	☐ Yes	☐ No
11. Are employees using aerial lifts such as manlifts, boom lifts, spider lifts, vertical personnel lifts, scissor lifts, bucket trucks, cherry pickers?	☐ Yes	☐ No
12. Are there any other unprotected elevated work surfaces that are 4′ or more above a lower level, or 6′ or more above a lower level in construction?	☐ Yes	☐ No

Section 2: Identification of Requirement for Fall Protection	
For facilities in general industry, the trigger height for fall protection systems is 4′ or more above a lower level.	
For facilities or activities in construction, the trigger height for fall protection systems is 6′ or more above a lower level.	
Employees working or operating above dangerous equipment (regardless of height) must be protected from falling into the equipment.	
If you have answered "No" to all questions in Section 1, then no fall hazards have been identified and no further action is necessary at this time.	☐
If you only answered "Yes" to question #7, see page 2 for requirements to proceed.	☐
If you have answered "Yes" to other questions in Section 1, then please review and select an option in Section 3.	☐

Section 3: Fall Protection Control	
The identified fall hazards at this location will be managed by installing engineering controls that comply with 29 CFR 1910 Subpart D (general industry) or 29 CFR 1926 Subpart M (construction). Additional fall protection systems, procedures, or PPE will not be necessary at this time.	☐
The identified fall hazards at this location will be managed by the installation and use of fall protection systems that may include a full body harness, lanyard, self-retracting lanyard, fall restraint system, etc. A further assessment will be conducted and fall protection systems, procedures and equipment will be installed.	☐

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Section 1: Additional Guidance

1. **Unprotected Wall/Floor Opening** - A gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level. This could include an opening in guardrails on a mezzanine, an open storage landing, etc.

2. **Unprotected edges** - Any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level. This could include roofs, mezzanines, landings, etc.
   Unprotected leading edges – (construction tern) - Leading edge means the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.

3. **Open holes in floors** - A gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension. This could include open drain traps.

4. **Openings in roofs or skylights** - A gap or open space in a roof or skylight that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

5. **Unprotected roofs of high-profile vehicles** – This would include a roof used as a walking working surface at a height of 4 feet or greater. High-profile vehicles could include: tractors, trailers, semi trucks, RVs, vans, buses, rail cars, etc.

6. **Storage areas without side or edge protection** – This could include unprotected edges/sides of mezzanines, areas above offices, or landings. If an employee steps off a ladder to handle materials and the area is 4 feet or more above a lower level then a fall protection system is necessary.

7. **Open repair, service or assembly pits** – This would be an opening in the floor designed for employee entrance in order to perform work. This could include lube pits or transmission repair pits and alignment pits. (This would not include an excavation or trench)

1910.28(b)(8) *Repair pits, service pits, and assembly pits less than 10′ in depth*. The use of a fall protection system is not required for a repair pit, service pit, or assembly pit that is less than 10′ deep, provided the employer:

1) Limits access within 6′ of the edge of the pit to authorized employees trained in accordance with § 1910.30;

2) Applies floor markings at least 6′ from the edge of the pit in colors that contrast with the surrounding area; or places a warning line at least 6′ from the edge of the pit as well as stanchions that are capable of resisting, without tipping over, a force of at least 16 lbs applied horizontally against the stanchion at a height of 30″; or places a combination of floor markings and warning lines at least 6′ from the edge of the pit. When two or more pits in a common area are not more than 15′ apart, the employer may comply by placing contrasting floor markings at least 6′ from the pit edge around the entire area of the pits; and

3) Posts readily visible caution signs that meet the requirements of § 1910.145 and state "Caution-Open Pit."

8. **Facility roof** – This refers to the roof of the facility. If employees are going to be with 15 feet of the roof edge, then a fall protection system is required. Work an a HVAC system, for example.

9. **Fixed ladders over 24 feet in height** – A fixed ladder is one which is permanently attached, such as a ladder to access the roof of the building.

10. **Excavation** - The removal of earth, usually to allow the construction of a foundation, basement or to perform pipe work. If the fall distance is greater than 6 feet then a fall protection system must be installed.

11. **Aerial lifts** – This could include articulated booms, telescopic booms, forklift attachment cages designed to lift an employee, scissor lifts, etc.

Comments:

Appendix B: Walking-Working Surfaces Inspection Form
(Slip, Trip & Fall Hazards)

Company Name: Address:	Specific Location: Assessor/s:	
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

WALKING-WORKING SURFACES			
Surface Conditions:	**YES**	**NO**	**NA**
1. Floors are kept clean, orderly, sanitary and dry (except where wet processes are necessary).	☐	☐	☐
2. Where wet floors or processes are necessary, proper drainage and/or raised surfaces, dry standing platforms, mats, or other non-slip material are provided.	☐	☐	☐
3. Floors are free of leaks, spills, water, snow, ice and other slip hazards.	☐	☐	☐
4. Floors are free from protruding nails, loose boards, cracked tiles, and other tripping hazards.	☐	☐	☐
5. Holes are repaired or covered.	☐	☐	☐
6. Surfaces in poor condition are repaired or guarded by visible barricades.	☐	☐	☐
7. Carpeting and other floor mats and trim, lay flat and are securely fixed.	☐	☐	☐
8. Entryways have absorbent mats to prevent slips due to wet conditions.	☐	☐	☐
9. Changes in direction or elevation are clearly marked.	☐	☐	☐
10. Adequate headroom is provided for the entire length of all walkways.	☐	☐	☐
11. There is adequate clearance in aisles, through doorways, and at loading docks.	☐	☐	☐
12. Standard guardrails are provided at every stairway or ladderway floor opening.	☐	☐	☐
13. Floors can support the maximum intended load.	☐	☐	☐
14. Parking lots and sidewalks are free of broken pavement, potholes, gaps and cracks.	☐	☐	☐
15.	☐	☐	☐
Housekeeping Hazards:	**YES**	**NO**	**NA**
16. Work areas, aisles, and walkways are free of debris or clutter.	☐	☐	☐
17. Walkways are free of cords and wiring.	☐	☐	☐
18. Exit and entrances are unobstructed at all times.	☐	☐	☐
19. Emergency exits are clearly marked.	☐	☐	☐
20. Landings and stairways are free of debris and storage.			
21. Containers are readily available for the disposal of trash.	☐	☐	☐
22. Equipment and materials are cleaned up and stored when not in use.	☐	☐	☐
23. All spilled materials are cleaned up immediately.	☐	☐	☐
24. There are adequate supplies for clean-up, barricading, and posting wet-floor signs.	☐	☐	☐
25. Employees know where housekeeping materials are located and how to use them.	☐	☐	☐
26. Employees are trained to clean up any spills promptly and to notify others of the spill.	☐	☐	☐
27.	☐	☐	☐
Stairs, Ramps, and Guardrails:	**YES**	**NO**	**NA**
28. Changes in elevation are clearly identified.	☐	☐	☐

29. For elevation changes greater than 19 inches, either a ramp or stairs are used.	☐	☐	☐
30. Walking surfaces of ramps contrast visually and materially from the surrounding floor.	☐	☐	☐
31. Ramps and stairs have slip-resistant surfaces.	☐	☐	☐
32. Stair riser height and tread depth is uniform.	☐	☐	☐
33. Handrails are present if stairs have one or more risers.	☐	☐	☐
34. On stairways that are less than 44 inches wide that are enclosed on both sides, at least one handrail is present.	☐	☐	☐
35. On stairways that are less than 44 inches wide that and are open on one side, a stair rail or guard is present on the open side.	☐	☐	☐
36. On stairways that are wider than 44 inches, handrails are present on both sides.	☐	☐	☐
37. Handrails on stairs run the entire length of stairway and extend past the top and bottom steps.	☐	☐	☐
38. Handrails are tight, and at the proper level (between 30-38" high).	☐	☐	☐
39. Adequate lighting is provided in stairwells and landings.	☐	☐	☐
40. Guardrails are provided wherever walking surfaces are elevated more than 48 inches above the floor.	☐	☐	☐
41. Doors to stairways open onto stairway landings, not directly onto a step.	☐	☐	☐
42.	☐	☐	☐
Inspections and Administrative Controls:	**YES**	**NO**	**NA**
43. An inspection program/schedule for walking-working surfaces has been established.	☐	☐	☐
44. Employees are trained in slip, trip and fall hazard identification and prevention.	☐	☐	☐
45. A building inspection is performed to assure all work areas are well-lit.	☐	☐	☐
46.	☐	☐	☐
47.	☐	☐	☐

REQUIRED ACTIONS / RECOMMENDATIONS	
Hazard (question #)	

ADDITIONAL COMMENTS

SIGNATURE OF ASSESSOR		
* ***File a copy of this inspection report in your KPA Yellow Box for future reference.***		
Name:	Signature:	
Title:	Date:	Time:

Appendix C: Fall Hazard Assessment Form

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

FALL HAZARD ASSESSMENT CHECKLIST		
1. If industry classification is general, is the fall distance over 4 feet?	☐ Yes	☐ No
2. If industry classification is construction, is the fall distance over 6 feet?	☐ Yes	☐ No
3. Have slipping and tripping hazards been removed or controlled?	☐ Yes	☐ No
4. Can an employee enter the area without restriction and perform work?	☐ Yes	☐ No
5. Will employees be working over dangerous equipment?	☐ Yes	☐ No
6. Can conventional Fall Protection Systems be used? (i.e. guardrails, safety nets, or PFAS)	☐ Yes	☐ No
7. Are fall prevention systems such as cages, guardrails, toeboards, manlifts in place?	☐ Yes	☐ No
8. Is this area an open repair, service or assembly pit where the fall distance is less than 10 feet?	☐ Yes	☐ No
9. Have visual warnings of fall hazards been installed?	☐ Yes	☐ No
10. Can the distance a worker could fall be reduced by installing platforms, nets, etc.?	☐ Yes	☐ No
11. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ Yes	☐ No
12. Are there any falling equipment or tools hazards for the area below the working area?	☐ Yes	☐ No
13. Does this area have additional recognized hazards such as chemical sprays or hot work?	☐ Yes	☐ No
14. Is the space designated as a Permit Required Confined Space?	☐ Yes	☐ No

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

- *Potential environmental conditions that could impact safety:*

Initials	Condition	Remarks/Recommendations

- *Possible required structural alterations:*

Initials	Alteration	Remarks/Recommendations

- *Possible task modification that may be required:*

Initials	Task	Remarks/Recommendations

- *Breakdown of vertical and horizontal movement: (sketch out work task):*

FALL PROTECTION SYSTEM

- *Best Recommended Form of Fall Protection System Based on Above Conditions:*

Initial	Equipment	Remarks/Recommendations

1. Will Recommended System Have the Capability to Support or Arrest 310lbs?	☐ **Yes**	☐ **No**

- *Training Requirements:*

Initial	Requirement	Remarks/Recommendations

- *Additional Personal Protective Equipment Required:*

Initial	Requirement	Remarks/Recommendations

☐ **Approved**

AUTHORIZATION

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Fall Hazard Assessment Checklist Reference	
Question	Program Reference
If you have answered "Yes" to any of questions 1-4	"Fall Protection Procedures" - Page 7
If you have answered "Yes" to question 5	"Exceptions" - Page 8
If you have answered "No" to question 6	"Fall Protection Plans" – Page 14
If you have answered "No" to question 7	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 8 or "No" to question 9	"Exceptions" - Page 8
If you have answered "Yes" to question 10 or "No" to question 11	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 12	"Protection From Falling Objects" - Page 9
If you have answered "Yes" to questions 13 or 14	Those additional hazards will need to be taken into consideration when selecting the best form of fall protection system

Appendix D: Fall Protection Rescue Assessment

Company Name: Address:	Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction

Contacts: (Please list in notification priority)

Onsite Rescue Team	*Phone Number*	*24 Hour Emergency Phone Number*	*Shift Number*
Other Emergency Contacts	*Phone Number*	*24 Hour Emergency Phone Number*	

Arranged Emergency Responding Agencies: ☐ **N/A**

Agency	*Phone Number*	*Contact Name*

Local First Aid Service:

Rescue Factors:

Initials	*Arresting Area (Height)*	*Remarks/ Recommendations*
Initials	*Rescue Obstructions or Hazards*	*Remarks/ Recommendations*

Rescue Equipment:

Equipment	*Location of Equipment*
☐ Ladder	
☐ Aerial Lift	
☐ Rescue Rope	
☐ Scaffold	
☐ Crane	
☐ Rescue Pole	
☐ RSQ	
☐ Life Jacket/Ring	
☐ First Aid Supplies	
☐	

Rescue Response Procedure:
Description of rescue process: 1) Notify rescue team 2) Make medical assessment 3) Determine if emergency services need to be notified 4) If possible, have employee perform self-rescue 5) 6) *Remember that all equipment involved in a fall arrest or impact loading must be removed from service and destroyed.*

Have all members of the Rescue Team been trained in all rescue procedures for this site?	☐ **Yes** ☐ **No**

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Rescue Plan Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Appendix E: Fall Protection Full Body Harness Inspection Form

Harness #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer _____

P = PASS F = FAIL

		Label		Hardware				Webbing				Stitching			
Date	**Inspector Initials**	Label	Impact Indicator	Shoulder Adjustment Buckles	Leg/Waist Buckles	D-Ring	Chest Buckle	Shoulder Straps	Chest Straps	Leg Straps	Back Straps	Shoulder Straps	Chest Straps	Leg Straps	Back Straps

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware – Inspect for any corrosion, nicks, pitting, burn marks, or cracks. All buckle system grommets must be in place without any damage. Mating buckles are flush and not bent.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.

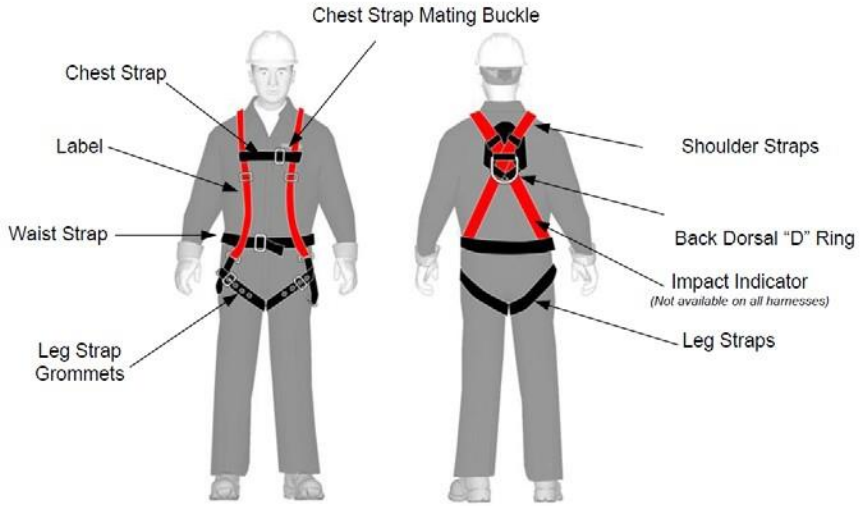
If any portion of the harness shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the harness receives any "Fails" or "F's" in the table above, then that harness must be taken out of service and discarded.

Safety Harness Inspection

Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. **FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS.**

CONDITION

1. Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. **Check for thread separation or rotting both inside and outside of the body pad.**
2. Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. **Check for distortion or sharp edges.**
3. The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. **Check for excessive elongation or distortion.**
4. Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. **Bent rivets will fail under stress.**
5. Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). **Discolored, pitted or cracked rivets may indicate chemical corrosion.**
6. Friction buckles must be inspected for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.
7. Sliding bar buckles must have the buckle frame and sliding bar inspected for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.



Appendix F:

Fall Protection Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

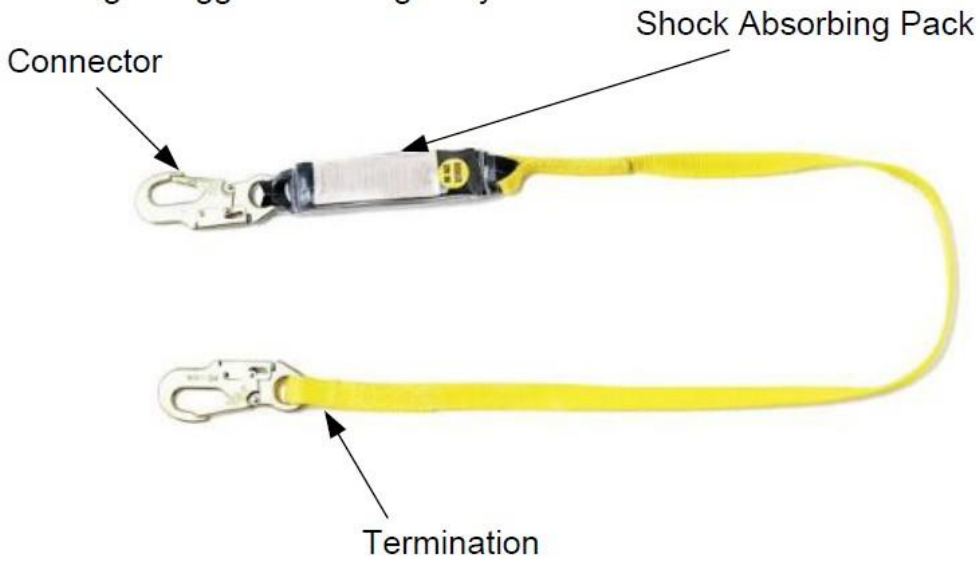
		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Cover	Casing

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors – Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.

If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

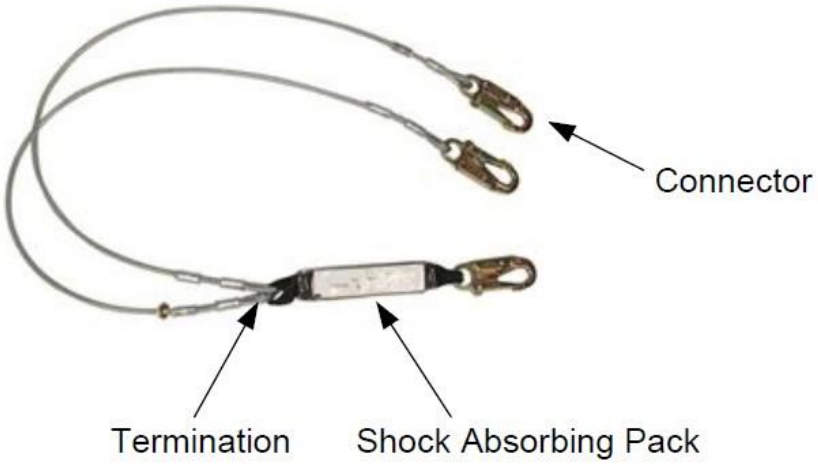
Lanyard Condition

Single Legged Webbing Lanyard

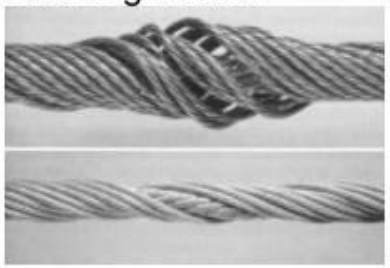


Webbing and Stitching Fraying

Double Legged Wire Rope Lanyard



Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix G: Fall Protection Self-Retracting Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	Housing	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Casing	Attach Point	Hardware

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors– Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.
Housing – Inspect for any signs of cracks, dents, rust, or missing hardware. Attachment point is secure and free of corrosion, dents, cracks, or discoloration.

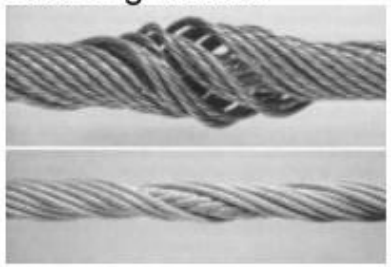
If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

Self-Retracting Lanyard Condition

Self Retracting Lanyard – Cable Rope

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix H:

Fall Protection Hardware Inspection Form

Carabiners & Snaphooks

Carabiner **OR** Snaphook (circle one)

Model_____

Serial #_____

Manufacture Date_____

Lot #_____

Purchase Date_____

P = PASS F = FAIL

		Label or Markings	Load Ratings (strength)		Specifications		Inspection			Comments
Date	**Inspector Initials**	Markings	Gate (≥16 kN)	Tensile (≥22.5 kN)	Self-Closing / Locking	Smooth Operation	Main Body	Spine	Gate & Hook-nose	

Labels & Markings – Labels or markings must be intact and legible. All acceptable carabiners and snaphooks must have a strength rating (in kilo-Newton (kN)) engraved/etched into the spine (minimum 16 kN=gate and 22.5 kN=tensile load).

Hardware Specifications– All carabiners and snaphooks must be self-closing and self-locking. The gate and lock should operate smoothly. Gates must fully close and engage nose of hook.

Inspection-Inspect for corrosion, cracks, sharp edges, burrs, bending, distortion, or other deformities. If any defective condition is identified, immediately remove the device from service and destroy.

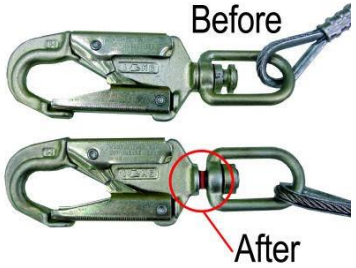
If device has been subjected to fall arrest or impact loading, remove from service and destroy.

If the hardware shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above and must be taken out of service.

Hardware Condition

Snaphook is a connector comprised 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. Snaphooks are required to be self-closing with a self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection.

Compliant connectors are stamped with strength ratings.



Carabiner is a connector generally shaped in a trapezoidal or oval body with a closed gate, or similar arrangement, that may be opened to attach another object and, when released, automatically closes to retain the object.

Appendix I:

Fall Protection Anchor Inspection Form

Anchor #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Anchor Type_____

P = PASS F = FAIL

		Label	**Hardware (if applicable)**		**Mounting Plates**			**Webbing (if applicable)**		**Stitching (if applicable)**	**Cable**	
Date	**Inspector Initials**	Label	Metal Condition	Connection Ring	Rivets	Welds	Connection Points	Main Body	Termination	Termination	Main Body	Termination

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware and Mounting Plates– Inspect for any corrosion, nicks, pitting, burn marks, bends, missing screws, damaged welds, or cracks. All rivets must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
If any portion of the anchor shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the anchor receives any "Fails" or "F's" in the table above, then that anchor must be taken out of service.

Anchor Condition

Cable Sling Anchor

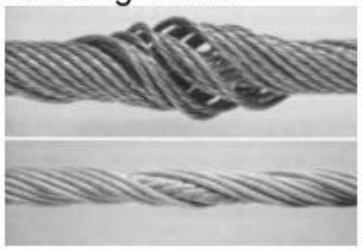
Temper Anchor

Welded Roof Anchor

Cross Arm Strap Anchor

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage


DANGER
HOLE COVER
DO NOT REMOVE


CAUTION
FALL HAZARD
* OPEN PIT *




Fall Protection Program for General Industry

29 CFR 1910.140, subpart I, Personal Fall Protection Systems
29 CFR 1910, subpart D, Walking-Working Surfaces





Velocity Truck Rental & Leasing - City of Industry
2425 Katella Ave.
City of Industry, CA 90601

This Fall Protection Program for General Industry has been developed in accordance with the requirements of Title 29, Sections 1910.140 and 1910.21-30 of the Code of Federal Regulations. I have reviewed this program for completeness and the provisions contained herein will apply to operations at Velocity Truck Rental & Leasing - City of Industry

Signature	Title
Printed Name	Date

TABLE OF CONTENTS

OSHA REGULATIONS

PROGRAM OVERVIEW

Effective January 2017, the Occupational Safety and Health Administration (OSHA) updated the requirements for walking-working surfaces and slip, trip, and fall hazards (29 CFR 1910, subpart D), and provided additional requirements for personal fall protection systems (29 CFR 1910.140, subpart I) for employers in general industry.

In response to the updated requirements, KPA has developed a Fall Protection Program for general industry employers. The program provides accepted practices for walking-working surfaces as required in the 2016 update of 29 CFR 1910 subpart D, and for the implementation of 29 CFR 1910.140, subpart I, Personal Fall Protection Systems.

Falls from heights and falls on the same level are among the leading causes of serious work-related injuries and deaths. The requirements were revised to better protect employees in general industry from these hazards by updating standards and adding training and inspection requirements.

This program should be made available to all employees since walking-working surfaces affect every person, in every department, performing every activity to some degree. Fall protection systems will not affect everyone, however, employees need to be aware of when, and what kind of fall protection system is required in identified areas.

PURPOSE

The purpose of the Fall Protection Program is to provide criteria for the recognition, control and/or elimination of potential fall hazards which includes slips, trips and falls on the same level (walking-working surfaces), and elevated falls at a level of 4 feet or greater that may require the use of fall protection systems.

The program is designed to explain:

- The requirements for performing workplace hazard assessments;
- How to identify the most common fall hazards;
- The appropriate actions to take to prevent slip, trip and fall incidents;
- How to select the appropriate fall protection systems; and
- The options, recommendations and guidance on how to comply with the updated and added requirements of the regulations.

Effective program implementation requires support from all levels of management. The location manager, and/or their designee, is responsible to ensure program requirements are fulfilled. The program encompasses the total workplace, regardless of the number of employees or the number of work shifts. This applies to all facilities and field operations where personnel could be exposed to fall hazards of 4 feet or greater.

- OSHA defines “walking-working surface” as any horizontal or vertical surface on which an employee walks, works, or gains access to a workplace location. Employers are required to ensure walking-working surfaces are kept in a clean and orderly condition in all places of employment and during all work activities.
- “Fall protection” is any device, equipment, or system that prevents an employee from falling from an elevation or minimizes the negative effects of such a fall.

- This Fall Protection Program is not designed for the construction industry. Fall protection in construction applies when working at elevated heights of 6 feet or greater. Requirements for construction can be found at 29 CFR 1926, subpart M.

If feasible, fall hazards must first be controlled by using engineering controls. When engineering controls are not feasible, then administrative controls, personal fall arrest systems (PFAS) and training must be implemented. When using PFAS, employees are to be connected to an anchor point at all times (100% tie-off).

In order to determine if a Fall Protection Program is required or appropriate for a facility, the location manager, or his/her designee, should complete a preliminary fall hazard assessment to identify potential areas or tasks that might require fall protection. The Preliminary Fall Hazard Assessment Form (Appendix A) can be used to document the findings of the assessment. In addition, a third party (Risk Management Consultant) may be used to assist in completing this assessment.

RESPONSIBILITIES

Location manager

The location manager, or his/her designee, is responsible for ensuring the requirements of the Fall Protection Program are fulfilled. Administration of the program will require sufficient knowledge of hazard recognition and fall protection system requirements, and include the following actions:

- Assess all areas of the workplace to identify potential fall hazards;
- Select and provide appropriate fall protection systems and equipment, as needed or required;
- Ensure employees are trained in the proper use of fall protection systems and equipment;
- Enforce the use of selected fall protection systems and equipment;
- Ensure all fall protection systems and equipment are inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis;
- Ensure fall protection systems are installed and/or set up by a qualified or competent person; and
- Ensure fall protection procedures are followed.

Qualified person

“Qualified” describes a person who has a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has the ability to solve or resolve problems relating to fall protection matters.

- The qualified person must have a thorough understanding of the following:
    - Recognition of different types of fall hazards;

- Procedures to minimize fall hazards;
- Correct procedures for installing, inspecting, operating, maintaining and disassembling fall protection systems;
- Correct use of personal fall protection systems and other equipment;
- Use of fall protection systems and equipment, manufacturer limitations, and fall protection standards; and
- The role of employees in fall protection plans (as applicable).

Competent person

"Competent" describes a person who is capable of identifying existing and predictable hazards in any component of a personal fall protection system, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- The competent person must:
  - Have enough experience and knowledge to know when to call a qualified person;
  - Conduct a fall hazard survey and re-evaluate as work progresses;
  - Understand personal fall protection systems, components of the systems, and how they operate;
  - Ensure all personnel working at heights are trained;
  - Perform inspections of personal fall protection systems prior to each use;
  - Ensure the fall protection system is taken "out of service" following impact loading so all components can be inspected;
  - Ensure a rescue plan is in place in the event an employee falls; and
  - Participate in the incident investigation, if one occurs.

Employees

Employees are responsible for the following:

- Attend all appropriate training;
- Inspect fall protection systems and equipment prior to each use in accordance with manufacturer's guidelines and instructions;
  - Equipment that has been subjected to a fall or impact loading must be removed from service until inspected by a certified and qualified fall protection specialist, competent person, qualified professional engineer or the manufacturer.
- Utilize fall protection systems and equipment, as needed or required;
- Wear all required personal protective equipment (PPE);
- Report hazardous conditions or other health and safety concerns to your supervisor immediately;
- Report incidents, or near-miss incidents to your supervisor immediately; and
- Comply with all aspects of this program.

TRAINING

Ensure employees who are exposed to fall hazards, or who use fall protection systems, receive proper training that includes refresher training when necessary.

- **Training must be performed by a qualified person.**
- **Training must be understandable.** The employer must provide information and training to each employee in a manner that the employee understands.
- **Documentation.** Prepare a written certification record which includes the name of the employees trained, the date(s) of training, and the signature of the person who conducted the training.

Fall hazards

Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses fall protection systems. Employers must ensure employees are trained in at least the following topics:

- The nature of the fall hazards in the work area and how to recognize them;
- The procedures to be followed to minimize those hazards;
- How to estimate free fall distance;
- The correct procedures for selecting, installing, inspecting, operating, maintaining, and disassembling the fall protection systems that the employee uses;
- The limits of the fall protection system; and
- The correct use of personal fall protection systems and equipment including, but not limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

Equipment hazards

The employer must train each employee in the proper care, inspection, use and storage of fall protection systems and equipment prior to use.

- **Dock boards.** Employees must be trained to properly place and secure dock boards to prevent unintentional movement.
- **Rope descent system (RDS).** Employees who use a RDS must be trained in the proper rigging and use of the equipment in accordance with 29 CFR 1910.27.
- **Ladders.** Employees must be trained on how to safely use different types of ladders.
    - Fixed ladders. Employers are required to provide fall protection systems on fixed ladders that extend more than 24 feet above a lower level.
        - New fixed ladders over 24 feet must be equipped with a ladder safety system or personal fall protection system (effective November 19, 2018).
        - Existing fixed ladders over 24 feet must be equipped with a cage or well as required by the existing rule, or a ladder safety system or personal fall protection system as required by the final rule.

Retraining

The employer must retrain an employee when there is reason to believe that the employee does not have the understanding and/or skills required to use fall protection systems or equipment safely. Situations requiring retraining include, but are not limited to, the following:

- When changes in the workplace render previous training inadequate or obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training inadequate or obsolete;
- When inadequacies are identified in an employee's knowledge or use of fall protection systems or equipment;
- When the employee performs any task, or uses equipment in an unsafe manner;
- When the employee is involved in an incident, or near-miss incident that relates to slips, trips and falls, or fall protection systems; or
- Any time fall protection equipment or procedures fail.

FALL PROTECTION PROCEDURES

In addition to ensuring walking-working surfaces are maintained in an appropriate condition, the following procedures provide guidance on how to assess slips, trips and falls, and fall-from-height hazards of 4 feet or greater.

Walking-working surfaces

- Inspect walking-working surfaces regularly and maintain surfaces in a safe condition. The Walking-Working Surfaces Inspection Form (Appendix B) can be used to document these inspections.
    - Determine a frequency of inspection that is adequate to identify and address hazards in a timely manner.
    - Perform inspections as determined.
    - Conduct inspections when workplace conditions, circumstances, or events occur that warrant an additional check to ensure walking-working surfaces are safe.
- Ensure all places of employment including passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, sanitary, and if feasible, dry condition.
- Maintain drainage in areas where wet processes are used, and provide dry standing places such as false floors, platforms and mats, if feasible.
- Maintain walking-working surfaces free of sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, ice, and other slip, trip, and fall hazards.
- Correct or repair any hazardous walking-working surface conditions prior to employee use.
    - Guard the hazard to prevent employees from using the walking-working surface if the hazard cannot be immediately corrected.
    - A qualified person must perform or supervise any correction that may affect the structural integrity of a walking-working surface.

- Ensure each walking-working surface can support the maximum intended load for that surface.
- Ensure there is sufficient clearance in aisles, at loading docks, through doorways and wherever turns or passage must be made when using mechanical handling equipment.
- Provide standard guardrails at every stairway or ladderway floor opening in accordance with applicable OSHA requirements (29 CFR 1910.28).
- Provide skylight floor openings/holes with a standard skylight screen or fixed standard railing on exposed sides.

Basic fall protection

- Perform an assessment of the workplace to identify potential slips, trips and falls, and fall from heights hazards.
- Detail the required steps to take to protect employees from fall hazards. The Fall Hazard Assessment Form (Appendix C) can be used to document fall hazards.
- Identify the appropriate fall protection systems and equipment to use when hazards cannot be eliminated.
    - Fall protection systems and equipment must be selected by a qualified person.
- Provide training to personnel exposed to fall hazards that includes:
    - Recognition of fall hazards;
    - Understanding fall protection systems and equipment; and
    - Familiarity and use of personal fall arrest systems, equipment and procedures.
- Ensure that safe access and egress to elevated work areas are provided.
- Consider operational requirements when designing fall protection for elevated heights.
- Document the load rating of anchor points to be used with PFAS, as determined by a qualified person or professional engineer.
- Fall protection is not required on the working side of platforms used at loading racks, loading docks, and teeming platforms when it is not feasible. The working side exception only applies when the employer demonstrates infeasibility and:
    - The work operation is in process;
    - The employer limits access to the platform to “authorized” employees; and
    - The employer trains authorized employees to recognize fall hazards and understand the procedures to minimize them

EXCEPTIONS

There are four exceptions from the 4 foot trigger height to use fall protection:

1. **Over dangerous equipment**
    - When employees are less than 4 feet above dangerous equipment, they must be protected from falling into or onto the equipment.
2. **On fixed ladders**

- Employers are required to provide fall protection to those fixed ladders that extend more than 24 feet above a lower level.

3. **Use of motorized equipment on dock boards**
    - Employees often use motorized equipment to move large and/or heavy material across dock boards. This equipment may not fit on a dock board that has guardrails or handrails.
4. **Around repair, service, and assembly pits**
    - Employers do not have to provide fall protection systems for service, repair, or assembly pits that are less than 10 feet deep, provided the employer:
        - Limits access within 6 feet of the pit edge to trained, authorized employees;
        - Applies floor markings or warning lines and stanchions at least 6 feet from the pit edge; and
        - Posts visible caution signs that state “Caution—Fall Hazard-Open Pit,” or similar verbiage.
    - When two or more pits in a common area are not more than 15 feet apart, the employer may comply by placing contrasting floor markings at least 6 feet from the pit edge around the entire area around the pits.

PROTECTION FROM FALLING OBJECTS

The requirements listed in the walking-working surface regulation are not only designed to protect employees from falls on the same level and falls from heights, but also to protect employees from having objects fall on them.

- Protect employees from falling objects by implementing one or more of the following:
    - Erect toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;
    - Erect canopy structures or keep potential falling objects away from an edge, hole or surface opening; or
    - Guard/barricade the area where objects could fall and minimize or prohibit employee access.
- Install toeboards at the walking surface level of a guardrail system. Toeboards are designed to prevent materials, tools, and equipment from falling to a lower level, and to protect employees from falling objects. Ensure toeboards used for falling object protection:
    - Are erected along the exposed edge of the overhead walking-working surface;
    - Have a minimum vertical height of 3.5 inches as measured from the top edge of the toeboard to the level of the walking-working surface;
    - Have a minimum height of 2.5 inches when used around vehicle repair, service, or assembly pits;
        - Toeboards may be omitted around vehicle repair, service, or assembly pits when the toeboard would prevent access to a vehicle that is over the pit.

- Do not have more than a ¼ inch opening above the walking-working surface;
- Are solid or do not have any opening that exceeds 1 inch; and
- Are capable of withstanding, without failure, a force of at least 50 lbs in any downward or outward direction.

Ensure there is a good housekeeping program in place to identify and remove hazards, and provide employees a safe place to work. When materials and debris are properly cleaned up and tools are put in proper storage areas, the risk of injury from falling objects can be greatly reduced.

REQUIREMENTS OF THE FINAL RULE

Inspections of walking-working surfaces

Employers are required to perform inspections of walking-working surfaces on a regular basis, and as necessary, to identify hazards and address them in a timely manner. Although it may seem the rule will have no impact on your facility, consider all areas or tasks that might be covered by the regulations.

Common fall hazards may include, but are not limited to the following:

Floor holes	Mezzanines	Vehicle repair, service & assembly pits
Floor openings	Overhead storage areas	Work performed on high-profile vehicles: sprinter vans, commercial trucks, RVs, railcars
Wall openings	Unprotected elevations/platforms	Parking lots/parking areas
Aisles/walkways	Work over dangerous equipment	Scaffolding
Stairways	Work over chemical tanks	Aerial lifts
Open sides & edges (leading edge)	Roof openings	Excavations
Dock boards	Skylights	Grain bins
Loading docks	Ladders	Step bolts

Fall protection systems

Employers are no longer required to make guardrails the primary means of fall protection, they may now choose from a range of accepted fall protection systems and equipment appropriate for the situation. Following are suggested fall protection options:

- **Covers.** Protect employees from hazards associated with holes by the use of covers. A hole is a gap or void 2 inches or more in a floor, roof, deck, or other walking/working surface that presents hazards due to:
    - Employees falling through holes;
    - The hole's design creating a trip hazard; or
    - Objects falling through the hole and injuring employees below.
    - Covers for permanent holes are typically built for a specific purpose (i.e. permanent access points, manhole covers, and trap doors) and are only effective when they are properly designed and secured in place.
    - Effective hole covers are:

- Large enough to provide appropriate overlap to prevent employees from falling through;
- Strong enough to support at least twice the anticipated weight imposed by the heaviest load;
- Left in place over the hole until access is needed;
- Secured and do not create trip hazards; and
- Marked clearly as “Hole Cover” or “Open Hole”

- **Guardrail System.** Guardrail systems are installed on open sides of elevated locations. The guardrail consists of a vertical barrier with a top-rail, mid-rail, (toeboard as appropriate), and intermediate vertical rails erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.
  - Guardrails are common for storage areas on elevated levels, mezzanines and at loading docks.
  - Guardrail systems must meet the following criteria:
    - Top-rails must be installed 42 inches (+/- 3 inches) above the walking/working surface and be capable of withstanding a minimum force of 200 lbs in any outward or downward direction within 2 inches of the top edge;
      - The top-rail must not deflect to a height of less than 39 inches above the walking-working surface when the test load is applied.
    - Mid-rails must be installed 21 inches above the walking/working surface and be capable of withstanding a minimum force of 150 lbs in any outward or downward direction;
    - Posts must be spaced not more than 8 feet apart on centers;
    - There are no openings more than 19 inches wide in any guardrail system;
    - Do not use plastic or steel banding as top-rail;
    - Provide top-rails and mid-rails of at least ¼ inch thickness or diameter, and smoothly surfaced to prevent cuts and punctures; and
    - Add high-visibility flags to the top-rail when using wire rope for top-rails.
  - Erect guardrails on all sides around holes or floor openings.
  - Install a gate or offset guardrails when they are used around holes that provide access, such as ladder ways, so that a person cannot walk directly into the floor opening.
  - Place a chain, gate or removable guardrail across the access point to hoisting operations when operations are not taking place.
  - Provide guardrail systems or other fall protection systems at **all** locations above dangerous equipment, even if not 4 feet or greater.

- Provide guardrails at all wall openings where the outside bottom edge of the 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.
- Erect guardrail systems on all unprotected sides or edges of ramps and runways.

- **Personal Fall Protection System.** A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.
  - **Personal Fall Arrest System (PFAS).** A personal system used to prevent a falling employee from contacting a lower level. A PFAS consists of a full-body harness, anchorage, connector, and may include a lanyard, deceleration device, lifeline, or suitable combination of these.
    - Consider using a PFAS when performing work on elevated surfaces where guardrails are not a convenient or practical solution, such as on top of high profile vehicles.
    - Requirements for a PFAS include training on inspection, use and proper maintenance and storage.
    - Inspect all fall protection components for wear, damage, and deterioration prior to each use.
    - Remove damaged or defected equipment from service immediately
    - Use only full body harnesses, shock-absorbing lanyards, horizontal lifelines, self-retracting lifelines and anchorage points which meet the following criteria:
      - Limit the maximum arresting force on an employee to 1,800 lbs;
      - Prevent the employee from free falling more than 6 feet or from contacting any lower level;
      - Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet;
      - Are strong enough to withstand twice the potential impact energy of the employee free falling a distance of 6 feet; and
      - Sustain the employee within the system/strap configuration without making contact with the employee's neck and chin area.
    - All components of a personal fall arrest system meet the specifications of 29 CFR 1910.140, Personal Fall Protection Systems.
    - Full body harness. Harness that consists of straps that secure around the torso of the employee in a manner to distribute the force of a fall over the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
    - Connector. A device which is used to couple (connect) parts of the PFAS. Three common connectors include:

- Snap hook. Automatic-locking with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or suffering permanent deformation
    - Non-locking snap hook with a self-closing gate that remains closed, but not locked, is prohibited
- D-ring. A metal loop with a spring-hinged side that can quickly and reversibly connect components.
    - Attachment of the D-ring to the body harness must be located in the center of the wearer's back near shoulder level
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or incurring permanent deformation
- Carabiner. A connector usually oval shaped body with a closed gate that may be opened to attach another object, and when released closes automatically.
    - Must be capable of sustaining a minimum tensile load of 5000 lbs
    - Must be proof-tested to a minimum tensile loaf of 3600 lbs without cracking, breaking, or incurring permanent deformation

- Anchor point. Secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be:
    - Capable of supporting at least 5,000 lbs (3,600 lbs if engineered/ certified by a qualified person) per person; and
    - Independent of any anchor point being used to support or suspend platforms.
- Lanyard. A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body harness or body belt to a deceleration device, lifeline, or anchorage.
    - Lanyards must be compatible with all connectors used.
    - Lanyards must be protected from being cut, abraded, melted, or otherwise damaged.
- Lifeline. A flexible line for connection to an anchorage at one end so as to hang vertically (vertical lifeline), or for connection to anchorages at both ends so as to stretch horizontally (horizontal lifeline), and serves as a means for connecting other components of the system to the anchorage.

- Provide separate vertical lifelines for each employee using a vertical lifeline.
- A self-retracting lifeline/lanyard is a device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Self-retracting lifelines and lanyards which limit free fall to 2 feet or less must be capable of sustaining a minimum tensile load of 3,000 lbs in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall to 2 feet or less, rip-stitch, and other shock-absorbing lanyards must be capable of sustaining a minimum tensile load of 5,000 lbs in the fully extended position.

▪ Deceleration device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lanyard, etc. that serves to dissipate energy during a fall.

▪ Train employees on how to properly fit (including weight limitations) and wear a full-body harness, identify proper tie-off techniques and connections, and determine suitable anchorage points.

▪ Instruct employees to rig fall protection to prevent a free fall more than 4 feet and not to contact any lower level.

▪ Do not tie off to guardrail systems or hoists.

▪ Require employees to remain tied off 100% of the time when at or above 4 feet, or if less than 4 feet over hazardous equipment.

▪ Remove from service any component of a personal fall protection system that has been subjected to impact loading.

- Do not reuse equipment until inspected by a qualified or competent person, professional engineer, or manufacturer and determined to be undamaged.
- Most equipment is not intended for reuse following impact loading.

▪ ***Use of a body belt in a PFAS is prohibited!***

o **Rescue.** When personal fall arrest systems are used, special consideration must be given to promptly rescuing an employee should a fall occur. The Fall Protection Rescue Assessment (Appendix D) can be used to document this assessment.

▪ Evaluate the availability of rescue personnel, ladders, or other rescue equipment for situations where an employee cannot perform self-rescue.

▪ Post emergency contact information if relying on outside organizations for rescue.

▪ Employees can perform self-rescue after the fall has arrested if devices have descent capability.

- **Travel Restraint System.** A combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support (full-body harness or body belt) used to eliminate the possibility of an employee going over the unprotected edge or side of a walking-working surface.
    - Use in areas where sufficient anchor points for PFAS are not available.
    - Requirements for snap hooks, D-rings and other connectors are the same as listed in the PFAS section of this program.
    - This system does not support the employee's weight but it is used to prevent employees from reaching the fall hazard, such as an unprotected side or edge.
- **Positioning System.** A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and perform work with both hands free.
    - A system designed to hold and sustain an employee at a work location and limit the free fall to 2 feet or less.

- **Ladder Safety System.** A system or device attached to a fixed ladder designed to eliminate or reduce the possibility of an employee falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and full body harness or body belt.
    - Cages and wells are not considered ladder safety systems.
- **Safety Net System.** A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling employees before they make contact with a lower level or obstruction. Safety nets can be used where the use of ladders, scaffolds, catch platforms, temporary floors, or safety lines are impractical.
    - Install safety nets as close as possible under the walking/working surface on which employees are working, but never more than 30 feet below this level.
    - Safety nets must extend outward horizontally from the outermost projection as follows:
        - 8 feet for a vertical drop of up to 5 feet
        - 10 feet for a vertical drop between 5 and 10 feet
        - 13 feet for a vertical drop more than 10 feet but not to exceed 30 feet
    - Install safety nets with enough clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
    - Remove all materials, scrap, equipment, and tools which have fallen into the net as soon as possible, but at least before the next work shift.
    - Safety nets must be inspected at least once a week for wear, damage, and other deterioration, and after any occurrence which could affect the integrity of the safety net system. Defective components shall be removed from service and defective or damaged nets are not to be used.

Scaffolding requirements

The existing scaffolding standards for general industry will be replaced with those currently in use for construction (29 CFR 1926.450).

Fixed ladders

The following requirements apply to fixed ladders that extend more than 24 feet above a lower level.

- **Existing fixed ladders.** Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **New fixed ladders.** Each fixed ladder installed on and after November 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.
- **Replacement.** When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **Final deadline.** On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system, or a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section, the employer must ensure:

- The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections; and
- The ladder has rest platforms provided at maximum intervals of 150 feet.

The employer must ensure ladder sections having a cage or well:

- Are offset from adjacent sections; and
- Have landing platforms provided at maximum intervals of 50 feet.

The employer may use a cage or well in combination with a personal fall arrest system or ladder safety system provided that the cage or well does not interfere with the operation of the system.

Rope descent systems (RDS) and anchorage certification

- RDS consists of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seat board. These systems are commonly used to perform elevated work such as window washing.
- RDS requires building owners to provide, and employers to obtain, proof that permanent RDS anchorages have been properly inspected, tested, and maintained, and are able to support 5,000 lbs per attached employee. RDS are prohibited at heights of 300 feet above grade unless all other systems are proven to be impractical or pose a greater hazard.

Phase-out of the “Qualified Climber” exception in outdoor advertising

Although this requirement will not apply to many employers, it is important to understand how the regulations might apply.

- The final rule requires all employees to comply with ladder safety and fall protection requirements when climbing fixed ladders on billboards over 24 feet tall.

- Employers have 2 years to install systems that comply with either the existing standard (i.e., cages and wells) or the new ladder safety and personal fall protection standards.

INSPECTIONS

Inspection of fall protection systems

- PFAS must be inspected prior to each use for wear, damage, defects and other deterioration.
    - Remove defective components from service immediately and either destroy the equipment or label it “out of service” or “damaged.”
- A qualified or competent person must inspect each PFAS at least annually, or more often if recommended by the manufacturer.
    - Document the date of each inspection.
- Use the following criteria to help maintain equipment in good working condition:
    - Full Body Harness. The Fall Protection Full Body Harness Inspection Form (Appendix E) can be used to document these inspections.
        - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
        - Inspect harness for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside and outside of the body pad.
        - Examine all nylon webbing to ensure that there are no burn marks which could weaken the material.
        - Verify there are no torn, frayed, or broken fibers; pulled stitches; or frayed edges anywhere on the harness.
        - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame.
        - The tongue or billet of the belts receive heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion.
            - Never punch additional holes in the harness.
        - Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.
        - Examine the condition of D-ring rivets and D-ring metal wear pads (if any). Discolored, pitted or cracked rivets might indicate chemical corrosion.
        - Inspect friction buckles for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

- Inspect the sliding bar buckles and buckle frames for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.
- Store harnesses in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
- Remove harnesses that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.

- Lanyards/Shock-Absorbing Lanyards. The Fall Protection Lanyard Inspection Form (Appendix F) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Visually inspect shock absorber (if present) for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
  - Inspect the shrink-wrapped casing of the shock absorbing pack to ensure that it has not been expanded or damaged. Impact indicators must not show expansion.
  - Inspect webbing for cuts, holes, frays, discoloration, paint contamination, heat and excessive wear damage. Termination is the webbing end which meets the connectors.
  - Inspect cable for bird caged wire or cable separation.
  - Inspect connectors for corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
  - Inspect the snap hooks for distortions in the hook, locks, and eye.
  - Check carabiner for excessive wear, distortion, and lock operation.
  - Ensure that all locking mechanisms seat and lock properly.
  - Store lanyards in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
  - Remove lanyards that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.
- Self-Retracting Lanyards/Lifelines. The Fall Protection Self-Retracting Lanyard Inspection Form (Appendix G) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Inspect the body to ensure there is no physical damage.
  - Make sure that all nuts and rivets are tight.
  - Make sure that the entire length of the nylon strap/wire rope retracts freely, and is free from cuts, burns, abrasions, kinks, knots, broken stitches/strands and excessive wear.

- Test the unit by pulling sharply on the lanyard/ lifeline to verify thatthe locking mechanism is operating correctly.
- Conduct and document a monthly inspection of all self-retracting lanyards/lifelines by a qualified or competent person.
- Return the device to the manufacturer for service per manufacturer's specifications (usually annually).
- Inspect visually and functionally after a fall or impact loading.

- Snap Hooks and Carabiners (Hardware). The Fall Protection Hardware Inspection Form (Appendix H) can be used to document these inspections.
  - Ensure the load rating is either forged or etched into the spine of the carabiner or snap hook and is legible.
  - Verify:
    - There are no hook and eye distortions
    - There are no cracks or pitted surfaces
    - The keeper latch is not bent, distorted, or obstructed
    - The keeper latch seats into the nose without binding
    - The keeper spring securely closes the keeper latch
  - Test the locking mechanism to verify that the keeper latch locks properly.
  - All snap hooks involved in a fall should be destroyed.
- Anchor Points. The Fall Protection Anchor Inspection Form (Appendix I) can be used to document these inspections.
  - A qualified or competent person must perform an annual inspection of all tie-off and anchor points.
  - Maintain documentation of anchorage load ratings and inspections.
  - Inspect anchorages for integrity and attachment to solid surface prior to use.
- Horizontal Lifelines
  - Horizontal lifelines must be designed, installed, and used under the supervision of a qualified person.
  - Lifelines are part of a complete personal fall arrest system and must maintain a safety factor of at least 2.
  - Inspect the structural integrity of line and anchors before each use.
  - A qualified or competent person will complete and document an annual inspection.

STORAGE AND MAINTENANCE

Maintenance and storage of fall protection equipment

To ensure that fall protection systems are ready and able to perform as designed, a preventative maintenance schedule should be implemented.

Following are basic requirements of a maintenance program, however, you should follow manufacturer's recommendations for storage and maintenance, if provided.

- Documented inspections must be performed annually by a qualified or competent person, or more often if required by the manufacturer.
- Inspect all fall protection equipment prior to each use and verify the last documented inspection date.
- Store personal fall arrest equipment in a cool, dry, clean location and in a manner that maintains its shape. (It is preferable to hang harnesses)
    - Never store PFAS equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow).
    - Never store equipment in areas with excessive heat, chemicals, fumes, corrosive elements or moisture.
    - Consider possible exposure to radiation, electrical conductivity, and chemical effects when storing equipment
- Maintain a PFAS in a clean and dry condition so it is ready for use.
    - Clean with a mild, non-abrasive soap and hang to dry.
    - Never force dry or use strong detergents in cleaning.
- Never use equipment for any purpose than its intended use (personal fall arrest).
- Once a PFAS is exposed to a fall or impact loading, label "out of service" and do not use until inspected by a qualified or competent person, or returned to the manufacturer for inspection.
    - Equipment that is "out of service," damaged, or in need of maintenance will be tagged as unusable and will not be stored in the same area as serviceable equipment.
    - Components of a PFAS may have to be destroyed after impact loading.

EFFECTIVE DATES

Most of the requirements of the final rule became effective on January 17, 2017, however, some provisions of the rule have delayed effective dates:

By…	Employers must ensure that…
November 20, 2017	Anchorages for rope descent systems must be inspected and certified, as applicable.
November 19, 2018	New fixed ladders over 24' tall must be equipped with ladder safety systems or personal fall protection systems.
	Existing fixed ladders over 24' tall must be equipped with a cage or well per the existing rule, or a ladder safety system or personal fall protection system per the final rule.
November 18, 2036 (20 years after initial publication)	All fixed ladders over 24' tall are equipped with ladder safety system or personal fall protection systems.

DEFINITIONS

Anchorage - A secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt – A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness - Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person – A person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector – A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.

Deceleration device - Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip-stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber - A device that limits shock-load forces on the body.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system - A system specifically designed to secure, suspend, or assist in retrieving an employee in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall - The act of falling before a personal fall 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 belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

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

Lanyard - A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading edge - The edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which

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

Opening - A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system - A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system - A body belt or 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.

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.

Retractable lifeline - A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope grab - A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

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

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

Snap-hook - A connector comprised 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 are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard - A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface - Any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system - A 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 guardrail, body belt, or safety net systems to protect employees in the area.

Work area - That portion of a walking/working surface where job duties are being.

APPENDICES

Appendix A: Preliminary Fall Hazard Assessment

Appendix B: Walking-Working Surfaces Inspection Form

Appendix C: Fall Hazard Assessment Form

Appendix D: Fall Protection Rescue Assessment

Appendix E: FP Full Body Harness Inspection Form

Appendix F: FP Lanyard Inspection Form

Appendix G: FP Self-Retracting Lanyard Inspection Form

Appendix H: FP Hardware Inspection Form

Appendix I: FP Anchor Inspection

Appendix J: Hole Cover Sign-Example

Appendix K: Open Pit Sign-Example

Appendix A Preliminary Fall Hazard Assessment

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	

Section 1: Fall Hazard Identification (See page 2 for additional guidance) ***Will employees be operating in close proximity to any of the following:***		
1. Are there unprotected wall / floor openings that are 4′ or more above a lower level?	☐ Yes	☐ No
2. Are there unprotected edges (4′ above lower level) or leading edges (6′ above lower level)?	☐ Yes	☐ No
3. Are there open holes in floors (i.e. floor drains, manholes)?	☐ Yes	☐ No
4. Are there openings in roofs that could allow a fall to a lower level (i.e. roof hatches, ladder access, skylights)?	☐ Yes	☐ No
5. Is work being performed on roofs of high-profile vehicles or rail cars that are 4′ or higher?	☐ Yes	☐ No
6. Are there elevated storage areas with unprotected sides or edges (i.e. mezzanines)?	☐ Yes	☐ No
7. Are employees exposed to open repair, service or assembly pits (lube)?	☐ Yes	☐ No
8. Are employees performing work within 15′ of the edge of the facility roof?	☐ Yes	☐ No
9. Are employees climbing fixed ladders over 24′ in height?	☐ Yes	☐ No
10. Are employees exposed to excavations, cliffs, or open pits over 4′ deep? (Construction is 6′ deep)	☐ Yes	☐ No
11. Are employees using aerial lifts such as manlifts, boom lifts, spider lifts, vertical personnel lifts, scissor lifts, bucket trucks, cherry pickers?	☐ Yes	☐ No
12. Are there any other unprotected elevated work surfaces that are 4′ or more above a lower level, or 6′ or more above a lower level in construction?	☐ Yes	☐ No

Section 2: Identification of Requirement for Fall Protection	
For facilities in general industry, the trigger height for fall protection systems is 4′ or more above a lower level.	
For facilities or activities in construction, the trigger height for fall protection systems is 6′ or more above a lower level.	
Employees working or operating above dangerous equipment (regardless of height) must be protected from falling into the equipment.	
If you have answered "No" to all questions in Section 1, then no fall hazards have been identified and no further action is necessary at this time.	☐
If you only answered "Yes" to question #7, see page 2 for requirements to proceed.	☐
If you have answered "Yes" to other questions in Section 1, then please review and select an option in Section 3.	☐

Section 3: Fall Protection Control	
The identified fall hazards at this location will be managed by installing engineering controls that comply with 29 CFR 1910 Subpart D (general industry) or 29 CFR 1926 Subpart M (construction). Additional fall protection systems, procedures, or PPE will not be necessary at this time.	☐
The identified fall hazards at this location will be managed by the installation and use of fall protection systems that may include a full body harness, lanyard, self-retracting lanyard, fall restraint system, etc. A further assessment will be conducted and fall protection systems, procedures and equipment will be installed.	☐

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Section 1: Additional Guidance

1. **Unprotected Wall/Floor Opening** - A gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level. This could include an opening in guardrails on a mezzanine, an open storage landing, etc.

2. **Unprotected edges** - Any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level. This could include roofs, mezzanines, landings, etc.
   Unprotected leading edges – (construction tern) - Leading edge means the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.

3. **Open holes in floors** - A gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension. This could include open drain traps.

4. **Openings in roofs or skylights** - A gap or open space in a roof or skylight that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

5. **Unprotected roofs of high-profile vehicles** – This would include a roof used as a walking working surface at a height of 4 feet or greater. High-profile vehicles could include: tractors, trailers, semi trucks, RVs, vans, buses, rail cars, etc.

6. **Storage areas without side or edge protection** – This could include unprotected edges/sides of mezzanines, areas above offices, or landings. If an employee steps off a ladder to handle materials and the area is 4 feet or more above a lower level then a fall protection system is necessary.

7. **Open repair, service or assembly pits** – This would be an opening in the floor designed for employee entrance in order to perform work. This could include lube pits or transmission repair pits and alignment pits. (This would not include an excavation or trench)

1910.28(b)(8) *Repair pits, service pits, and assembly pits less than 10′ in depth*. The use of a fall protection system is not required for a repair pit, service pit, or assembly pit that is less than 10′ deep, provided the employer:

1) Limits access within 6′ of the edge of the pit to authorized employees trained in accordance with § 1910.30;

2) Applies floor markings at least 6′ from the edge of the pit in colors that contrast with the surrounding area; or places a warning line at least 6′ from the edge of the pit as well as stanchions that are capable of resisting, without tipping over, a force of at least 16 lbs applied horizontally against the stanchion at a height of 30″; or places a combination of floor markings and warning lines at least 6′ from the edge of the pit. When two or more pits in a common area are not more than 15′ apart, the employer may comply by placing contrasting floor markings at least 6′ from the pit edge around the entire area of the pits; and

3) Posts readily visible caution signs that meet the requirements of § 1910.145 and state "Caution-Open Pit."

8. **Facility roof** – This refers to the roof of the facility. If employees are going to be with 15 feet of the roof edge, then a fall protection system is required. Work an a HVAC system, for example.

9. **Fixed ladders over 24 feet in height** – A fixed ladder is one which is permanently attached, such as a ladder to access the roof of the building.

10. **Excavation** - The removal of earth, usually to allow the construction of a foundation, basement or to perform pipe work. If the fall distance is greater than 6 feet then a fall protection system must be installed.

11. **Aerial lifts** – This could include articulated booms, telescopic booms, forklift attachment cages designed to lift an employee, scissor lifts, etc.

Comments:

Appendix B: Walking-Working Surfaces Inspection Form
(Slip, Trip & Fall Hazards)

Company Name: Address:	Specific Location: Assessor/s:	
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

WALKING-WORKING SURFACES			
Surface Conditions:	**YES**	**NO**	**NA**
1. Floors are kept clean, orderly, sanitary and dry (except where wet processes are necessary).	☐	☐	☐
2. Where wet floors or processes are necessary, proper drainage and/or raised surfaces, dry standing platforms, mats, or other non-slip material are provided.	☐	☐	☐
3. Floors are free of leaks, spills, water, snow, ice and other slip hazards.	☐	☐	☐
4. Floors are free from protruding nails, loose boards, cracked tiles, and other tripping hazards.	☐	☐	☐
5. Holes are repaired or covered.	☐	☐	☐
6. Surfaces in poor condition are repaired or guarded by visible barricades.	☐	☐	☐
7. Carpeting and other floor mats and trim, lay flat and are securely fixed.	☐	☐	☐
8. Entryways have absorbent mats to prevent slips due to wet conditions.	☐	☐	☐
9. Changes in direction or elevation are clearly marked.	☐	☐	☐
10. Adequate headroom is provided for the entire length of all walkways.	☐	☐	☐
11. There is adequate clearance in aisles, through doorways, and at loading docks.	☐	☐	☐
12. Standard guardrails are provided at every stairway or ladderway floor opening.	☐	☐	☐
13. Floors can support the maximum intended load.	☐	☐	☐
14. Parking lots and sidewalks are free of broken pavement, potholes, gaps and cracks.	☐	☐	☐
15.	☐	☐	☐
Housekeeping Hazards:	**YES**	**NO**	**NA**
16. Work areas, aisles, and walkways are free of debris or clutter.	☐	☐	☐
17. Walkways are free of cords and wiring.	☐	☐	☐
18. Exit and entrances are unobstructed at all times.	☐	☐	☐
19. Emergency exits are clearly marked.	☐	☐	☐
20. Landings and stairways are free of debris and storage.			
21. Containers are readily available for the disposal of trash.	☐	☐	☐
22. Equipment and materials are cleaned up and stored when not in use.	☐	☐	☐
23. All spilled materials are cleaned up immediately.	☐	☐	☐
24. There are adequate supplies for clean-up, barricading, and posting wet-floor signs.	☐	☐	☐
25. Employees know where housekeeping materials are located and how to use them.	☐	☐	☐
26. Employees are trained to clean up any spills promptly and to notify others of the spill.	☐	☐	☐
27.	☐	☐	☐
Stairs, Ramps, and Guardrails:	**YES**	**NO**	**NA**
28. Changes in elevation are clearly identified.	☐	☐	☐

29. For elevation changes greater than 19 inches, either a ramp or stairs are used.	☐	☐	☐
30. Walking surfaces of ramps contrast visually and materially from the surrounding floor.	☐	☐	☐
31. Ramps and stairs have slip-resistant surfaces.	☐	☐	☐
32. Stair riser height and tread depth is uniform.	☐	☐	☐
33. Handrails are present if stairs have one or more risers.	☐	☐	☐
34. On stairways that are less than 44 inches wide that are enclosed on both sides, at least one handrail is present.	☐	☐	☐
35. On stairways that are less than 44 inches wide that and are open on one side, a stair rail or guard is present on the open side.	☐	☐	☐
36. On stairways that are wider than 44 inches, handrails are present on both sides.	☐	☐	☐
37. Handrails on stairs run the entire length of stairway and extend past the top and bottom steps.	☐	☐	☐
38. Handrails are tight, and at the proper level (between 30-38" high).	☐	☐	☐
39. Adequate lighting is provided in stairwells and landings.	☐	☐	☐
40. Guardrails are provided wherever walking surfaces are elevated more than 48 inches above the floor.	☐	☐	☐
41. Doors to stairways open onto stairway landings, not directly onto a step.	☐	☐	☐
42.	☐	☐	☐
Inspections and Administrative Controls:	**YES**	**NO**	**NA**
43. An inspection program/schedule for walking-working surfaces has been established.	☐	☐	☐
44. Employees are trained in slip, trip and fall hazard identification and prevention.	☐	☐	☐
45. A building inspection is performed to assure all work areas are well-lit.	☐	☐	☐
46.	☐	☐	☐
47.	☐	☐	☐

REQUIRED ACTIONS / RECOMMENDATIONS	
Hazard (question #)	

ADDITIONAL COMMENTS

SIGNATURE OF ASSESSOR		
* ***File a copy of this inspection report in your KPA Yellow Box for future reference.***		
Name:	Signature:	
Title:	Date:	Time:

Appendix C: Fall Hazard Assessment Form

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

FALL HAZARD ASSESSMENT CHECKLIST		
1. If industry classification is general, is the fall distance over 4 feet?	☐ Yes	☐ No
2. If industry classification is construction, is the fall distance over 6 feet?	☐ Yes	☐ No
3. Have slipping and tripping hazards been removed or controlled?	☐ Yes	☐ No
4. Can an employee enter the area without restriction and perform work?	☐ Yes	☐ No
5. Will employees be working over dangerous equipment?	☐ Yes	☐ No
6. Can conventional Fall Protection Systems be used? (i.e. guardrails, safety nets, or PFAS)	☐ Yes	☐ No
7. Are fall prevention systems such as cages, guardrails, toeboards, manlifts in place?	☐ Yes	☐ No
8. Is this area an open repair, service or assembly pit where the fall distance is less than 10 feet?	☐ Yes	☐ No
9. Have visual warnings of fall hazards been installed?	☐ Yes	☐ No
10. Can the distance a worker could fall be reduced by installing platforms, nets, etc.?	☐ Yes	☐ No
11. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ Yes	☐ No
12. Are there any falling equipment or tools hazards for the area below the working area?	☐ Yes	☐ No
13. Does this area have additional recognized hazards such as chemical sprays or hot work?	☐ Yes	☐ No
14. Is the space designated as a Permit Required Confined Space?	☐ Yes	☐ No

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

- *Potential environmental conditions that could impact safety:*

Initials	Condition	Remarks/Recommendations

- *Possible required structural alterations:*

Initials	Alteration	Remarks/Recommendations

- *Possible task modification that may be required:*

Initials	Task	Remarks/Recommendations

- *Breakdown of vertical and horizontal movement: (sketch out work task):*

FALL PROTECTION SYSTEM

- *Best Recommended Form of Fall Protection System Based on Above Conditions:*

Initial	Equipment	Remarks/Recommendations

1. Will Recommended System Have the Capability to Support or Arrest 310lbs?	☐ **Yes**	☐ **No**

- *Training Requirements:*

Initial	Requirement	Remarks/Recommendations

- *Additional Personal Protective Equipment Required:*

Initial	Requirement	Remarks/Recommendations

☐ **Approved**

AUTHORIZATION

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Fall Hazard Assessment Checklist Reference	
Question	Program Reference
If you have answered "Yes" to any of questions 1-4	"Fall Protection Procedures" - Page 7
If you have answered "Yes" to question 5	"Exceptions" - Page 8
If you have answered "No" to question 6	"Fall Protection Plans" – Page 14
If you have answered "No" to question 7	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 8 or "No" to question 9	"Exceptions" - Page 8
If you have answered "Yes" to question 10 or "No" to question 11	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 12	"Protection From Falling Objects" - Page 9
If you have answered "Yes" to questions 13 or 14	Those additional hazards will need to be taken into consideration when selecting the best form of fall protection system

Appendix D: Fall Protection Rescue Assessment

Company Name: Address:	Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction

Contacts: (Please list in notification priority)

Onsite Rescue Team	*Phone Number*	*24 Hour Emergency Phone Number*	*Shift Number*
Other Emergency Contacts	*Phone Number*	*24 Hour Emergency Phone Number*	

Arranged Emergency Responding Agencies: ☐ **N/A**

Agency	*Phone Number*	*Contact Name*

Local First Aid Service:

Rescue Factors:

Initials	*Arresting Area (Height)*	*Remarks/ Recommendations*
Initials	*Rescue Obstructions or Hazards*	*Remarks/ Recommendations*

Rescue Equipment:

Equipment	*Location of Equipment*
☐ Ladder	
☐ Aerial Lift	
☐ Rescue Rope	
☐ Scaffold	
☐ Crane	
☐ Rescue Pole	
☐ RSQ	
☐ Life Jacket/Ring	
☐ First Aid Supplies	
☐	

Rescue Response Procedure:
Description of rescue process: 1) Notify rescue team 2) Make medical assessment 3) Determine if emergency services need to be notified 4) If possible, have employee perform self-rescue 5) 6) *Remember that all equipment involved in a fall arrest or impact loading must be removed from service and destroyed.*

Have all members of the Rescue Team been trained in all rescue procedures for this site?	☐ **Yes** ☐ **No**

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Rescue Plan Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Appendix E: Fall Protection Full Body Harness Inspection Form

Harness #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer _____

P = PASS F = FAIL

		Label		Hardware				Webbing				Stitching			
Date	**Inspector Initials**	Label	Impact Indicator	Shoulder Adjustment Buckles	Leg/Waist Buckles	D-Ring	Chest Buckle	Shoulder Straps	Chest Straps	Leg Straps	Back Straps	Shoulder Straps	Chest Straps	Leg Straps	Back Straps

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware – Inspect for any corrosion, nicks, pitting, burn marks, or cracks. All buckle system grommets must be in place without any damage. Mating buckles are flush and not bent.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.

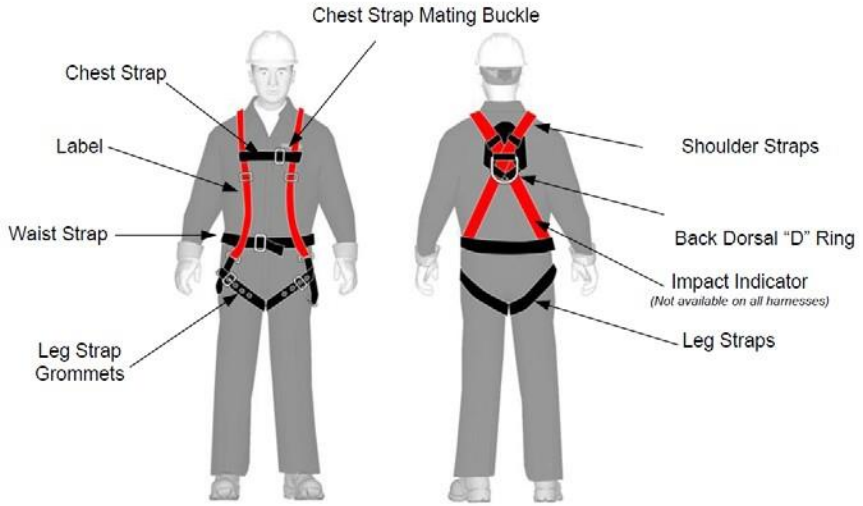
If any portion of the harness shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the harness receives any "Fails" or "F's" in the table above, then that harness must be taken out of service and discarded.

Safety Harness Inspection

Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. **FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS.**

CONDITION

1. Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. **Check for thread separation or rotting both inside and outside of the body pad.**
2. Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. **Check for distortion or sharp edges.**
3. The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. **Check for excessive elongation or distortion.**
4. Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. **Bent rivets will fail under stress.**
5. Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). **Discolored, pitted or cracked rivets may indicate chemical corrosion.**
6. Friction buckles must be inspected for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.
7. Sliding bar buckles must have the buckle frame and sliding bar inspected for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.



Appendix F:

Fall Protection Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

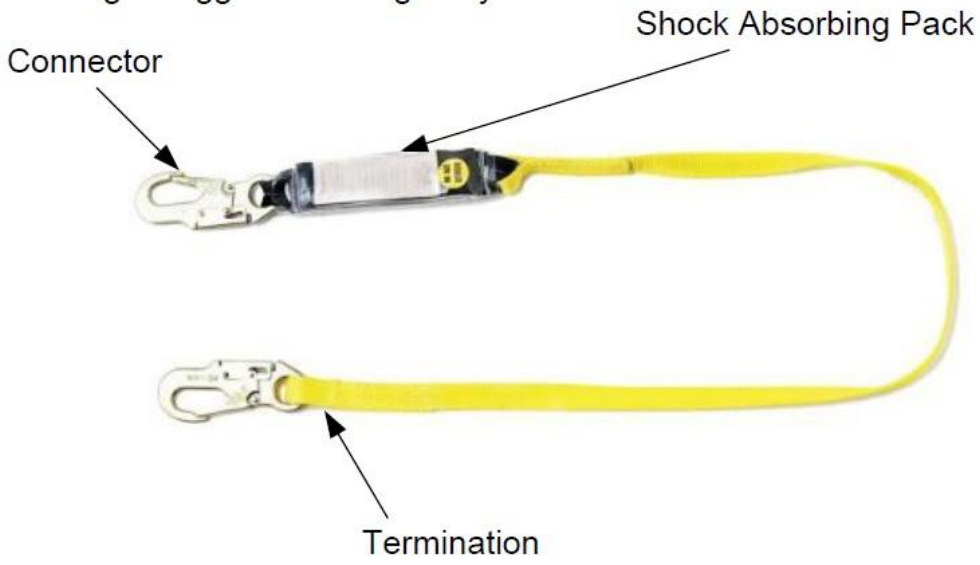
		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Cover	Casing

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors – Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.

If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

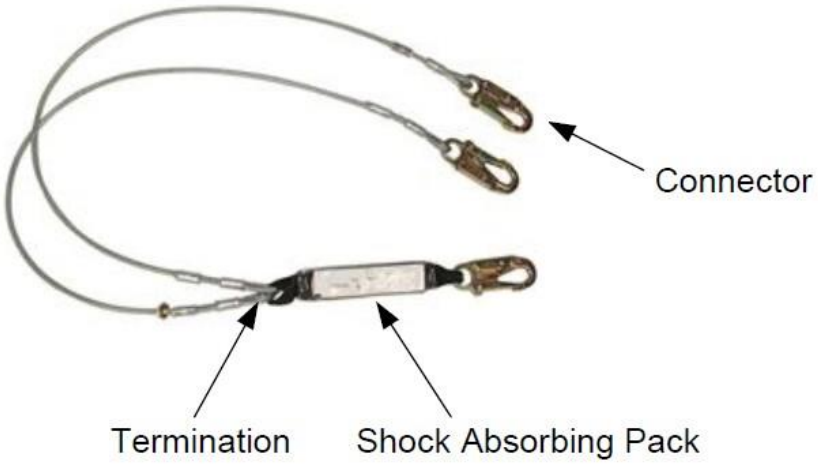
Lanyard Condition

Single Legged Webbing Lanyard

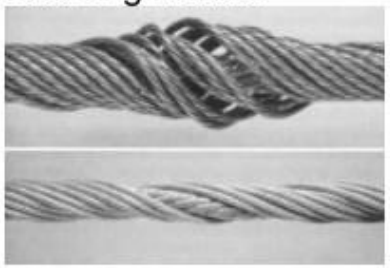


Webbing and Stitching Fraying

Double Legged Wire Rope Lanyard



Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix G: Fall Protection Self-Retracting Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	Housing	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Casing	Attach Point	Hardware

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors– Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.
Housing – Inspect for any signs of cracks, dents, rust, or missing hardware. Attachment point is secure and free of corrosion, dents, cracks, or discoloration.

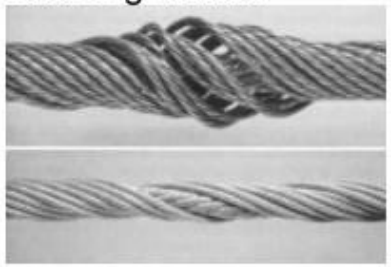
If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

Self-Retracting Lanyard Condition

Self Retracting Lanyard – Cable Rope

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix H:

Fall Protection Hardware Inspection Form

Carabiners & Snaphooks

Carabiner **OR** Snaphook (circle one)

Model_____

Serial #_____

Manufacture Date_____

Lot #_____

Purchase Date_____

P = PASS F = FAIL

		Label or Markings	Load Ratings (strength)		Specifications		Inspection			Comments
Date	**Inspector Initials**	Markings	Gate (≥16 kN)	Tensile (≥22.5 kN)	Self-Closing / Locking	Smooth Operation	Main Body	Spine	Gate & Hook-nose	

Labels & Markings – Labels or markings must be intact and legible. All acceptable carabiners and snaphooks must have a strength rating (in kilo-Newton (kN)) engraved/etched into the spine (minimum 16 kN=gate and 22.5 kN=tensile load).

Hardware Specifications– All carabiners and snaphooks must be self-closing and self-locking. The gate and lock should operate smoothly. Gates must fully close and engage nose of hook.

Inspection-Inspect for corrosion, cracks, sharp edges, burrs, bending, distortion, or other deformities. If any defective condition is identified, immediately remove the device from service and destroy.

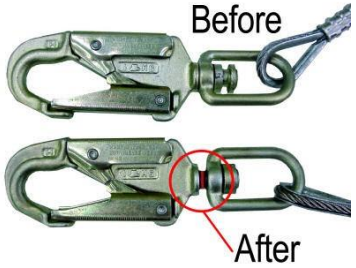
If device has been subjected to fall arrest or impact loading, remove from service and destroy.

If the hardware shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above and must be taken out of service.

Hardware Condition

Snaphook is a connector comprised 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. Snaphooks are required to be self-closing with a self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection.

Compliant connectors are stamped with strength ratings.



Carabiner is a connector generally shaped in a trapezoidal or oval body with a closed gate, or similar arrangement, that may be opened to attach another object and, when released, automatically closes to retain the object.

Appendix I:

Fall Protection Anchor Inspection Form

Anchor #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Anchor Type_____

P = PASS F = FAIL

		Label	**Hardware (if applicable)**		**Mounting Plates**			**Webbing (if applicable)**		**Stitching (if applicable)**	**Cable**	
Date	**Inspector Initials**	Label	Metal Condition	Connection Ring	Rivets	Welds	Connection Points	Main Body	Termination	Termination	Main Body	Termination

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware and Mounting Plates– Inspect for any corrosion, nicks, pitting, burn marks, bends, missing screws, damaged welds, or cracks. All rivets must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
If any portion of the anchor shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the anchor receives any "Fails" or "F's" in the table above, then that anchor must be taken out of service.

Anchor Condition

Cable Sling Anchor

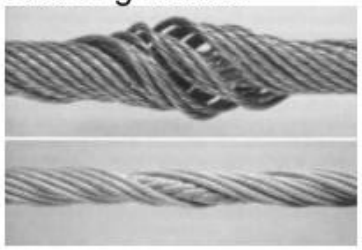
Temper Anchor

Welded Roof Anchor

Cross Arm Strap Anchor

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage


DANGER
HOLE COVER
DO NOT REMOVE


CAUTION
FALL HAZARD
* OPEN PIT *




Fall Protection Program for General Industry

29 CFR 1910.140, subpart I, Personal Fall Protection Systems
29 CFR 1910, subpart D, Walking-Working Surfaces





San Diego Freightliner
6006 Miramar Rd.
San Diego, CA 92121

This Fall Protection Program for General Industry has been developed in accordance with the requirements of Title 29, Sections 1910.140 and 1910.21-30 of the Code of Federal Regulations. I have reviewed this program for completeness and the provisions contained herein will apply to operations at San Diego Freightliner.

Signature	Title
Printed Name	Date

TABLE OF CONTENTS

OSHA REGULATIONS

PROGRAM OVERVIEW

Effective January 2017, the Occupational Safety and Health Administration (OSHA) updated the requirements for walking-working surfaces and slip, trip, and fall hazards (29 CFR 1910, subpart D), and provided additional requirements for personal fall protection systems (29 CFR 1910.140, subpart I) for employers in general industry.

In response to the updated requirements, KPA has developed a Fall Protection Program for general industry employers. The program provides accepted practices for walking-working surfaces as required in the 2016 update of 29 CFR 1910 subpart D, and for the implementation of 29 CFR 1910.140, subpart I, Personal Fall Protection Systems.

Falls from heights and falls on the same level are among the leading causes of serious work-related injuries and deaths. The requirements were revised to better protect employees in general industry from these hazards by updating standards and adding training and inspection requirements.

This program should be made available to all employees since walking-working surfaces affect every person, in every department, performing every activity to some degree. Fall protection systems will not affect everyone, however, employees need to be aware of when, and what kind of fall protection system is required in identified areas.

PURPOSE

The purpose of the Fall Protection Program is to provide criteria for the recognition, control and/or elimination of potential fall hazards which includes slips, trips and falls on the same level (walking-working surfaces), and elevated falls at a level of 4 feet or greater that may require the use of fall protection systems.

The program is designed to explain:

- The requirements for performing workplace hazard assessments;
- How to identify the most common fall hazards;
- The appropriate actions to take to prevent slip, trip and fall incidents;
- How to select the appropriate fall protection systems; and
- The options, recommendations and guidance on how to comply with the updated and added requirements of the regulations.

Effective program implementation requires support from all levels of management. The location manager, and/or their designee, is responsible to ensure program requirements are fulfilled. The program encompasses the total workplace, regardless of the number of employees or the number of work shifts. This applies to all facilities and field operations where personnel could be exposed to fall hazards of 4 feet or greater.

- OSHA defines “walking-working surface” as any horizontal or vertical surface on which an employee walks, works, or gains access to a workplace location. Employers are required to ensure walking-working surfaces are kept in a clean and orderly condition in all places of employment and during all work activities.
- “Fall protection” is any device, equipment, or system that prevents an employee from falling from an elevation or minimizes the negative effects of such a fall.

- This Fall Protection Program is not designed for the construction industry. Fall protection in construction applies when working at elevated heights of 6 feet or greater. Requirements for construction can be found at 29 CFR 1926, subpart M.

If feasible, fall hazards must first be controlled by using engineering controls. When engineering controls are not feasible, then administrative controls, personal fall arrest systems (PFAS) and training must be implemented. When using PFAS, employees are to be connected to an anchor point at all times (100% tie-off).

In order to determine if a Fall Protection Program is required or appropriate for a facility, the location manager, or his/her designee, should complete a preliminary fall hazard assessment to identify potential areas or tasks that might require fall protection. The Preliminary Fall Hazard Assessment Form (Appendix A) can be used to document the findings of the assessment. In addition, a third party (Risk Management Consultant) may be used to assist in completing this assessment.

RESPONSIBILITIES

Location manager

The location manager, or his/her designee, is responsible for ensuring the requirements of the Fall Protection Program are fulfilled. Administration of the program will require sufficient knowledge of hazard recognition and fall protection system requirements, and include the following actions:

- Assess all areas of the workplace to identify potential fall hazards;
- Select and provide appropriate fall protection systems and equipment, as needed or required;
- Ensure employees are trained in the proper use of fall protection systems and equipment;
- Enforce the use of selected fall protection systems and equipment;
- Ensure all fall protection systems and equipment are inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis;
- Ensure fall protection systems are installed and/or set up by a qualified or competent person; and
- Ensure fall protection procedures are followed.

Qualified person

“Qualified” describes a person who has a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has the ability to solve or resolve problems relating to fall protection matters.

- The qualified person must have a thorough understanding of the following:
    - Recognition of different types of fall hazards;

- Procedures to minimize fall hazards;
- Correct procedures for installing, inspecting, operating, maintaining and disassembling fall protection systems;
- Correct use of personal fall protection systems and other equipment;
- Use of fall protection systems and equipment, manufacturer limitations, and fall protection standards; and
- The role of employees in fall protection plans (as applicable).

Competent person

"Competent" describes a person who is capable of identifying existing and predictable hazards in any component of a personal fall protection system, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- The competent person must:
  - Have enough experience and knowledge to know when to call a qualified person;
  - Conduct a fall hazard survey and re-evaluate as work progresses;
  - Understand personal fall protection systems, components of the systems, and how they operate;
  - Ensure all personnel working at heights are trained;
  - Perform inspections of personal fall protection systems prior to each use;
  - Ensure the fall protection system is taken "out of service" following impact loading so all components can be inspected;
  - Ensure a rescue plan is in place in the event an employee falls; and
  - Participate in the incident investigation, if one occurs.

Employees

Employees are responsible for the following:

- Attend all appropriate training;
- Inspect fall protection systems and equipment prior to each use in accordance with manufacturer's guidelines and instructions;
  - Equipment that has been subjected to a fall or impact loading must be removed from service until inspected by a certified and qualified fall protection specialist, competent person, qualified professional engineer or the manufacturer.
- Utilize fall protection systems and equipment, as needed or required;
- Wear all required personal protective equipment (PPE);
- Report hazardous conditions or other health and safety concerns to your supervisor immediately;
- Report incidents, or near-miss incidents to your supervisor immediately; and
- Comply with all aspects of this program.

TRAINING

Ensure employees who are exposed to fall hazards, or who use fall protection systems, receive proper training that includes refresher training when necessary.

- **Training must be performed by a qualified person.**
- **Training must be understandable.** The employer must provide information and training to each employee in a manner that the employee understands.
- **Documentation.** Prepare a written certification record which includes the name of the employees trained, the date(s) of training, and the signature of the person who conducted the training.

Fall hazards

Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses fall protection systems. Employers must ensure employees are trained in at least the following topics:

- The nature of the fall hazards in the work area and how to recognize them;
- The procedures to be followed to minimize those hazards;
- How to estimate free fall distance;
- The correct procedures for selecting, installing, inspecting, operating, maintaining, and disassembling the fall protection systems that the employee uses;
- The limits of the fall protection system; and
- The correct use of personal fall protection systems and equipment including, but not limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

Equipment hazards

The employer must train each employee in the proper care, inspection, use and storage of fall protection systems and equipment prior to use.

- **Dock boards.** Employees must be trained to properly place and secure dock boards to prevent unintentional movement.
- **Rope descent system (RDS).** Employees who use a RDS must be trained in the proper rigging and use of the equipment in accordance with 29 CFR 1910.27.
- **Ladders.** Employees must be trained on how to safely use different types of ladders.
    - Fixed ladders. Employers are required to provide fall protection systems on fixed ladders that extend more than 24 feet above a lower level.
        - New fixed ladders over 24 feet must be equipped with a ladder safety system or personal fall protection system (effective November 19, 2018).
        - Existing fixed ladders over 24 feet must be equipped with a cage or well as required by the existing rule, or a ladder safety system or personal fall protection system as required by the final rule.

Retraining

The employer must retrain an employee when there is reason to believe that the employee does not have the understanding and/or skills required to use fall protection systems or equipment safely. Situations requiring retraining include, but are not limited to, the following:

- When changes in the workplace render previous training inadequate or obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training inadequate or obsolete;
- When inadequacies are identified in an employee's knowledge or use of fall protection systems or equipment;
- When the employee performs any task, or uses equipment in an unsafe manner;
- When the employee is involved in an incident, or near-miss incident that relates to slips, trips and falls, or fall protection systems; or
- Any time fall protection equipment or procedures fail.

FALL PROTECTION PROCEDURES

In addition to ensuring walking-working surfaces are maintained in an appropriate condition, the following procedures provide guidance on how to assess slips, trips and falls, and fall-from-height hazards of 4 feet or greater.

Walking-working surfaces

- Inspect walking-working surfaces regularly and maintain surfaces in a safe condition. The Walking-Working Surfaces Inspection Form (Appendix B) can be used to document these inspections.
    - Determine a frequency of inspection that is adequate to identify and address hazards in a timely manner.
    - Perform inspections as determined.
    - Conduct inspections when workplace conditions, circumstances, or events occur that warrant an additional check to ensure walking-working surfaces are safe.
- Ensure all places of employment including passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, sanitary, and if feasible, dry condition.
- Maintain drainage in areas where wet processes are used, and provide dry standing places such as false floors, platforms and mats, if feasible.
- Maintain walking-working surfaces free of sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, ice, and other slip, trip, and fall hazards.
- Correct or repair any hazardous walking-working surface conditions prior to employee use.
    - Guard the hazard to prevent employees from using the walking-working surface if the hazard cannot be immediately corrected.
    - A qualified person must perform or supervise any correction that may affect the structural integrity of a walking-working surface.

- Ensure each walking-working surface can support the maximum intended load for that surface.
- Ensure there is sufficient clearance in aisles, at loading docks, through doorways and wherever turns or passage must be made when using mechanical handling equipment.
- Provide standard guardrails at every stairway or ladderway floor opening in accordance with applicable OSHA requirements (29 CFR 1910.28).
- Provide skylight floor openings/holes with a standard skylight screen or fixed standard railing on exposed sides.

Basic fall protection

- Perform an assessment of the workplace to identify potential slips, trips and falls, and fall from heights hazards.
- Detail the required steps to take to protect employees from fall hazards. The Fall Hazard Assessment Form (Appendix C) can be used to document fall hazards.
- Identify the appropriate fall protection systems and equipment to use when hazards cannot be eliminated.
    - Fall protection systems and equipment must be selected by a qualified person.
- Provide training to personnel exposed to fall hazards that includes:
    - Recognition of fall hazards;
    - Understanding fall protection systems and equipment; and
    - Familiarity and use of personal fall arrest systems, equipment and procedures.
- Ensure that safe access and egress to elevated work areas are provided.
- Consider operational requirements when designing fall protection for elevated heights.
- Document the load rating of anchor points to be used with PFAS, as determined by a qualified person or professional engineer.
- Fall protection is not required on the working side of platforms used at loading racks, loading docks, and teeming platforms when it is not feasible. The working side exception only applies when the employer demonstrates infeasibility and:
    - The work operation is in process;
    - The employer limits access to the platform to “authorized” employees; and
    - The employer trains authorized employees to recognize fall hazards and understand the procedures to minimize them

EXCEPTIONS

There are four exceptions from the 4 foot trigger height to use fall protection:

1. **Over dangerous equipment**
    - When employees are less than 4 feet above dangerous equipment, they must be protected from falling into or onto the equipment.
2. **On fixed ladders**

- Employers are required to provide fall protection to those fixed ladders that extend more than 24 feet above a lower level.

3. **Use of motorized equipment on dock boards**
    - Employees often use motorized equipment to move large and/or heavy material across dock boards. This equipment may not fit on a dock board that has guardrails or handrails.
4. **Around repair, service, and assembly pits**
    - Employers do not have to provide fall protection systems for service, repair, or assembly pits that are less than 10 feet deep, provided the employer:
        - Limits access within 6 feet of the pit edge to trained, authorized employees;
        - Applies floor markings or warning lines and stanchions at least 6 feet from the pit edge; and
        - Posts visible caution signs that state “Caution—Fall Hazard-Open Pit,” or similar verbiage.
    - When two or more pits in a common area are not more than 15 feet apart, the employer may comply by placing contrasting floor markings at least 6 feet from the pit edge around the entire area around the pits.

PROTECTION FROM FALLING OBJECTS

The requirements listed in the walking-working surface regulation are not only designed to protect employees from falls on the same level and falls from heights, but also to protect employees from having objects fall on them.

- Protect employees from falling objects by implementing one or more of the following:
    - Erect toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;
    - Erect canopy structures or keep potential falling objects away from an edge, hole or surface opening; or
    - Guard/barricade the area where objects could fall and minimize or prohibit employee access.
- Install toeboards at the walking surface level of a guardrail system. Toeboards are designed to prevent materials, tools, and equipment from falling to a lower level, and to protect employees from falling objects. Ensure toeboards used for falling object protection:
    - Are erected along the exposed edge of the overhead walking-working surface;
    - Have a minimum vertical height of 3.5 inches as measured from the top edge of the toeboard to the level of the walking-working surface;
    - Have a minimum height of 2.5 inches when used around vehicle repair, service, or assembly pits;
        - Toeboards may be omitted around vehicle repair, service, or assembly pits when the toeboard would prevent access to a vehicle that is over the pit.

- Do not have more than a ¼ inch opening above the walking-working surface;
- Are solid or do not have any opening that exceeds 1 inch; and
- Are capable of withstanding, without failure, a force of at least 50 lbs in any downward or outward direction.

Ensure there is a good housekeeping program in place to identify and remove hazards, and provide employees a safe place to work. When materials and debris are properly cleaned up and tools are put in proper storage areas, the risk of injury from falling objects can be greatly reduced.

REQUIREMENTS OF THE FINAL RULE

Inspections of walking-working surfaces

Employers are required to perform inspections of walking-working surfaces on a regular basis, and as necessary, to identify hazards and address them in a timely manner. Although it may seem the rule will have no impact on your facility, consider all areas or tasks that might be covered by the regulations.

Common fall hazards may include, but are not limited to the following:

Floor holes	Mezzanines	Vehicle repair, service & assembly pits
Floor openings	Overhead storage areas	Work performed on high-profile vehicles: sprinter vans, commercial trucks, RVs, railcars
Wall openings	Unprotected elevations/platforms	Parking lots/parking areas
Aisles/walkways	Work over dangerous equipment	Scaffolding
Stairways	Work over chemical tanks	Aerial lifts
Open sides & edges (leading edge)	Roof openings	Excavations
Dock boards	Skylights	Grain bins
Loading docks	Ladders	Step bolts

Fall protection systems

Employers are no longer required to make guardrails the primary means of fall protection, they may now choose from a range of accepted fall protection systems and equipment appropriate for the situation. Following are suggested fall protection options:

- **Covers.** Protect employees from hazards associated with holes by the use of covers. A hole is a gap or void 2 inches or more in a floor, roof, deck, or other walking/working surface that presents hazards due to:
    - Employees falling through holes;
    - The hole's design creating a trip hazard; or
    - Objects falling through the hole and injuring employees below.
    - Covers for permanent holes are typically built for a specific purpose (i.e. permanent access points, manhole covers, and trap doors) and are only effective when they are properly designed and secured in place.
    - Effective hole covers are:

- Large enough to provide appropriate overlap to prevent employees from falling through;
- Strong enough to support at least twice the anticipated weight imposed by the heaviest load;
- Left in place over the hole until access is needed;
- Secured and do not create trip hazards; and
- Marked clearly as “Hole Cover” or “Open Hole”

- **Guardrail System.** Guardrail systems are installed on open sides of elevated locations. The guardrail consists of a vertical barrier with a top-rail, mid-rail, (toeboard as appropriate), and intermediate vertical rails erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.
  - Guardrails are common for storage areas on elevated levels, mezzanines and at loading docks.
  - Guardrail systems must meet the following criteria:
    - Top-rails must be installed 42 inches (+/- 3 inches) above the walking/working surface and be capable of withstanding a minimum force of 200 lbs in any outward or downward direction within 2 inches of the top edge;
      - The top-rail must not deflect to a height of less than 39 inches above the walking-working surface when the test load is applied.
    - Mid-rails must be installed 21 inches above the walking/working surface and be capable of withstanding a minimum force of 150 lbs in any outward or downward direction;
    - Posts must be spaced not more than 8 feet apart on centers;
    - There are no openings more than 19 inches wide in any guardrail system;
    - Do not use plastic or steel banding as top-rail;
    - Provide top-rails and mid-rails of at least ¼ inch thickness or diameter, and smoothly surfaced to prevent cuts and punctures; and
    - Add high-visibility flags to the top-rail when using wire rope for top-rails.
  - Erect guardrails on all sides around holes or floor openings.
  - Install a gate or offset guardrails when they are used around holes that provide access, such as ladder ways, so that a person cannot walk directly into the floor opening.
  - Place a chain, gate or removable guardrail across the access point to hoisting operations when operations are not taking place.
  - Provide guardrail systems or other fall protection systems at **all** locations above dangerous equipment, even if not 4 feet or greater.

- Provide guardrails at all wall openings where the outside bottom edge of the 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.
- Erect guardrail systems on all unprotected sides or edges of ramps and runways.

- **Personal Fall Protection System.** A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.
  - **Personal Fall Arrest System (PFAS).** A personal system used to prevent a falling employee from contacting a lower level. A PFAS consists of a full-body harness, anchorage, connector, and may include a lanyard, deceleration device, lifeline, or suitable combination of these.
    - Consider using a PFAS when performing work on elevated surfaces where guardrails are not a convenient or practical solution, such as on top of high profile vehicles.
    - Requirements for a PFAS include training on inspection, use and proper maintenance and storage.
    - Inspect all fall protection components for wear, damage, and deterioration prior to each use.
    - Remove damaged or defected equipment from service immediately
    - Use only full body harnesses, shock-absorbing lanyards, horizontal lifelines, self-retracting lifelines and anchorage points which meet the following criteria:
      - Limit the maximum arresting force on an employee to 1,800 lbs;
      - Prevent the employee from free falling more than 6 feet or from contacting any lower level;
      - Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet;
      - Are strong enough to withstand twice the potential impact energy of the employee free falling a distance of 6 feet; and
      - Sustain the employee within the system/strap configuration without making contact with the employee's neck and chin area.
    - All components of a personal fall arrest system meet the specifications of 29 CFR 1910.140, Personal Fall Protection Systems.
    - Full body harness. Harness that consists of straps that secure around the torso of the employee in a manner to distribute the force of a fall over the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
    - Connector. A device which is used to couple (connect) parts of the PFAS. Three common connectors include:

- Snap hook. Automatic-locking with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or suffering permanent deformation
    - Non-locking snap hook with a self-closing gate that remains closed, but not locked, is prohibited
- D-ring. A metal loop with a spring-hinged side that can quickly and reversibly connect components.
    - Attachment of the D-ring to the body harness must be located in the center of the wearer's back near shoulder level
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or incurring permanent deformation
- Carabiner. A connector usually oval shaped body with a closed gate that may be opened to attach another object, and when released closes automatically.
    - Must be capable of sustaining a minimum tensile load of 5000 lbs
    - Must be proof-tested to a minimum tensile loaf of 3600 lbs without cracking, breaking, or incurring permanent deformation

- Anchor point. Secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be:
    - Capable of supporting at least 5,000 lbs (3,600 lbs if engineered/ certified by a qualified person) per person; and
    - Independent of any anchor point being used to support or suspend platforms.
- Lanyard. A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body harness or body belt to a deceleration device, lifeline, or anchorage.
    - Lanyards must be compatible with all connectors used.
    - Lanyards must be protected from being cut, abraded, melted, or otherwise damaged.
- Lifeline. A flexible line for connection to an anchorage at one end so as to hang vertically (vertical lifeline), or for connection to anchorages at both ends so as to stretch horizontally (horizontal lifeline), and serves as a means for connecting other components of the system to the anchorage.

- Provide separate vertical lifelines for each employee using a vertical lifeline.
- A self-retracting lifeline/lanyard is a device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Self-retracting lifelines and lanyards which limit free fall to 2 feet or less must be capable of sustaining a minimum tensile load of 3,000 lbs in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall to 2 feet or less, rip-stitch, and other shock-absorbing lanyards must be capable of sustaining a minimum tensile load of 5,000 lbs in the fully extended position.

▪ Deceleration device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lanyard, etc. that serves to dissipate energy during a fall.

▪ Train employees on how to properly fit (including weight limitations) and wear a full-body harness, identify proper tie-off techniques and connections, and determine suitable anchorage points.

▪ Instruct employees to rig fall protection to prevent a free fall more than 4 feet and not to contact any lower level.

▪ Do not tie off to guardrail systems or hoists.

▪ Require employees to remain tied off 100% of the time when at or above 4 feet, or if less than 4 feet over hazardous equipment.

▪ Remove from service any component of a personal fall protection system that has been subjected to impact loading.

- Do not reuse equipment until inspected by a qualified or competent person, professional engineer, or manufacturer and determined to be undamaged.
- Most equipment is not intended for reuse following impact loading.

▪ ***Use of a body belt in a PFAS is prohibited!***

o **Rescue.** When personal fall arrest systems are used, special consideration must be given to promptly rescuing an employee should a fall occur. The Fall Protection Rescue Assessment (Appendix D) can be used to document this assessment.

▪ Evaluate the availability of rescue personnel, ladders, or other rescue equipment for situations where an employee cannot perform self-rescue.

▪ Post emergency contact information if relying on outside organizations for rescue.

▪ Employees can perform self-rescue after the fall has arrested if devices have descent capability.

- **Travel Restraint System.** A combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support (full-body harness or body belt) used to eliminate the possibility of an employee going over the unprotected edge or side of a walking-working surface.
    - Use in areas where sufficient anchor points for PFAS are not available.
    - Requirements for snap hooks, D-rings and other connectors are the same as listed in the PFAS section of this program.
    - This system does not support the employee's weight but it is used to prevent employees from reaching the fall hazard, such as an unprotected side or edge.
- **Positioning System.** A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and perform work with both hands free.
    - A system designed to hold and sustain an employee at a work location and limit the free fall to 2 feet or less.

- **Ladder Safety System.** A system or device attached to a fixed ladder designed to eliminate or reduce the possibility of an employee falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and full body harness or body belt.
    - Cages and wells are not considered ladder safety systems.
- **Safety Net System.** A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling employees before they make contact with a lower level or obstruction. Safety nets can be used where the use of ladders, scaffolds, catch platforms, temporary floors, or safety lines are impractical.
    - Install safety nets as close as possible under the walking/working surface on which employees are working, but never more than 30 feet below this level.
    - Safety nets must extend outward horizontally from the outermost projection as follows:
        - 8 feet for a vertical drop of up to 5 feet
        - 10 feet for a vertical drop between 5 and 10 feet
        - 13 feet for a vertical drop more than 10 feet but not to exceed 30 feet
    - Install safety nets with enough clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
    - Remove all materials, scrap, equipment, and tools which have fallen into the net as soon as possible, but at least before the next work shift.
    - Safety nets must be inspected at least once a week for wear, damage, and other deterioration, and after any occurrence which could affect the integrity of the safety net system. Defective components shall be removed from service and defective or damaged nets are not to be used.

Scaffolding requirements

The existing scaffolding standards for general industry will be replaced with those currently in use for construction (29 CFR 1926.450).

Fixed ladders

The following requirements apply to fixed ladders that extend more than 24 feet above a lower level.

- **Existing fixed ladders.** Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **New fixed ladders.** Each fixed ladder installed on and after November 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.
- **Replacement.** When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **Final deadline.** On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system, or a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section, the employer must ensure:

- The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections; and
- The ladder has rest platforms provided at maximum intervals of 150 feet.

The employer must ensure ladder sections having a cage or well:

- Are offset from adjacent sections; and
- Have landing platforms provided at maximum intervals of 50 feet.

The employer may use a cage or well in combination with a personal fall arrest system or ladder safety system provided that the cage or well does not interfere with the operation of the system.

Rope descent systems (RDS) and anchorage certification

- RDS consists of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seat board. These systems are commonly used to perform elevated work such as window washing.
- RDS requires building owners to provide, and employers to obtain, proof that permanent RDS anchorages have been properly inspected, tested, and maintained, and are able to support 5,000 lbs per attached employee. RDS are prohibited at heights of 300 feet above grade unless all other systems are proven to be impractical or pose a greater hazard.

Phase-out of the “Qualified Climber” exception in outdoor advertising

Although this requirement will not apply to many employers, it is important to understand how the regulations might apply.

- The final rule requires all employees to comply with ladder safety and fall protection requirements when climbing fixed ladders on billboards over 24 feet tall.

- Employers have 2 years to install systems that comply with either the existing standard (i.e., cages and wells) or the new ladder safety and personal fall protection standards.

INSPECTIONS

Inspection of fall protection systems

- PFAS must be inspected prior to each use for wear, damage, defects and other deterioration.
    - Remove defective components from service immediately and either destroy the equipment or label it “out of service” or “damaged.”
- A qualified or competent person must inspect each PFAS at least annually, or more often if recommended by the manufacturer.
    - Document the date of each inspection.
- Use the following criteria to help maintain equipment in good working condition:
    - Full Body Harness. The Fall Protection Full Body Harness Inspection Form (Appendix E) can be used to document these inspections.
        - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
        - Inspect harness for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside and outside of the body pad.
        - Examine all nylon webbing to ensure that there are no burn marks which could weaken the material.
        - Verify there are no torn, frayed, or broken fibers; pulled stitches; or frayed edges anywhere on the harness.
        - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame.
        - The tongue or billet of the belts receive heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion.
            - Never punch additional holes in the harness.
        - Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.
        - Examine the condition of D-ring rivets and D-ring metal wear pads (if any). Discolored, pitted or cracked rivets might indicate chemical corrosion.
        - Inspect friction buckles for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

- Inspect the sliding bar buckles and buckle frames for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.
- Store harnesses in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
- Remove harnesses that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.

- Lanyards/Shock-Absorbing Lanyards. The Fall Protection Lanyard Inspection Form (Appendix F) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Visually inspect shock absorber (if present) for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
  - Inspect the shrink-wrapped casing of the shock absorbing pack to ensure that it has not been expanded or damaged. Impact indicators must not show expansion.
  - Inspect webbing for cuts, holes, frays, discoloration, paint contamination, heat and excessive wear damage. Termination is the webbing end which meets the connectors.
  - Inspect cable for bird caged wire or cable separation.
  - Inspect connectors for corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
  - Inspect the snap hooks for distortions in the hook, locks, and eye.
  - Check carabiner for excessive wear, distortion, and lock operation.
  - Ensure that all locking mechanisms seat and lock properly.
  - Store lanyards in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
  - Remove lanyards that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.
- Self-Retracting Lanyards/Lifelines. The Fall Protection Self-Retracting Lanyard Inspection Form (Appendix G) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Inspect the body to ensure there is no physical damage.
  - Make sure that all nuts and rivets are tight.
  - Make sure that the entire length of the nylon strap/wire rope retracts freely, and is free from cuts, burns, abrasions, kinks, knots, broken stitches/strands and excessive wear.

- Test the unit by pulling sharply on the lanyard/ lifeline to verify thatthe locking mechanism is operating correctly.
- Conduct and document a monthly inspection of all self-retracting lanyards/lifelines by a qualified or competent person.
- Return the device to the manufacturer for service per manufacturer's specifications (usually annually).
- Inspect visually and functionally after a fall or impact loading.

- Snap Hooks and Carabiners (Hardware). The Fall Protection Hardware Inspection Form (Appendix H) can be used to document these inspections.
  - Ensure the load rating is either forged or etched into the spine of the carabiner or snap hook and is legible.
  - Verify:
    - There are no hook and eye distortions
    - There are no cracks or pitted surfaces
    - The keeper latch is not bent, distorted, or obstructed
    - The keeper latch seats into the nose without binding
    - The keeper spring securely closes the keeper latch
  - Test the locking mechanism to verify that the keeper latch locks properly.
  - All snap hooks involved in a fall should be destroyed.
- Anchor Points. The Fall Protection Anchor Inspection Form (Appendix I) can be used to document these inspections.
  - A qualified or competent person must perform an annual inspection of all tie-off and anchor points.
  - Maintain documentation of anchorage load ratings and inspections.
  - Inspect anchorages for integrity and attachment to solid surface prior to use.
- Horizontal Lifelines
  - Horizontal lifelines must be designed, installed, and used under the supervision of a qualified person.
  - Lifelines are part of a complete personal fall arrest system and must maintain a safety factor of at least 2.
  - Inspect the structural integrity of line and anchors before each use.
  - A qualified or competent person will complete and document an annual inspection.

STORAGE AND MAINTENANCE

Maintenance and storage of fall protection equipment

To ensure that fall protection systems are ready and able to perform as designed, a preventative maintenance schedule should be implemented.

Following are basic requirements of a maintenance program, however, you should follow manufacturer's recommendations for storage and maintenance, if provided.

- Documented inspections must be performed annually by a qualified or competent person, or more often if required by the manufacturer.
- Inspect all fall protection equipment prior to each use and verify the last documented inspection date.
- Store personal fall arrest equipment in a cool, dry, clean location and in a manner that maintains its shape. (It is preferable to hang harnesses)
    - Never store PFAS equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow).
    - Never store equipment in areas with excessive heat, chemicals, fumes, corrosive elements or moisture.
    - Consider possible exposure to radiation, electrical conductivity, and chemical effects when storing equipment
- Maintain a PFAS in a clean and dry condition so it is ready for use.
    - Clean with a mild, non-abrasive soap and hang to dry.
    - Never force dry or use strong detergents in cleaning.
- Never use equipment for any purpose than its intended use (personal fall arrest).
- Once a PFAS is exposed to a fall or impact loading, label "out of service" and do not use until inspected by a qualified or competent person, or returned to the manufacturer for inspection.
    - Equipment that is "out of service," damaged, or in need of maintenance will be tagged as unusable and will not be stored in the same area as serviceable equipment.
    - Components of a PFAS may have to be destroyed after impact loading.

EFFECTIVE DATES

Most of the requirements of the final rule became effective on January 17, 2017, however, some provisions of the rule have delayed effective dates:

By…	Employers must ensure that…
November 20, 2017	Anchorages for rope descent systems must be inspected and certified, as applicable.
November 19, 2018	New fixed ladders over 24' tall must be equipped with ladder safety systems or personal fall protection systems.
	Existing fixed ladders over 24' tall must be equipped with a cage or well per the existing rule, or a ladder safety system or personal fall protection system per the final rule.
November 18, 2036 (20 years after initial publication)	All fixed ladders over 24' tall are equipped with ladder safety system or personal fall protection systems.

DEFINITIONS

Anchorage - A secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt – A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness - Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person – A person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector – A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.

Deceleration device - Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip-stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber - A device that limits shock-load forces on the body.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system - A system specifically designed to secure, suspend, or assist in retrieving an employee in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall - The act of falling before a personal fall 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 belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

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

Lanyard - A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading edge - The edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which

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

Opening - A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system - A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system - A body belt or 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.

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.

Retractable lifeline - A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope grab - A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

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

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

Snap-hook - A connector comprised 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 are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard - A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface - Any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system - A 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 guardrail, body belt, or safety net systems to protect employees in the area.

Work area - That portion of a walking/working surface where job duties are being.

APPENDICES

Appendix A: Preliminary Fall Hazard Assessment

Appendix B: Walking-Working Surfaces Inspection Form

Appendix C: Fall Hazard Assessment Form

Appendix D: Fall Protection Rescue Assessment

Appendix E: FP Full Body Harness Inspection Form

Appendix F: FP Lanyard Inspection Form

Appendix G: FP Self-Retracting Lanyard Inspection Form

Appendix H: FP Hardware Inspection Form

Appendix I: FP Anchor Inspection

Appendix J: Hole Cover Sign-Example

Appendix K: Open Pit Sign-Example

Appendix A Preliminary Fall Hazard Assessment

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	

Section 1: Fall Hazard Identification (See page 2 for additional guidance) ***Will employees be operating in close proximity to any of the following:***		
1. Are there unprotected wall / floor openings that are 4′ or more above a lower level?	☐ Yes	☐ No
2. Are there unprotected edges (4′ above lower level) or leading edges (6′ above lower level)?	☐ Yes	☐ No
3. Are there open holes in floors (i.e. floor drains, manholes)?	☐ Yes	☐ No
4. Are there openings in roofs that could allow a fall to a lower level (i.e. roof hatches, ladder access, skylights)?	☐ Yes	☐ No
5. Is work being performed on roofs of high-profile vehicles or rail cars that are 4′ or higher?	☐ Yes	☐ No
6. Are there elevated storage areas with unprotected sides or edges (i.e. mezzanines)?	☐ Yes	☐ No
7. Are employees exposed to open repair, service or assembly pits (lube)?	☐ Yes	☐ No
8. Are employees performing work within 15′ of the edge of the facility roof?	☐ Yes	☐ No
9. Are employees climbing fixed ladders over 24′ in height?	☐ Yes	☐ No
10. Are employees exposed to excavations, cliffs, or open pits over 4′ deep? (Construction is 6′ deep)	☐ Yes	☐ No
11. Are employees using aerial lifts such as manlifts, boom lifts, spider lifts, vertical personnel lifts, scissor lifts, bucket trucks, cherry pickers?	☐ Yes	☐ No
12. Are there any other unprotected elevated work surfaces that are 4′ or more above a lower level, or 6′ or more above a lower level in construction?	☐ Yes	☐ No

Section 2: Identification of Requirement for Fall Protection	
For facilities in general industry, the trigger height for fall protection systems is 4′ or more above a lower level.	
For facilities or activities in construction, the trigger height for fall protection systems is 6′ or more above a lower level.	
Employees working or operating above dangerous equipment (regardless of height) must be protected from falling into the equipment.	
If you have answered "No" to all questions in Section 1, then no fall hazards have been identified and no further action is necessary at this time.	☐
If you only answered "Yes" to question #7, see page 2 for requirements to proceed.	☐
If you have answered "Yes" to other questions in Section 1, then please review and select an option in Section 3.	☐

Section 3: Fall Protection Control	
The identified fall hazards at this location will be managed by installing engineering controls that comply with 29 CFR 1910 Subpart D (general industry) or 29 CFR 1926 Subpart M (construction). Additional fall protection systems, procedures, or PPE will not be necessary at this time.	☐
The identified fall hazards at this location will be managed by the installation and use of fall protection systems that may include a full body harness, lanyard, self-retracting lanyard, fall restraint system, etc. A further assessment will be conducted and fall protection systems, procedures and equipment will be installed.	☐

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Section 1: Additional Guidance

1. **Unprotected Wall/Floor Opening** - A gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level. This could include an opening in guardrails on a mezzanine, an open storage landing, etc.

2. **Unprotected edges** - Any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level. This could include roofs, mezzanines, landings, etc.
   Unprotected leading edges – (construction tern) - Leading edge means the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.

3. **Open holes in floors** - A gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension. This could include open drain traps.

4. **Openings in roofs or skylights** - A gap or open space in a roof or skylight that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

5. **Unprotected roofs of high-profile vehicles** – This would include a roof used as a walking working surface at a height of 4 feet or greater. High-profile vehicles could include: tractors, trailers, semi trucks, RVs, vans, buses, rail cars, etc.

6. **Storage areas without side or edge protection** – This could include unprotected edges/sides of mezzanines, areas above offices, or landings. If an employee steps off a ladder to handle materials and the area is 4 feet or more above a lower level then a fall protection system is necessary.

7. **Open repair, service or assembly pits** – This would be an opening in the floor designed for employee entrance in order to perform work. This could include lube pits or transmission repair pits and alignment pits. (This would not include an excavation or trench)

1910.28(b)(8) *Repair pits, service pits, and assembly pits less than 10′ in depth*. The use of a fall protection system is not required for a repair pit, service pit, or assembly pit that is less than 10′ deep, provided the employer:

1) Limits access within 6′ of the edge of the pit to authorized employees trained in accordance with § 1910.30;

2) Applies floor markings at least 6′ from the edge of the pit in colors that contrast with the surrounding area; or places a warning line at least 6′ from the edge of the pit as well as stanchions that are capable of resisting, without tipping over, a force of at least 16 lbs applied horizontally against the stanchion at a height of 30″; or places a combination of floor markings and warning lines at least 6′ from the edge of the pit. When two or more pits in a common area are not more than 15′ apart, the employer may comply by placing contrasting floor markings at least 6′ from the pit edge around the entire area of the pits; and

3) Posts readily visible caution signs that meet the requirements of § 1910.145 and state "Caution-Open Pit."

8. **Facility roof** – This refers to the roof of the facility. If employees are going to be with 15 feet of the roof edge, then a fall protection system is required. Work an a HVAC system, for example.

9. **Fixed ladders over 24 feet in height** – A fixed ladder is one which is permanently attached, such as a ladder to access the roof of the building.

10. **Excavation** - The removal of earth, usually to allow the construction of a foundation, basement or to perform pipe work. If the fall distance is greater than 6 feet then a fall protection system must be installed.

11. **Aerial lifts** – This could include articulated booms, telescopic booms, forklift attachment cages designed to lift an employee, scissor lifts, etc.

Comments:

Appendix B: Walking-Working Surfaces Inspection Form
(Slip, Trip & Fall Hazards)

Company Name: Address:	Specific Location: Assessor/s:	
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

WALKING-WORKING SURFACES			
Surface Conditions:	**YES**	**NO**	**NA**
1. Floors are kept clean, orderly, sanitary and dry (except where wet processes are necessary).	☐	☐	☐
2. Where wet floors or processes are necessary, proper drainage and/or raised surfaces, dry standing platforms, mats, or other non-slip material are provided.	☐	☐	☐
3. Floors are free of leaks, spills, water, snow, ice and other slip hazards.	☐	☐	☐
4. Floors are free from protruding nails, loose boards, cracked tiles, and other tripping hazards.	☐	☐	☐
5. Holes are repaired or covered.	☐	☐	☐
6. Surfaces in poor condition are repaired or guarded by visible barricades.	☐	☐	☐
7. Carpeting and other floor mats and trim, lay flat and are securely fixed.	☐	☐	☐
8. Entryways have absorbent mats to prevent slips due to wet conditions.	☐	☐	☐
9. Changes in direction or elevation are clearly marked.	☐	☐	☐
10. Adequate headroom is provided for the entire length of all walkways.	☐	☐	☐
11. There is adequate clearance in aisles, through doorways, and at loading docks.	☐	☐	☐
12. Standard guardrails are provided at every stairway or ladderway floor opening.	☐	☐	☐
13. Floors can support the maximum intended load.	☐	☐	☐
14. Parking lots and sidewalks are free of broken pavement, potholes, gaps and cracks.	☐	☐	☐
15.	☐	☐	☐
Housekeeping Hazards:	**YES**	**NO**	**NA**
16. Work areas, aisles, and walkways are free of debris or clutter.	☐	☐	☐
17. Walkways are free of cords and wiring.	☐	☐	☐
18. Exit and entrances are unobstructed at all times.	☐	☐	☐
19. Emergency exits are clearly marked.	☐	☐	☐
20. Landings and stairways are free of debris and storage.			
21. Containers are readily available for the disposal of trash.	☐	☐	☐
22. Equipment and materials are cleaned up and stored when not in use.	☐	☐	☐
23. All spilled materials are cleaned up immediately.	☐	☐	☐
24. There are adequate supplies for clean-up, barricading, and posting wet-floor signs.	☐	☐	☐
25. Employees know where housekeeping materials are located and how to use them.	☐	☐	☐
26. Employees are trained to clean up any spills promptly and to notify others of the spill.	☐	☐	☐
27.	☐	☐	☐
Stairs, Ramps, and Guardrails:	**YES**	**NO**	**NA**
28. Changes in elevation are clearly identified.	☐	☐	☐

29. For elevation changes greater than 19 inches, either a ramp or stairs are used.	☐	☐	☐
30. Walking surfaces of ramps contrast visually and materially from the surrounding floor.	☐	☐	☐
31. Ramps and stairs have slip-resistant surfaces.	☐	☐	☐
32. Stair riser height and tread depth is uniform.	☐	☐	☐
33. Handrails are present if stairs have one or more risers.	☐	☐	☐
34. On stairways that are less than 44 inches wide that are enclosed on both sides, at least one handrail is present.	☐	☐	☐
35. On stairways that are less than 44 inches wide that and are open on one side, a stair rail or guard is present on the open side.	☐	☐	☐
36. On stairways that are wider than 44 inches, handrails are present on both sides.	☐	☐	☐
37. Handrails on stairs run the entire length of stairway and extend past the top and bottom steps.	☐	☐	☐
38. Handrails are tight, and at the proper level (between 30-38" high).	☐	☐	☐
39. Adequate lighting is provided in stairwells and landings.	☐	☐	☐
40. Guardrails are provided wherever walking surfaces are elevated more than 48 inches above the floor.	☐	☐	☐
41. Doors to stairways open onto stairway landings, not directly onto a step.	☐	☐	☐
42.	☐	☐	☐
Inspections and Administrative Controls:	**YES**	**NO**	**NA**
43. An inspection program/schedule for walking-working surfaces has been established.	☐	☐	☐
44. Employees are trained in slip, trip and fall hazard identification and prevention.	☐	☐	☐
45. A building inspection is performed to assure all work areas are well-lit.	☐	☐	☐
46.	☐	☐	☐
47.	☐	☐	☐

REQUIRED ACTIONS / RECOMMENDATIONS	
Hazard (question #)	

ADDITIONAL COMMENTS

SIGNATURE OF ASSESSOR		
* ***File a copy of this inspection report in your KPA Yellow Box for future reference.***		
Name:	Signature:	
Title:	Date:	Time:

Appendix C: Fall Hazard Assessment Form

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

FALL HAZARD ASSESSMENT CHECKLIST		
1. If industry classification is general, is the fall distance over 4 feet?	☐ Yes	☐ No
2. If industry classification is construction, is the fall distance over 6 feet?	☐ Yes	☐ No
3. Have slipping and tripping hazards been removed or controlled?	☐ Yes	☐ No
4. Can an employee enter the area without restriction and perform work?	☐ Yes	☐ No
5. Will employees be working over dangerous equipment?	☐ Yes	☐ No
6. Can conventional Fall Protection Systems be used? (i.e. guardrails, safety nets, or PFAS)	☐ Yes	☐ No
7. Are fall prevention systems such as cages, guardrails, toeboards, manlifts in place?	☐ Yes	☐ No
8. Is this area an open repair, service or assembly pit where the fall distance is less than 10 feet?	☐ Yes	☐ No
9. Have visual warnings of fall hazards been installed?	☐ Yes	☐ No
10. Can the distance a worker could fall be reduced by installing platforms, nets, etc.?	☐ Yes	☐ No
11. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ Yes	☐ No
12. Are there any falling equipment or tools hazards for the area below the working area?	☐ Yes	☐ No
13. Does this area have additional recognized hazards such as chemical sprays or hot work?	☐ Yes	☐ No
14. Is the space designated as a Permit Required Confined Space?	☐ Yes	☐ No

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

- *Potential environmental conditions that could impact safety:*

Initials	Condition	Remarks/Recommendations

- *Possible required structural alterations:*

Initials	Alteration	Remarks/Recommendations

- *Possible task modification that may be required:*

Initials	Task	Remarks/Recommendations

- *Breakdown of vertical and horizontal movement: (sketch out work task):*

FALL PROTECTION SYSTEM

- *Best Recommended Form of Fall Protection System Based on Above Conditions:*

Initial	Equipment	Remarks/Recommendations

1. Will Recommended System Have the Capability to Support or Arrest 310lbs?	☐ **Yes**	☐ **No**

- *Training Requirements:*

Initial	Requirement	Remarks/Recommendations

- *Additional Personal Protective Equipment Required:*

Initial	Requirement	Remarks/Recommendations

☐ **Approved**

AUTHORIZATION

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Fall Hazard Assessment Checklist Reference	
Question	Program Reference
If you have answered "Yes" to any of questions 1-4	"Fall Protection Procedures" - Page 7
If you have answered "Yes" to question 5	"Exceptions" - Page 8
If you have answered "No" to question 6	"Fall Protection Plans" – Page 14
If you have answered "No" to question 7	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 8 or "No" to question 9	"Exceptions" - Page 8
If you have answered "Yes" to question 10 or "No" to question 11	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 12	"Protection From Falling Objects" - Page 9
If you have answered "Yes" to questions 13 or 14	Those additional hazards will need to be taken into consideration when selecting the best form of fall protection system

Appendix D: Fall Protection Rescue Assessment

Company Name: Address:	Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction

Contacts: (Please list in notification priority)

Onsite Rescue Team	*Phone Number*	*24 Hour Emergency Phone Number*	*Shift Number*
Other Emergency Contacts	*Phone Number*	*24 Hour Emergency Phone Number*	

Arranged Emergency Responding Agencies: ☐ **N/A**

Agency	*Phone Number*	*Contact Name*

Local First Aid Service:

Rescue Factors:

Initials	*Arresting Area (Height)*	*Remarks/ Recommendations*
Initials	*Rescue Obstructions or Hazards*	*Remarks/ Recommendations*

Rescue Equipment:

Equipment	*Location of Equipment*
☐ Ladder	
☐ Aerial Lift	
☐ Rescue Rope	
☐ Scaffold	
☐ Crane	
☐ Rescue Pole	
☐ RSQ	
☐ Life Jacket/Ring	
☐ First Aid Supplies	
☐	

Rescue Response Procedure:
Description of rescue process: 1) Notify rescue team 2) Make medical assessment 3) Determine if emergency services need to be notified 4) If possible, have employee perform self-rescue 5) 6) *Remember that all equipment involved in a fall arrest or impact loading must be removed from service and destroyed.*

Have all members of the Rescue Team been trained in all rescue procedures for this site?	☐ **Yes** ☐ **No**

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Rescue Plan Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Appendix E: Fall Protection Full Body Harness Inspection Form

Harness #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer _____

P = PASS F = FAIL

		Label		Hardware				Webbing				Stitching			
Date	**Inspector Initials**	Label	Impact Indicator	Shoulder Adjustment Buckles	Leg/Waist Buckles	D-Ring	Chest Buckle	Shoulder Straps	Chest Straps	Leg Straps	Back Straps	Shoulder Straps	Chest Straps	Leg Straps	Back Straps

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware – Inspect for any corrosion, nicks, pitting, burn marks, or cracks. All buckle system grommets must be in place without any damage. Mating buckles are flush and not bent.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.

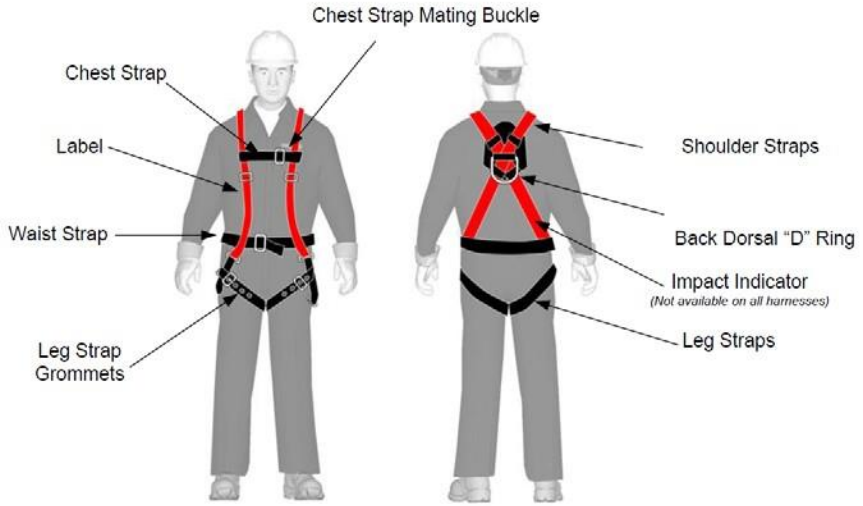
If any portion of the harness shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the harness receives any "Fails" or "F's" in the table above, then that harness must be taken out of service and discarded.

Safety Harness Inspection

Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. **FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS.**

CONDITION

1. Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. **Check for thread separation or rotting both inside and outside of the body pad.**
2. Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. **Check for distortion or sharp edges.**
3. The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. **Check for excessive elongation or distortion.**
4. Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. **Bent rivets will fail under stress.**
5. Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). **Discolored, pitted or cracked rivets may indicate chemical corrosion.**
6. Friction buckles must be inspected for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.
7. Sliding bar buckles must have the buckle frame and sliding bar inspected for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.



Appendix F:

Fall Protection Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

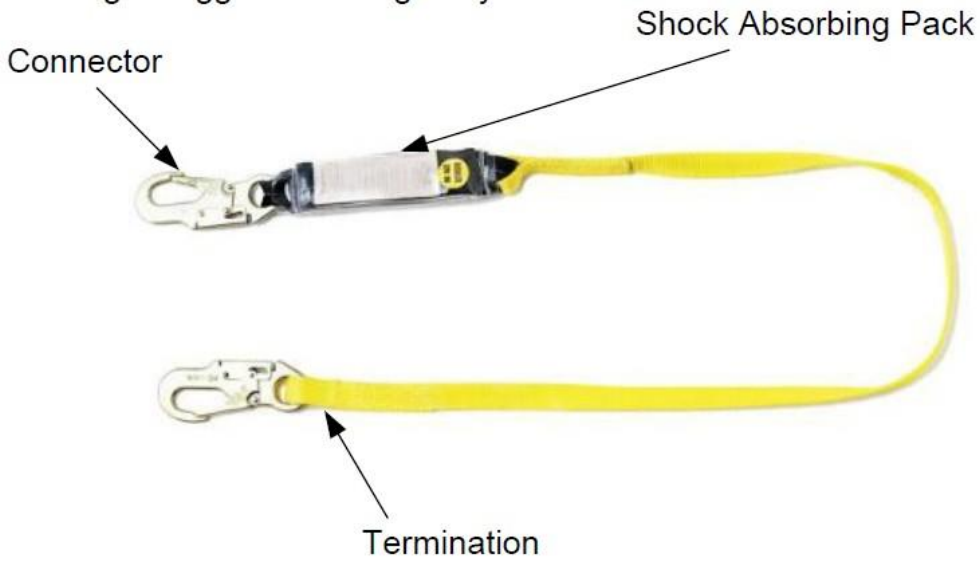
		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Cover	Casing

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors – Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.

If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

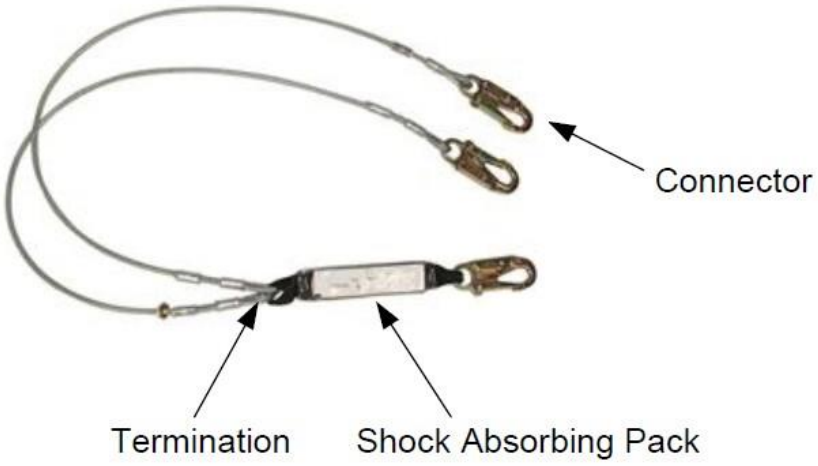
Lanyard Condition

Single Legged Webbing Lanyard

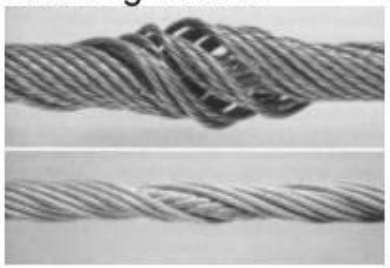


Webbing and Stitching Fraying

Double Legged Wire Rope Lanyard



Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix G: Fall Protection Self-Retracting Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	Housing	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Casing	Attach Point	Hardware

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors– Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.
Housing – Inspect for any signs of cracks, dents, rust, or missing hardware. Attachment point is secure and free of corrosion, dents, cracks, or discoloration.

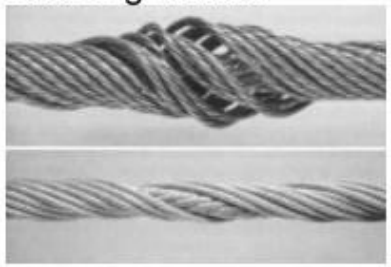
If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

Self-Retracting Lanyard Condition

Self Retracting Lanyard – Cable Rope

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix H:

Fall Protection Hardware Inspection Form

Carabiners & Snaphooks

Carabiner **OR** Snaphook (circle one)

Model_____

Serial #_____

Manufacture Date_____

Lot #_____

Purchase Date_____

P = PASS F = FAIL

		Label or Markings	Load Ratings (strength)		Specifications		Inspection			Comments
Date	**Inspector Initials**	Markings	Gate (≥16 kN)	Tensile (≥22.5 kN)	Self-Closing / Locking	Smooth Operation	Main Body	Spine	Gate & Hook-nose	

Labels & Markings – Labels or markings must be intact and legible. All acceptable carabiners and snaphooks must have a strength rating (in kilo-Newton (kN)) engraved/etched into the spine (minimum 16 kN=gate and 22.5 kN=tensile load).

Hardware Specifications– All carabiners and snaphooks must be self-closing and self-locking. The gate and lock should operate smoothly. Gates must fully close and engage nose of hook.

Inspection-Inspect for corrosion, cracks, sharp edges, burrs, bending, distortion, or other deformities. If any defective condition is identified, immediately remove the device from service and destroy.

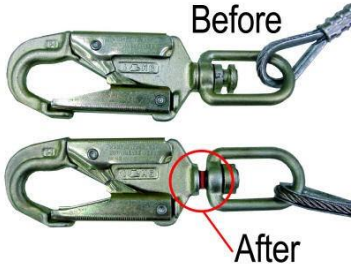
If device has been subjected to fall arrest or impact loading, remove from service and destroy.

If the hardware shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above and must be taken out of service.

Hardware Condition

Snaphook is a connector comprised 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. Snaphooks are required to be self-closing with a self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection.

Compliant connectors are stamped with strength ratings.



Carabiner is a connector generally shaped in a trapezoidal or oval body with a closed gate, or similar arrangement, that may be opened to attach another object and, when released, automatically closes to retain the object.

Appendix I:

Fall Protection Anchor Inspection Form

Anchor #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Anchor Type_____

P = PASS F = FAIL

		Label	**Hardware (if applicable)**		**Mounting Plates**			**Webbing (if applicable)**		**Stitching (if applicable)**	**Cable**	
Date	**Inspector Initials**	Label	Metal Condition	Connection Ring	Rivets	Welds	Connection Points	Main Body	Termination	Termination	Main Body	Termination

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware and Mounting Plates– Inspect for any corrosion, nicks, pitting, burn marks, bends, missing screws, damaged welds, or cracks. All rivets must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
If any portion of the anchor shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the anchor receives any "Fails" or "F's" in the table above, then that anchor must be taken out of service.

Anchor Condition

Cable Sling Anchor

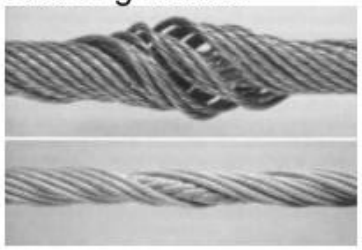
Temper Anchor

Welded Roof Anchor

Cross Arm Strap Anchor

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage


DANGER
HOLE COVER
DO NOT REMOVE


CAUTION
FALL HAZARD
* OPEN PIT *




Fall Protection Program for General Industry

29 CFR 1910.140, subpart I, Personal Fall Protection Systems
29 CFR 1910, subpart D, Walking-Working Surfaces





Velocity Truck Rental & Leasing – Rancho Domingez
18890 S. Susana Rd.
Rancho Dominguez, CA 90221

This Fall Protection Program for General Industry has been developed in accordance with the requirements of Title 29, Sections 1910.140 and 1910.21-30 of the Code of Federal Regulations. I have reviewed this program for completeness and the provisions contained herein will apply to operations at Velocity Truck Rental & Leasing – Rancho Dominguez

Signature _____ Title _____

Printed Name _____ Date _____

TABLE OF CONTENTS

OSHA REGULATIONS

PROGRAM OVERVIEW

Effective January 2017, the Occupational Safety and Health Administration (OSHA) updated the requirements for walking-working surfaces and slip, trip, and fall hazards (29 CFR 1910, subpart D), and provided additional requirements for personal fall protection systems (29 CFR 1910.140, subpart I) for employers in general industry.

In response to the updated requirements, KPA has developed a Fall Protection Program for general industry employers. The program provides accepted practices for walking-working surfaces as required in the 2016 update of 29 CFR 1910 subpart D, and for the implementation of 29 CFR 1910.140, subpart I, Personal Fall Protection Systems.

Falls from heights and falls on the same level are among the leading causes of serious work-related injuries and deaths. The requirements were revised to better protect employees in general industry from these hazards by updating standards and adding training and inspection requirements.

This program should be made available to all employees since walking-working surfaces affect every person, in every department, performing every activity to some degree. Fall protection systems will not affect everyone, however, employees need to be aware of when, and what kind of fall protection system is required in identified areas.

PURPOSE

The purpose of the Fall Protection Program is to provide criteria for the recognition, control and/or elimination of potential fall hazards which includes slips, trips and falls on the same level (walking-working surfaces), and elevated falls at a level of 4 feet or greater that may require the use of fall protection systems.

The program is designed to explain:

- The requirements for performing workplace hazard assessments;
- How to identify the most common fall hazards;
- The appropriate actions to take to prevent slip, trip and fall incidents;
- How to select the appropriate fall protection systems; and
- The options, recommendations and guidance on how to comply with the updated and added requirements of the regulations.

Effective program implementation requires support from all levels of management. The location manager, and/or their designee, is responsible to ensure program requirements are fulfilled. The program encompasses the total workplace, regardless of the number of employees or the number of work shifts. This applies to all facilities and field operations where personnel could be exposed to fall hazards of 4 feet or greater.

- OSHA defines “walking-working surface” as any horizontal or vertical surface on which an employee walks, works, or gains access to a workplace location. Employers are required to ensure walking-working surfaces are kept in a clean and orderly condition in all places of employment and during all work activities.
- “Fall protection” is any device, equipment, or system that prevents an employee from falling from an elevation or minimizes the negative effects of such a fall.

- This Fall Protection Program is not designed for the construction industry. Fall protection in construction applies when working at elevated heights of 6 feet or greater. Requirements for construction can be found at 29 CFR 1926, subpart M.

If feasible, fall hazards must first be controlled by using engineering controls. When engineering controls are not feasible, then administrative controls, personal fall arrest systems (PFAS) and training must be implemented. When using PFAS, employees are to be connected to an anchor point at all times (100% tie-off).

In order to determine if a Fall Protection Program is required or appropriate for a facility, the location manager, or his/her designee, should complete a preliminary fall hazard assessment to identify potential areas or tasks that might require fall protection. The Preliminary Fall Hazard Assessment Form (Appendix A) can be used to document the findings of the assessment. In addition, a third party (Risk Management Consultant) may be used to assist in completing this assessment.

RESPONSIBILITIES

Location manager

The location manager, or his/her designee, is responsible for ensuring the requirements of the Fall Protection Program are fulfilled. Administration of the program will require sufficient knowledge of hazard recognition and fall protection system requirements, and include the following actions:

- Assess all areas of the workplace to identify potential fall hazards;
- Select and provide appropriate fall protection systems and equipment, as needed or required;
- Ensure employees are trained in the proper use of fall protection systems and equipment;
- Enforce the use of selected fall protection systems and equipment;
- Ensure all fall protection systems and equipment are inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis;
- Ensure fall protection systems are installed and/or set up by a qualified or competent person; and
- Ensure fall protection procedures are followed.

Qualified person

“Qualified” describes a person who has a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has the ability to solve or resolve problems relating to fall protection matters.

- The qualified person must have a thorough understanding of the following:
    - Recognition of different types of fall hazards;

- Procedures to minimize fall hazards;
- Correct procedures for installing, inspecting, operating, maintaining and disassembling fall protection systems;
- Correct use of personal fall protection systems and other equipment;
- Use of fall protection systems and equipment, manufacturer limitations, and fall protection standards; and
- The role of employees in fall protection plans (as applicable).

Competent person

"Competent" describes a person who is capable of identifying existing and predictable hazards in any component of a personal fall protection system, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- The competent person must:
  - Have enough experience and knowledge to know when to call a qualified person;
  - Conduct a fall hazard survey and re-evaluate as work progresses;
  - Understand personal fall protection systems, components of the systems, and how they operate;
  - Ensure all personnel working at heights are trained;
  - Perform inspections of personal fall protection systems prior to each use;
  - Ensure the fall protection system is taken "out of service" following impact loading so all components can be inspected;
  - Ensure a rescue plan is in place in the event an employee falls; and
  - Participate in the incident investigation, if one occurs.

Employees

Employees are responsible for the following:

- Attend all appropriate training;
- Inspect fall protection systems and equipment prior to each use in accordance with manufacturer's guidelines and instructions;
  - Equipment that has been subjected to a fall or impact loading must be removed from service until inspected by a certified and qualified fall protection specialist, competent person, qualified professional engineer or the manufacturer.
- Utilize fall protection systems and equipment, as needed or required;
- Wear all required personal protective equipment (PPE);
- Report hazardous conditions or other health and safety concerns to your supervisor immediately;
- Report incidents, or near-miss incidents to your supervisor immediately; and
- Comply with all aspects of this program.

TRAINING

Ensure employees who are exposed to fall hazards, or who use fall protection systems, receive proper training that includes refresher training when necessary.

- **Training must be performed by a qualified person.**
- **Training must be understandable.** The employer must provide information and training to each employee in a manner that the employee understands.
- **Documentation.** Prepare a written certification record which includes the name of the employees trained, the date(s) of training, and the signature of the person who conducted the training.

Fall hazards

Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses fall protection systems. Employers must ensure employees are trained in at least the following topics:

- The nature of the fall hazards in the work area and how to recognize them;
- The procedures to be followed to minimize those hazards;
- How to estimate free fall distance;
- The correct procedures for selecting, installing, inspecting, operating, maintaining, and disassembling the fall protection systems that the employee uses;
- The limits of the fall protection system; and
- The correct use of personal fall protection systems and equipment including, but not limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

Equipment hazards

The employer must train each employee in the proper care, inspection, use and storage of fall protection systems and equipment prior to use.

- **Dock boards.** Employees must be trained to properly place and secure dock boards to prevent unintentional movement.
- **Rope descent system (RDS).** Employees who use a RDS must be trained in the proper rigging and use of the equipment in accordance with 29 CFR 1910.27.
- **Ladders.** Employees must be trained on how to safely use different types of ladders.
    - Fixed ladders. Employers are required to provide fall protection systems on fixed ladders that extend more than 24 feet above a lower level.
        - New fixed ladders over 24 feet must be equipped with a ladder safety system or personal fall protection system (effective November 19, 2018).
        - Existing fixed ladders over 24 feet must be equipped with a cage or well as required by the existing rule, or a ladder safety system or personal fall protection system as required by the final rule.

Retraining

The employer must retrain an employee when there is reason to believe that the employee does not have the understanding and/or skills required to use fall protection systems or equipment safely. Situations requiring retraining include, but are not limited to, the following:

- When changes in the workplace render previous training inadequate or obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training inadequate or obsolete;
- When inadequacies are identified in an employee's knowledge or use of fall protection systems or equipment;
- When the employee performs any task, or uses equipment in an unsafe manner;
- When the employee is involved in an incident, or near-miss incident that relates to slips, trips and falls, or fall protection systems; or
- Any time fall protection equipment or procedures fail.

FALL PROTECTION PROCEDURES

In addition to ensuring walking-working surfaces are maintained in an appropriate condition, the following procedures provide guidance on how to assess slips, trips and falls, and fall-from-height hazards of 4 feet or greater.

Walking-working surfaces

- Inspect walking-working surfaces regularly and maintain surfaces in a safe condition. The Walking-Working Surfaces Inspection Form (Appendix B) can be used to document these inspections.
    - Determine a frequency of inspection that is adequate to identify and address hazards in a timely manner.
    - Perform inspections as determined.
    - Conduct inspections when workplace conditions, circumstances, or events occur that warrant an additional check to ensure walking-working surfaces are safe.
- Ensure all places of employment including passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, sanitary, and if feasible, dry condition.
- Maintain drainage in areas where wet processes are used, and provide dry standing places such as false floors, platforms and mats, if feasible.
- Maintain walking-working surfaces free of sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, ice, and other slip, trip, and fall hazards.
- Correct or repair any hazardous walking-working surface conditions prior to employee use.
    - Guard the hazard to prevent employees from using the walking-working surface if the hazard cannot be immediately corrected.
    - A qualified person must perform or supervise any correction that may affect the structural integrity of a walking-working surface.

- Ensure each walking-working surface can support the maximum intended load for that surface.
- Ensure there is sufficient clearance in aisles, at loading docks, through doorways and wherever turns or passage must be made when using mechanical handling equipment.
- Provide standard guardrails at every stairway or ladderway floor opening in accordance with applicable OSHA requirements (29 CFR 1910.28).
- Provide skylight floor openings/holes with a standard skylight screen or fixed standard railing on exposed sides.

Basic fall protection

- Perform an assessment of the workplace to identify potential slips, trips and falls, and fall from heights hazards.
- Detail the required steps to take to protect employees from fall hazards. The Fall Hazard Assessment Form (Appendix C) can be used to document fall hazards.
- Identify the appropriate fall protection systems and equipment to use when hazards cannot be eliminated.
    - Fall protection systems and equipment must be selected by a qualified person.
- Provide training to personnel exposed to fall hazards that includes:
    - Recognition of fall hazards;
    - Understanding fall protection systems and equipment; and
    - Familiarity and use of personal fall arrest systems, equipment and procedures.
- Ensure that safe access and egress to elevated work areas are provided.
- Consider operational requirements when designing fall protection for elevated heights.
- Document the load rating of anchor points to be used with PFAS, as determined by a qualified person or professional engineer.
- Fall protection is not required on the working side of platforms used at loading racks, loading docks, and teeming platforms when it is not feasible. The working side exception only applies when the employer demonstrates infeasibility and:
    - The work operation is in process;
    - The employer limits access to the platform to “authorized” employees; and
    - The employer trains authorized employees to recognize fall hazards and understand the procedures to minimize them

EXCEPTIONS

There are four exceptions from the 4 foot trigger height to use fall protection:

1. **Over dangerous equipment**
    - When employees are less than 4 feet above dangerous equipment, they must be protected from falling into or onto the equipment.
2. **On fixed ladders**

- Employers are required to provide fall protection to those fixed ladders that extend more than 24 feet above a lower level.

3. **Use of motorized equipment on dock boards**
    - Employees often use motorized equipment to move large and/or heavy material across dock boards. This equipment may not fit on a dock board that has guardrails or handrails.
4. **Around repair, service, and assembly pits**
    - Employers do not have to provide fall protection systems for service, repair, or assembly pits that are less than 10 feet deep, provided the employer:
        - Limits access within 6 feet of the pit edge to trained, authorized employees;
        - Applies floor markings or warning lines and stanchions at least 6 feet from the pit edge; and
        - Posts visible caution signs that state “Caution—Fall Hazard-Open Pit,” or similar verbiage.
    - When two or more pits in a common area are not more than 15 feet apart, the employer may comply by placing contrasting floor markings at least 6 feet from the pit edge around the entire area around the pits.

PROTECTION FROM FALLING OBJECTS

The requirements listed in the walking-working surface regulation are not only designed to protect employees from falls on the same level and falls from heights, but also to protect employees from having objects fall on them.

- Protect employees from falling objects by implementing one or more of the following:
    - Erect toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;
    - Erect canopy structures or keep potential falling objects away from an edge, hole or surface opening; or
    - Guard/barricade the area where objects could fall and minimize or prohibit employee access.
- Install toeboards at the walking surface level of a guardrail system. Toeboards are designed to prevent materials, tools, and equipment from falling to a lower level, and to protect employees from falling objects. Ensure toeboards used for falling object protection:
    - Are erected along the exposed edge of the overhead walking-working surface;
    - Have a minimum vertical height of 3.5 inches as measured from the top edge of the toeboard to the level of the walking-working surface;
    - Have a minimum height of 2.5 inches when used around vehicle repair, service, or assembly pits;
        - Toeboards may be omitted around vehicle repair, service, or assembly pits when the toeboard would prevent access to a vehicle that is over the pit.

- Do not have more than a ¼ inch opening above the walking-working surface;
- Are solid or do not have any opening that exceeds 1 inch; and
- Are capable of withstanding, without failure, a force of at least 50 lbs in any downward or outward direction.

Ensure there is a good housekeeping program in place to identify and remove hazards, and provide employees a safe place to work. When materials and debris are properly cleaned up and tools are put in proper storage areas, the risk of injury from falling objects can be greatly reduced.

REQUIREMENTS OF THE FINAL RULE

Inspections of walking-working surfaces

Employers are required to perform inspections of walking-working surfaces on a regular basis, and as necessary, to identify hazards and address them in a timely manner. Although it may seem the rule will have no impact on your facility, consider all areas or tasks that might be covered by the regulations.

Common fall hazards may include, but are not limited to the following:

Floor holes	Mezzanines	Vehicle repair, service & assembly pits
Floor openings	Overhead storage areas	Work performed on high-profile vehicles: sprinter vans, commercial trucks, RVs, railcars
Wall openings	Unprotected elevations/platforms	Parking lots/parking areas
Aisles/walkways	Work over dangerous equipment	Scaffolding
Stairways	Work over chemical tanks	Aerial lifts
Open sides & edges (leading edge)	Roof openings	Excavations
Dock boards	Skylights	Grain bins
Loading docks	Ladders	Step bolts

Fall protection systems

Employers are no longer required to make guardrails the primary means of fall protection, they may now choose from a range of accepted fall protection systems and equipment appropriate for the situation. Following are suggested fall protection options:

- **Covers.** Protect employees from hazards associated with holes by the use of covers. A hole is a gap or void 2 inches or more in a floor, roof, deck, or other walking/working surface that presents hazards due to:
    - Employees falling through holes;
    - The hole's design creating a trip hazard; or
    - Objects falling through the hole and injuring employees below.
    - Covers for permanent holes are typically built for a specific purpose (i.e. permanent access points, manhole covers, and trap doors) and are only effective when they are properly designed and secured in place.
    - Effective hole covers are:

- Large enough to provide appropriate overlap to prevent employees from falling through;
- Strong enough to support at least twice the anticipated weight imposed by the heaviest load;
- Left in place over the hole until access is needed;
- Secured and do not create trip hazards; and
- Marked clearly as “Hole Cover” or “Open Hole”

- **Guardrail System.** Guardrail systems are installed on open sides of elevated locations. The guardrail consists of a vertical barrier with a top-rail, mid-rail, (toeboard as appropriate), and intermediate vertical rails erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.
  - Guardrails are common for storage areas on elevated levels, mezzanines and at loading docks.
  - Guardrail systems must meet the following criteria:
    - Top-rails must be installed 42 inches (+/- 3 inches) above the walking/working surface and be capable of withstanding a minimum force of 200 lbs in any outward or downward direction within 2 inches of the top edge;
      - The top-rail must not deflect to a height of less than 39 inches above the walking-working surface when the test load is applied.
    - Mid-rails must be installed 21 inches above the walking/working surface and be capable of withstanding a minimum force of 150 lbs in any outward or downward direction;
    - Posts must be spaced not more than 8 feet apart on centers;
    - There are no openings more than 19 inches wide in any guardrail system;
    - Do not use plastic or steel banding as top-rail;
    - Provide top-rails and mid-rails of at least ¼ inch thickness or diameter, and smoothly surfaced to prevent cuts and punctures; and
    - Add high-visibility flags to the top-rail when using wire rope for top-rails.
  - Erect guardrails on all sides around holes or floor openings.
  - Install a gate or offset guardrails when they are used around holes that provide access, such as ladder ways, so that a person cannot walk directly into the floor opening.
  - Place a chain, gate or removable guardrail across the access point to hoisting operations when operations are not taking place.
  - Provide guardrail systems or other fall protection systems at **all** locations above dangerous equipment, even if not 4 feet or greater.

- Provide guardrails at all wall openings where the outside bottom edge of the 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.
- Erect guardrail systems on all unprotected sides or edges of ramps and runways.

- **Personal Fall Protection System.** A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.
  - **Personal Fall Arrest System (PFAS).** A personal system used to prevent a falling employee from contacting a lower level. A PFAS consists of a full-body harness, anchorage, connector, and may include a lanyard, deceleration device, lifeline, or suitable combination of these.
    - Consider using a PFAS when performing work on elevated surfaces where guardrails are not a convenient or practical solution, such as on top of high profile vehicles.
    - Requirements for a PFAS include training on inspection, use and proper maintenance and storage.
    - Inspect all fall protection components for wear, damage, and deterioration prior to each use.
    - Remove damaged or defected equipment from service immediately
    - Use only full body harnesses, shock-absorbing lanyards, horizontal lifelines, self-retracting lifelines and anchorage points which meet the following criteria:
      - Limit the maximum arresting force on an employee to 1,800 lbs;
      - Prevent the employee from free falling more than 6 feet or from contacting any lower level;
      - Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet;
      - Are strong enough to withstand twice the potential impact energy of the employee free falling a distance of 6 feet; and
      - Sustain the employee within the system/strap configuration without making contact with the employee's neck and chin area.
    - All components of a personal fall arrest system meet the specifications of 29 CFR 1910.140, Personal Fall Protection Systems.
    - Full body harness. Harness that consists of straps that secure around the torso of the employee in a manner to distribute the force of a fall over the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
    - Connector. A device which is used to couple (connect) parts of the PFAS. Three common connectors include:

- Snap hook. Automatic-locking with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or suffering permanent deformation
    - Non-locking snap hook with a self-closing gate that remains closed, but not locked, is prohibited
- D-ring. A metal loop with a spring-hinged side that can quickly and reversibly connect components.
    - Attachment of the D-ring to the body harness must be located in the center of the wearer's back near shoulder level
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or incurring permanent deformation
- Carabiner. A connector usually oval shaped body with a closed gate that may be opened to attach another object, and when released closes automatically.
    - Must be capable of sustaining a minimum tensile load of 5000 lbs
    - Must be proof-tested to a minimum tensile loaf of 3600 lbs without cracking, breaking, or incurring permanent deformation

- Anchor point. Secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be:
    - Capable of supporting at least 5,000 lbs (3,600 lbs if engineered/ certified by a qualified person) per person; and
    - Independent of any anchor point being used to support or suspend platforms.
- Lanyard. A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body harness or body belt to a deceleration device, lifeline, or anchorage.
    - Lanyards must be compatible with all connectors used.
    - Lanyards must be protected from being cut, abraded, melted, or otherwise damaged.
- Lifeline. A flexible line for connection to an anchorage at one end so as to hang vertically (vertical lifeline), or for connection to anchorages at both ends so as to stretch horizontally (horizontal lifeline), and serves as a means for connecting other components of the system to the anchorage.

- Provide separate vertical lifelines for each employee using a vertical lifeline.
- A self-retracting lifeline/lanyard is a device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Self-retracting lifelines and lanyards which limit free fall to 2 feet or less must be capable of sustaining a minimum tensile load of 3,000 lbs in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall to 2 feet or less, rip-stitch, and other shock-absorbing lanyards must be capable of sustaining a minimum tensile load of 5,000 lbs in the fully extended position.

▪ Deceleration device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lanyard, etc. that serves to dissipate energy during a fall.

▪ Train employees on how to properly fit (including weight limitations) and wear a full-body harness, identify proper tie-off techniques and connections, and determine suitable anchorage points.

▪ Instruct employees to rig fall protection to prevent a free fall more than 4 feet and not to contact any lower level.

▪ Do not tie off to guardrail systems or hoists.

▪ Require employees to remain tied off 100% of the time when at or above 4 feet, or if less than 4 feet over hazardous equipment.

▪ Remove from service any component of a personal fall protection system that has been subjected to impact loading.

- Do not reuse equipment until inspected by a qualified or competent person, professional engineer, or manufacturer and determined to be undamaged.
- Most equipment is not intended for reuse following impact loading.

▪ ***Use of a body belt in a PFAS is prohibited!***

o **Rescue.** When personal fall arrest systems are used, special consideration must be given to promptly rescuing an employee should a fall occur. The Fall Protection Rescue Assessment (Appendix D) can be used to document this assessment.

▪ Evaluate the availability of rescue personnel, ladders, or other rescue equipment for situations where an employee cannot perform self-rescue.

▪ Post emergency contact information if relying on outside organizations for rescue.

▪ Employees can perform self-rescue after the fall has arrested if devices have descent capability.

- **Travel Restraint System.** A combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support (full-body harness or body belt) used to eliminate the possibility of an employee going over the unprotected edge or side of a walking-working surface.
    - Use in areas where sufficient anchor points for PFAS are not available.
    - Requirements for snap hooks, D-rings and other connectors are the same as listed in the PFAS section of this program.
    - This system does not support the employee's weight but it is used to prevent employees from reaching the fall hazard, such as an unprotected side or edge.
- **Positioning System.** A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and perform work with both hands free.
    - A system designed to hold and sustain an employee at a work location and limit the free fall to 2 feet or less.

- **Ladder Safety System.** A system or device attached to a fixed ladder designed to eliminate or reduce the possibility of an employee falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and full body harness or body belt.
    - Cages and wells are not considered ladder safety systems.
- **Safety Net System.** A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling employees before they make contact with a lower level or obstruction. Safety nets can be used where the use of ladders, scaffolds, catch platforms, temporary floors, or safety lines are impractical.
    - Install safety nets as close as possible under the walking/working surface on which employees are working, but never more than 30 feet below this level.
    - Safety nets must extend outward horizontally from the outermost projection as follows:
        - 8 feet for a vertical drop of up to 5 feet
        - 10 feet for a vertical drop between 5 and 10 feet
        - 13 feet for a vertical drop more than 10 feet but not to exceed 30 feet
    - Install safety nets with enough clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
    - Remove all materials, scrap, equipment, and tools which have fallen into the net as soon as possible, but at least before the next work shift.
    - Safety nets must be inspected at least once a week for wear, damage, and other deterioration, and after any occurrence which could affect the integrity of the safety net system. Defective components shall be removed from service and defective or damaged nets are not to be used.

Scaffolding requirements

The existing scaffolding standards for general industry will be replaced with those currently in use for construction (29 CFR 1926.450).

Fixed ladders

The following requirements apply to fixed ladders that extend more than 24 feet above a lower level.

- **Existing fixed ladders.** Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **New fixed ladders.** Each fixed ladder installed on and after November 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.
- **Replacement.** When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **Final deadline.** On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system, or a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section, the employer must ensure:

- The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections; and
- The ladder has rest platforms provided at maximum intervals of 150 feet.

The employer must ensure ladder sections having a cage or well:

- Are offset from adjacent sections; and
- Have landing platforms provided at maximum intervals of 50 feet.

The employer may use a cage or well in combination with a personal fall arrest system or ladder safety system provided that the cage or well does not interfere with the operation of the system.

Rope descent systems (RDS) and anchorage certification

- RDS consists of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seat board. These systems are commonly used to perform elevated work such as window washing.
- RDS requires building owners to provide, and employers to obtain, proof that permanent RDS anchorages have been properly inspected, tested, and maintained, and are able to support 5,000 lbs per attached employee. RDS are prohibited at heights of 300 feet above grade unless all other systems are proven to be impractical or pose a greater hazard.

Phase-out of the “Qualified Climber” exception in outdoor advertising

Although this requirement will not apply to many employers, it is important to understand how the regulations might apply.

- The final rule requires all employees to comply with ladder safety and fall protection requirements when climbing fixed ladders on billboards over 24 feet tall.

- Employers have 2 years to install systems that comply with either the existing standard (i.e., cages and wells) or the new ladder safety and personal fall protection standards.

INSPECTIONS

Inspection of fall protection systems

- PFAS must be inspected prior to each use for wear, damage, defects and other deterioration.
    - Remove defective components from service immediately and either destroy the equipment or label it “out of service” or “damaged.”
- A qualified or competent person must inspect each PFAS at least annually, or more often if recommended by the manufacturer.
    - Document the date of each inspection.
- Use the following criteria to help maintain equipment in good working condition:
    - Full Body Harness. The Fall Protection Full Body Harness Inspection Form (Appendix E) can be used to document these inspections.
        - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
        - Inspect harness for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside and outside of the body pad.
        - Examine all nylon webbing to ensure that there are no burn marks which could weaken the material.
        - Verify there are no torn, frayed, or broken fibers; pulled stitches; or frayed edges anywhere on the harness.
        - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame.
        - The tongue or billet of the belts receive heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion.
            - Never punch additional holes in the harness.
        - Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.
        - Examine the condition of D-ring rivets and D-ring metal wear pads (if any). Discolored, pitted or cracked rivets might indicate chemical corrosion.
        - Inspect friction buckles for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

- Inspect the sliding bar buckles and buckle frames for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.
- Store harnesses in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
- Remove harnesses that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.

- Lanyards/Shock-Absorbing Lanyards. The Fall Protection Lanyard Inspection Form (Appendix F) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Visually inspect shock absorber (if present) for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
  - Inspect the shrink-wrapped casing of the shock absorbing pack to ensure that it has not been expanded or damaged. Impact indicators must not show expansion.
  - Inspect webbing for cuts, holes, frays, discoloration, paint contamination, heat and excessive wear damage. Termination is the webbing end which meets the connectors.
  - Inspect cable for bird caged wire or cable separation.
  - Inspect connectors for corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
  - Inspect the snap hooks for distortions in the hook, locks, and eye.
  - Check carabiner for excessive wear, distortion, and lock operation.
  - Ensure that all locking mechanisms seat and lock properly.
  - Store lanyards in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
  - Remove lanyards that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.
- Self-Retracting Lanyards/Lifelines. The Fall Protection Self-Retracting Lanyard Inspection Form (Appendix G) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Inspect the body to ensure there is no physical damage.
  - Make sure that all nuts and rivets are tight.
  - Make sure that the entire length of the nylon strap/wire rope retracts freely, and is free from cuts, burns, abrasions, kinks, knots, broken stitches/strands and excessive wear.

- Test the unit by pulling sharply on the lanyard/ lifeline to verify thatthe locking mechanism is operating correctly.
- Conduct and document a monthly inspection of all self-retracting lanyards/lifelines by a qualified or competent person.
- Return the device to the manufacturer for service per manufacturer's specifications (usually annually).
- Inspect visually and functionally after a fall or impact loading.

- Snap Hooks and Carabiners (Hardware). The Fall Protection Hardware Inspection Form (Appendix H) can be used to document these inspections.
  - Ensure the load rating is either forged or etched into the spine of the carabiner or snap hook and is legible.
  - Verify:
    - There are no hook and eye distortions
    - There are no cracks or pitted surfaces
    - The keeper latch is not bent, distorted, or obstructed
    - The keeper latch seats into the nose without binding
    - The keeper spring securely closes the keeper latch
  - Test the locking mechanism to verify that the keeper latch locks properly.
  - All snap hooks involved in a fall should be destroyed.
- Anchor Points. The Fall Protection Anchor Inspection Form (Appendix I) can be used to document these inspections.
  - A qualified or competent person must perform an annual inspection of all tie-off and anchor points.
  - Maintain documentation of anchorage load ratings and inspections.
  - Inspect anchorages for integrity and attachment to solid surface prior to use.
- Horizontal Lifelines
  - Horizontal lifelines must be designed, installed, and used under the supervision of a qualified person.
  - Lifelines are part of a complete personal fall arrest system and must maintain a safety factor of at least 2.
  - Inspect the structural integrity of line and anchors before each use.
  - A qualified or competent person will complete and document an annual inspection.

STORAGE AND MAINTENANCE

Maintenance and storage of fall protection equipment

To ensure that fall protection systems are ready and able to perform as designed, a preventative maintenance schedule should be implemented.

Following are basic requirements of a maintenance program, however, you should follow manufacturer's recommendations for storage and maintenance, if provided.

- Documented inspections must be performed annually by a qualified or competent person, or more often if required by the manufacturer.
- Inspect all fall protection equipment prior to each use and verify the last documented inspection date.
- Store personal fall arrest equipment in a cool, dry, clean location and in a manner that maintains its shape. (It is preferable to hang harnesses)
    - Never store PFAS equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow).
    - Never store equipment in areas with excessive heat, chemicals, fumes, corrosive elements or moisture.
    - Consider possible exposure to radiation, electrical conductivity, and chemical effects when storing equipment
- Maintain a PFAS in a clean and dry condition so it is ready for use.
    - Clean with a mild, non-abrasive soap and hang to dry.
    - Never force dry or use strong detergents in cleaning.
- Never use equipment for any purpose than its intended use (personal fall arrest).
- Once a PFAS is exposed to a fall or impact loading, label "out of service" and do not use until inspected by a qualified or competent person, or returned to the manufacturer for inspection.
    - Equipment that is "out of service," damaged, or in need of maintenance will be tagged as unusable and will not be stored in the same area as serviceable equipment.
    - Components of a PFAS may have to be destroyed after impact loading.

EFFECTIVE DATES

Most of the requirements of the final rule became effective on January 17, 2017, however, some provisions of the rule have delayed effective dates:

By…	Employers must ensure that…
November 20, 2017	Anchorages for rope descent systems must be inspected and certified, as applicable.
November 19, 2018	New fixed ladders over 24' tall must be equipped with ladder safety systems or personal fall protection systems.
	Existing fixed ladders over 24' tall must be equipped with a cage or well per the existing rule, or a ladder safety system or personal fall protection system per the final rule.
November 18, 2036 (20 years after initial publication)	All fixed ladders over 24' tall are equipped with ladder safety system or personal fall protection systems.

DEFINITIONS

Anchorage - A secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt – A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness - Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person – A person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector – A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.

Deceleration device - Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip-stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber - A device that limits shock-load forces on the body.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system - A system specifically designed to secure, suspend, or assist in retrieving an employee in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall - The act of falling before a personal fall 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 belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

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

Lanyard - A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading edge - The edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which

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

Opening - A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system - A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system - A body belt or 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.

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.

Retractable lifeline - A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope grab - A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

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

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

Snap-hook - A connector comprised 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 are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard - A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface - Any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system - A 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 guardrail, body belt, or safety net systems to protect employees in the area.

Work area - That portion of a walking/working surface where job duties are being.

APPENDICES

Appendix A: Preliminary Fall Hazard Assessment

Appendix B: Walking-Working Surfaces Inspection Form

Appendix C: Fall Hazard Assessment Form

Appendix D: Fall Protection Rescue Assessment

Appendix E: FP Full Body Harness Inspection Form

Appendix F: FP Lanyard Inspection Form

Appendix G: FP Self-Retracting Lanyard Inspection Form

Appendix H: FP Hardware Inspection Form

Appendix I: FP Anchor Inspection

Appendix J: Hole Cover Sign-Example

Appendix K: Open Pit Sign-Example

Appendix A Preliminary Fall Hazard Assessment

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	

Section 1: Fall Hazard Identification (See page 2 for additional guidance) ***Will employees be operating in close proximity to any of the following:***		
1. Are there unprotected wall / floor openings that are 4′ or more above a lower level?	☐ Yes	☐ No
2. Are there unprotected edges (4′ above lower level) or leading edges (6′ above lower level)?	☐ Yes	☐ No
3. Are there open holes in floors (i.e. floor drains, manholes)?	☐ Yes	☐ No
4. Are there openings in roofs that could allow a fall to a lower level (i.e. roof hatches, ladder access, skylights)?	☐ Yes	☐ No
5. Is work being performed on roofs of high-profile vehicles or rail cars that are 4′ or higher?	☐ Yes	☐ No
6. Are there elevated storage areas with unprotected sides or edges (i.e. mezzanines)?	☐ Yes	☐ No
7. Are employees exposed to open repair, service or assembly pits (lube)?	☐ Yes	☐ No
8. Are employees performing work within 15′ of the edge of the facility roof?	☐ Yes	☐ No
9. Are employees climbing fixed ladders over 24′ in height?	☐ Yes	☐ No
10. Are employees exposed to excavations, cliffs, or open pits over 4′ deep? (Construction is 6′ deep)	☐ Yes	☐ No
11. Are employees using aerial lifts such as manlifts, boom lifts, spider lifts, vertical personnel lifts, scissor lifts, bucket trucks, cherry pickers?	☐ Yes	☐ No
12. Are there any other unprotected elevated work surfaces that are 4′ or more above a lower level, or 6′ or more above a lower level in construction?	☐ Yes	☐ No

Section 2: Identification of Requirement for Fall Protection	
For facilities in general industry, the trigger height for fall protection systems is 4′ or more above a lower level.	
For facilities or activities in construction, the trigger height for fall protection systems is 6′ or more above a lower level.	
Employees working or operating above dangerous equipment (regardless of height) must be protected from falling into the equipment.	
If you have answered "No" to all questions in Section 1, then no fall hazards have been identified and no further action is necessary at this time.	☐
If you only answered "Yes" to question #7, see page 2 for requirements to proceed.	☐
If you have answered "Yes" to other questions in Section 1, then please review and select an option in Section 3.	☐

Section 3: Fall Protection Control	
The identified fall hazards at this location will be managed by installing engineering controls that comply with 29 CFR 1910 Subpart D (general industry) or 29 CFR 1926 Subpart M (construction). Additional fall protection systems, procedures, or PPE will not be necessary at this time.	☐
The identified fall hazards at this location will be managed by the installation and use of fall protection systems that may include a full body harness, lanyard, self-retracting lanyard, fall restraint system, etc. A further assessment will be conducted and fall protection systems, procedures and equipment will be installed.	☐

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Section 1: Additional Guidance

1. **Unprotected Wall/Floor Opening** - A gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level. This could include an opening in guardrails on a mezzanine, an open storage landing, etc.

2. **Unprotected edges** - Any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level. This could include roofs, mezzanines, landings, etc.
   Unprotected leading edges – (construction tern) - Leading edge means the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.

3. **Open holes in floors** - A gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension. This could include open drain traps.

4. **Openings in roofs or skylights** - A gap or open space in a roof or skylight that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

5. **Unprotected roofs of high-profile vehicles** – This would include a roof used as a walking working surface at a height of 4 feet or greater. High-profile vehicles could include: tractors, trailers, semi trucks, RVs, vans, buses, rail cars, etc.

6. **Storage areas without side or edge protection** – This could include unprotected edges/sides of mezzanines, areas above offices, or landings. If an employee steps off a ladder to handle materials and the area is 4 feet or more above a lower level then a fall protection system is necessary.

7. **Open repair, service or assembly pits** – This would be an opening in the floor designed for employee entrance in order to perform work. This could include lube pits or transmission repair pits and alignment pits. (This would not include an excavation or trench)

1910.28(b)(8) *Repair pits, service pits, and assembly pits less than 10′ in depth*. The use of a fall protection system is not required for a repair pit, service pit, or assembly pit that is less than 10′ deep, provided the employer:

1) Limits access within 6′ of the edge of the pit to authorized employees trained in accordance with § 1910.30;

2) Applies floor markings at least 6′ from the edge of the pit in colors that contrast with the surrounding area; or places a warning line at least 6′ from the edge of the pit as well as stanchions that are capable of resisting, without tipping over, a force of at least 16 lbs applied horizontally against the stanchion at a height of 30″; or places a combination of floor markings and warning lines at least 6′ from the edge of the pit. When two or more pits in a common area are not more than 15′ apart, the employer may comply by placing contrasting floor markings at least 6′ from the pit edge around the entire area of the pits; and

3) Posts readily visible caution signs that meet the requirements of § 1910.145 and state "Caution-Open Pit."

8. **Facility roof** – This refers to the roof of the facility. If employees are going to be with 15 feet of the roof edge, then a fall protection system is required. Work an a HVAC system, for example.

9. **Fixed ladders over 24 feet in height** – A fixed ladder is one which is permanently attached, such as a ladder to access the roof of the building.

10. **Excavation** - The removal of earth, usually to allow the construction of a foundation, basement or to perform pipe work. If the fall distance is greater than 6 feet then a fall protection system must be installed.

11. **Aerial lifts** – This could include articulated booms, telescopic booms, forklift attachment cages designed to lift an employee, scissor lifts, etc.

Comments:

Appendix B: Walking-Working Surfaces Inspection Form
(Slip, Trip & Fall Hazards)

Company Name: Address:	Specific Location: Assessor/s:	
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

WALKING-WORKING SURFACES			
Surface Conditions:	**YES**	**NO**	**NA**
1. Floors are kept clean, orderly, sanitary and dry (except where wet processes are necessary).	☐	☐	☐
2. Where wet floors or processes are necessary, proper drainage and/or raised surfaces, dry standing platforms, mats, or other non-slip material are provided.	☐	☐	☐
3. Floors are free of leaks, spills, water, snow, ice and other slip hazards.	☐	☐	☐
4. Floors are free from protruding nails, loose boards, cracked tiles, and other tripping hazards.	☐	☐	☐
5. Holes are repaired or covered.	☐	☐	☐
6. Surfaces in poor condition are repaired or guarded by visible barricades.	☐	☐	☐
7. Carpeting and other floor mats and trim, lay flat and are securely fixed.	☐	☐	☐
8. Entryways have absorbent mats to prevent slips due to wet conditions.	☐	☐	☐
9. Changes in direction or elevation are clearly marked.	☐	☐	☐
10. Adequate headroom is provided for the entire length of all walkways.	☐	☐	☐
11. There is adequate clearance in aisles, through doorways, and at loading docks.	☐	☐	☐
12. Standard guardrails are provided at every stairway or ladderway floor opening.	☐	☐	☐
13. Floors can support the maximum intended load.	☐	☐	☐
14. Parking lots and sidewalks are free of broken pavement, potholes, gaps and cracks.	☐	☐	☐
15.	☐	☐	☐
Housekeeping Hazards:	**YES**	**NO**	**NA**
16. Work areas, aisles, and walkways are free of debris or clutter.	☐	☐	☐
17. Walkways are free of cords and wiring.	☐	☐	☐
18. Exit and entrances are unobstructed at all times.	☐	☐	☐
19. Emergency exits are clearly marked.	☐	☐	☐
20. Landings and stairways are free of debris and storage.			
21. Containers are readily available for the disposal of trash.	☐	☐	☐
22. Equipment and materials are cleaned up and stored when not in use.	☐	☐	☐
23. All spilled materials are cleaned up immediately.	☐	☐	☐
24. There are adequate supplies for clean-up, barricading, and posting wet-floor signs.	☐	☐	☐
25. Employees know where housekeeping materials are located and how to use them.	☐	☐	☐
26. Employees are trained to clean up any spills promptly and to notify others of the spill.	☐	☐	☐
27.	☐	☐	☐
Stairs, Ramps, and Guardrails:	**YES**	**NO**	**NA**
28. Changes in elevation are clearly identified.	☐	☐	☐

29. For elevation changes greater than 19 inches, either a ramp or stairs are used.	☐	☐	☐
30. Walking surfaces of ramps contrast visually and materially from the surrounding floor.	☐	☐	☐
31. Ramps and stairs have slip-resistant surfaces.	☐	☐	☐
32. Stair riser height and tread depth is uniform.	☐	☐	☐
33. Handrails are present if stairs have one or more risers.	☐	☐	☐
34. On stairways that are less than 44 inches wide that are enclosed on both sides, at least one handrail is present.	☐	☐	☐
35. On stairways that are less than 44 inches wide that and are open on one side, a stair rail or guard is present on the open side.	☐	☐	☐
36. On stairways that are wider than 44 inches, handrails are present on both sides.	☐	☐	☐
37. Handrails on stairs run the entire length of stairway and extend past the top and bottom steps.	☐	☐	☐
38. Handrails are tight, and at the proper level (between 30-38" high).	☐	☐	☐
39. Adequate lighting is provided in stairwells and landings.	☐	☐	☐
40. Guardrails are provided wherever walking surfaces are elevated more than 48 inches above the floor.	☐	☐	☐
41. Doors to stairways open onto stairway landings, not directly onto a step.	☐	☐	☐
42.	☐	☐	☐
Inspections and Administrative Controls:	**YES**	**NO**	**NA**
43. An inspection program/schedule for walking-working surfaces has been established.	☐	☐	☐
44. Employees are trained in slip, trip and fall hazard identification and prevention.	☐	☐	☐
45. A building inspection is performed to assure all work areas are well-lit.	☐	☐	☐
46.	☐	☐	☐
47.	☐	☐	☐

REQUIRED ACTIONS / RECOMMENDATIONS	
Hazard (question #)	

ADDITIONAL COMMENTS

SIGNATURE OF ASSESSOR		
* ***File a copy of this inspection report in your KPA Yellow Box for future reference.***		
Name:	Signature:	
Title:	Date:	Time:

Appendix C: Fall Hazard Assessment Form

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

FALL HAZARD ASSESSMENT CHECKLIST		
1. If industry classification is general, is the fall distance over 4 feet?	☐ Yes	☐ No
2. If industry classification is construction, is the fall distance over 6 feet?	☐ Yes	☐ No
3. Have slipping and tripping hazards been removed or controlled?	☐ Yes	☐ No
4. Can an employee enter the area without restriction and perform work?	☐ Yes	☐ No
5. Will employees be working over dangerous equipment?	☐ Yes	☐ No
6. Can conventional Fall Protection Systems be used? (i.e. guardrails, safety nets, or PFAS)	☐ Yes	☐ No
7. Are fall prevention systems such as cages, guardrails, toeboards, manlifts in place?	☐ Yes	☐ No
8. Is this area an open repair, service or assembly pit where the fall distance is less than 10 feet?	☐ Yes	☐ No
9. Have visual warnings of fall hazards been installed?	☐ Yes	☐ No
10. Can the distance a worker could fall be reduced by installing platforms, nets, etc.?	☐ Yes	☐ No
11. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ Yes	☐ No
12. Are there any falling equipment or tools hazards for the area below the working area?	☐ Yes	☐ No
13. Does this area have additional recognized hazards such as chemical sprays or hot work?	☐ Yes	☐ No
14. Is the space designated as a Permit Required Confined Space?	☐ Yes	☐ No

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

- *Potential environmental conditions that could impact safety:*

Initials	Condition	Remarks/Recommendations

- *Possible required structural alterations:*

Initials	Alteration	Remarks/Recommendations

- *Possible task modification that may be required:*

Initials	Task	Remarks/Recommendations

- *Breakdown of vertical and horizontal movement: (sketch out work task):*

FALL PROTECTION SYSTEM

- *Best Recommended Form of Fall Protection System Based on Above Conditions:*

Initial	Equipment	Remarks/Recommendations

1. Will Recommended System Have the Capability to Support or Arrest 310lbs?	☐ **Yes**	☐ **No**

- *Training Requirements:*

Initial	Requirement	Remarks/Recommendations

- *Additional Personal Protective Equipment Required:*

Initial	Requirement	Remarks/Recommendations

☐ **Approved**

AUTHORIZATION

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Fall Hazard Assessment Checklist Reference	
Question	Program Reference
If you have answered "Yes" to any of questions 1-4	"Fall Protection Procedures" - Page 7
If you have answered "Yes" to question 5	"Exceptions" - Page 8
If you have answered "No" to question 6	"Fall Protection Plans" – Page 14
If you have answered "No" to question 7	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 8 or "No" to question 9	"Exceptions" - Page 8
If you have answered "Yes" to question 10 or "No" to question 11	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 12	"Protection From Falling Objects" - Page 9
If you have answered "Yes" to questions 13 or 14	Those additional hazards will need to be taken into consideration when selecting the best form of fall protection system

Appendix D: Fall Protection Rescue Assessment

Company Name: Address:	Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction

Contacts: (Please list in notification priority)

Onsite Rescue Team	*Phone Number*	*24 Hour Emergency Phone Number*	*Shift Number*
Other Emergency Contacts	*Phone Number*	*24 Hour Emergency Phone Number*	

Arranged Emergency Responding Agencies: ☐ **N/A**

Agency	*Phone Number*	*Contact Name*

Local First Aid Service:

Rescue Factors:

Initials	*Arresting Area (Height)*	*Remarks/ Recommendations*
Initials	*Rescue Obstructions or Hazards*	*Remarks/ Recommendations*

Rescue Equipment:

Equipment	*Location of Equipment*
☐ Ladder	
☐ Aerial Lift	
☐ Rescue Rope	
☐ Scaffold	
☐ Crane	
☐ Rescue Pole	
☐ RSQ	
☐ Life Jacket/Ring	
☐ First Aid Supplies	
☐	

Rescue Response Procedure:
Description of rescue process: 1) Notify rescue team 2) Make medical assessment 3) Determine if emergency services need to be notified 4) If possible, have employee perform self-rescue 5) 6) *Remember that all equipment involved in a fall arrest or impact loading must be removed from service and destroyed.*

Have all members of the Rescue Team been trained in all rescue procedures for this site?	☐ **Yes** ☐ **No**

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Rescue Plan Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Appendix E: Fall Protection Full Body Harness Inspection Form

Harness #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer _____

P = PASS F = FAIL

		Label		Hardware				Webbing				Stitching			
Date	**Inspector Initials**	Label	Impact Indicator	Shoulder Adjustment Buckles	Leg/Waist Buckles	D-Ring	Chest Buckle	Shoulder Straps	Chest Straps	Leg Straps	Back Straps	Shoulder Straps	Chest Straps	Leg Straps	Back Straps

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware – Inspect for any corrosion, nicks, pitting, burn marks, or cracks. All buckle system grommets must be in place without any damage. Mating buckles are flush and not bent.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.

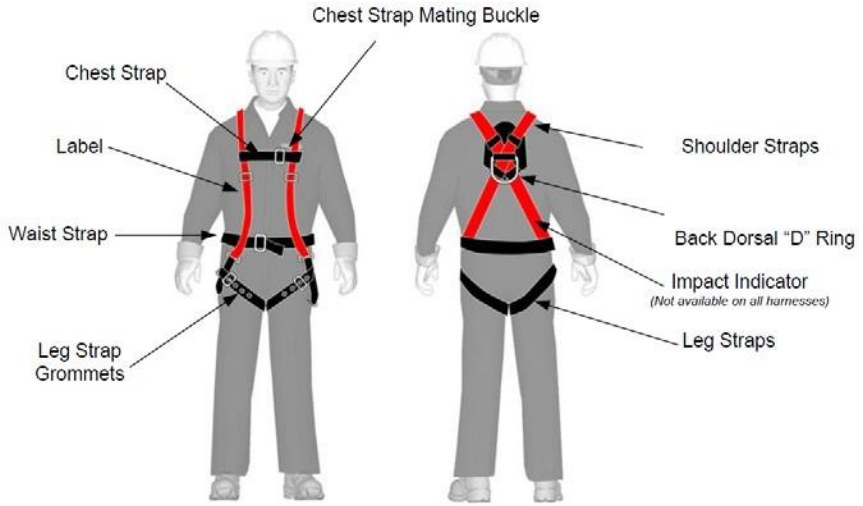
If any portion of the harness shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the harness receives any "Fails" or "F's" in the table above, then that harness must be taken out of service and discarded.

Safety Harness Inspection

Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. **FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS.**

CONDITION

1. Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. **Check for thread separation or rotting both inside and outside of the body pad.**
2. Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. **Check for distortion or sharp edges.**
3. The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. **Check for excessive elongation or distortion.**
4. Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. **Bent rivets will fail under stress.**
5. Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). **Discolored, pitted or cracked rivets may indicate chemical corrosion.**
6. Friction buckles must be inspected for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.
7. Sliding bar buckles must have the buckle frame and sliding bar inspected for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.



Appendix F:

Fall Protection Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

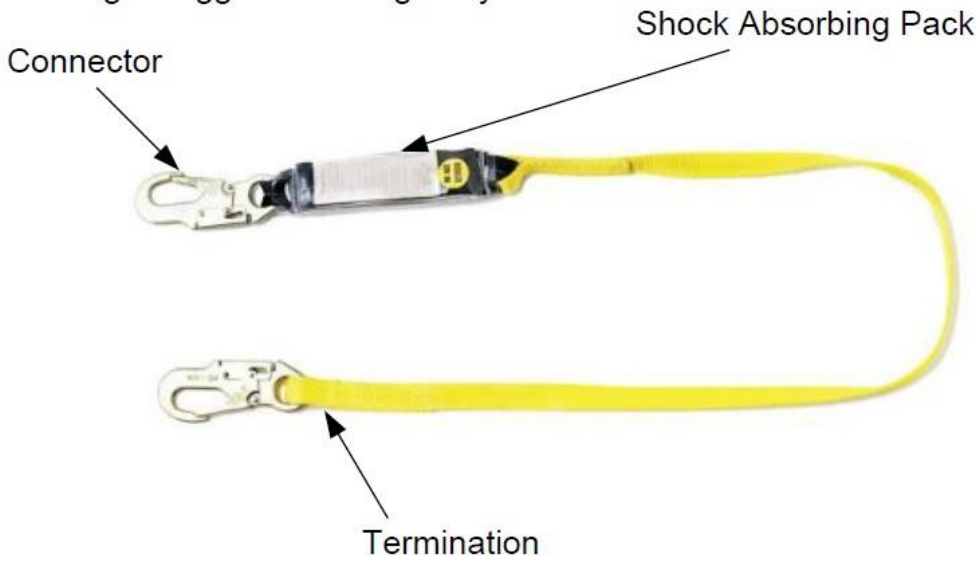
		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Cover	Casing

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors – Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.

If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

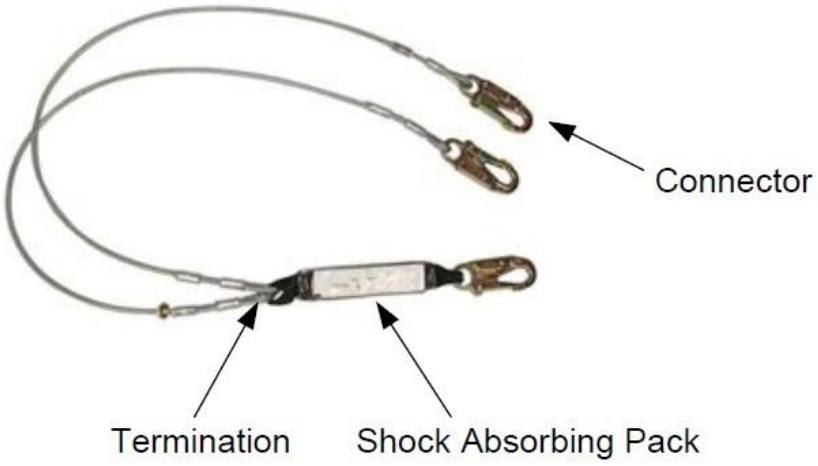
Lanyard Condition

Single Legged Webbing Lanyard

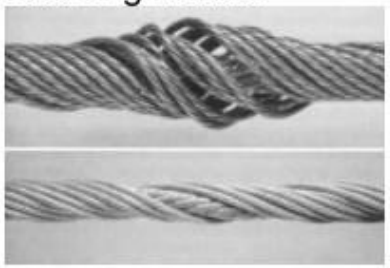


Webbing and Stitching Fraying

Double Legged Wire Rope Lanyard



Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix G: Fall Protection Self-Retracting Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	Housing	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Casing	Attach Point	Hardware

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors– Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.
Housing – Inspect for any signs of cracks, dents, rust, or missing hardware. Attachment point is secure and free of corrosion, dents, cracks, or discoloration.

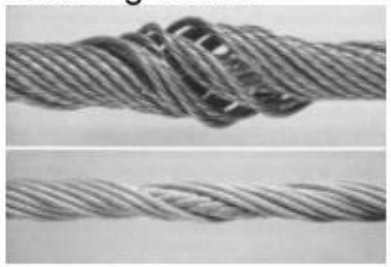
If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

Self-Retracting Lanyard Condition

Self Retracting Lanyard – Cable Rope

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix H:

Fall Protection Hardware Inspection Form

Carabiners & Snaphooks

Carabiner **OR** Snaphook (circle one)

Model_____

Serial #_____

Manufacture Date_____

Lot #_____

Purchase Date_____

P = PASS F = FAIL

		Label or Markings	Load Ratings (strength)		Specifications		Inspection			Comments
Date	**Inspector Initials**	Markings	Gate (≥16 kN)	Tensile (≥22.5 kN)	Self-Closing / Locking	Smooth Operation	Main Body	Spine	Gate & Hook-nose	

Labels & Markings – Labels or markings must be intact and legible. All acceptable carabiners and snaphooks must have a strength rating (in kilo-Newton (kN)) engraved/etched into the spine (minimum 16 kN=gate and 22.5 kN=tensile load).

Hardware Specifications– All carabiners and snaphooks must be self-closing and self-locking. The gate and lock should operate smoothly. Gates must fully close and engage nose of hook.

Inspection-Inspect for corrosion, cracks, sharp edges, burrs, bending, distortion, or other deformities. If any defective condition is identified, immediately remove the device from service and destroy.

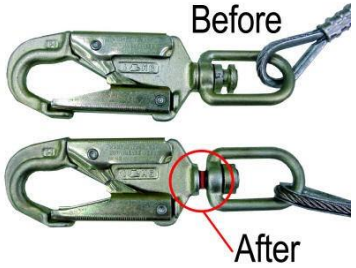
If device has been subjected to fall arrest or impact loading, remove from service and destroy.

If the hardware shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above and must be taken out of service.

Hardware Condition

Snaphook is a connector comprised 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. Snaphooks are required to be self-closing with a self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection.

Compliant connectors are stamped with strength ratings.



Carabiner is a connector generally shaped in a trapezoidal or oval body with a closed gate, or similar arrangement, that may be opened to attach another object and, when released, automatically closes to retain the object.

Appendix I:

Fall Protection Anchor Inspection Form

Anchor #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Anchor Type_____

P = PASS F = FAIL

		Label	**Hardware (if applicable)**		**Mounting Plates**			**Webbing (if applicable)**		**Stitching (if applicable)**	**Cable**	
Date	**Inspector Initials**	Label	Metal Condition	Connection Ring	Rivets	Welds	Connection Points	Main Body	Termination	Termination	Main Body	Termination

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware and Mounting Plates– Inspect for any corrosion, nicks, pitting, burn marks, bends, missing screws, damaged welds, or cracks. All rivets must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
If any portion of the anchor shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the anchor receives any "Fails" or "F's" in the table above, then that anchor must be taken out of service.

Anchor Condition

Cable Sling Anchor

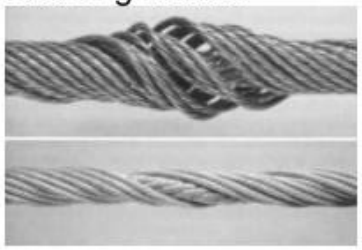
Temper Anchor

Welded Roof Anchor

Cross Arm Strap Anchor

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage


DANGER
HOLE COVER
DO NOT REMOVE


CAUTION
FALL HAZARD
* OPEN PIT *




Fall Protection Program for General Industry

29 CFR 1910.140, subpart I, Personal Fall Protection Systems
29 CFR 1910, subpart D, Walking-Working Surfaces





Fontana Freightliner
13800 Valley Blvd.
Fontana, CA 92335

This Fall Protection Program for General Industry has been developed in accordance with the requirements of Title 29, Sections 1910.140 and 1910.21-30 of the Code of Federal Regulations. I have reviewed this program for completeness and the provisions contained herein will apply to operations at Fontana Freightliner

Signature _____ Title _____

Printed Name _____ Date _____

TABLE OF CONTENTS

OSHA REGULATIONS

PROGRAM OVERVIEW

Effective January 2017, the Occupational Safety and Health Administration (OSHA) updated the requirements for walking-working surfaces and slip, trip, and fall hazards (29 CFR 1910, subpart D), and provided additional requirements for personal fall protection systems (29 CFR 1910.140, subpart I) for employers in general industry.

In response to the updated requirements, KPA has developed a Fall Protection Program for general industry employers. The program provides accepted practices for walking-working surfaces as required in the 2016 update of 29 CFR 1910 subpart D, and for the implementation of 29 CFR 1910.140, subpart I, Personal Fall Protection Systems.

Falls from heights and falls on the same level are among the leading causes of serious work-related injuries and deaths. The requirements were revised to better protect employees in general industry from these hazards by updating standards and adding training and inspection requirements.

This program should be made available to all employees since walking-working surfaces affect every person, in every department, performing every activity to some degree. Fall protection systems will not affect everyone, however, employees need to be aware of when, and what kind of fall protection system is required in identified areas.

PURPOSE

The purpose of the Fall Protection Program is to provide criteria for the recognition, control and/or elimination of potential fall hazards which includes slips, trips and falls on the same level (walking-working surfaces), and elevated falls at a level of 4 feet or greater that may require the use of fall protection systems.

The program is designed to explain:

- The requirements for performing workplace hazard assessments;
- How to identify the most common fall hazards;
- The appropriate actions to take to prevent slip, trip and fall incidents;
- How to select the appropriate fall protection systems; and
- The options, recommendations and guidance on how to comply with the updated and added requirements of the regulations.

Effective program implementation requires support from all levels of management. The location manager, and/or their designee, is responsible to ensure program requirements are fulfilled. The program encompasses the total workplace, regardless of the number of employees or the number of work shifts. This applies to all facilities and field operations where personnel could be exposed to fall hazards of 4 feet or greater.

- OSHA defines “walking-working surface” as any horizontal or vertical surface on which an employee walks, works, or gains access to a workplace location. Employers are required to ensure walking-working surfaces are kept in a clean and orderly condition in all places of employment and during all work activities.
- “Fall protection” is any device, equipment, or system that prevents an employee from falling from an elevation or minimizes the negative effects of such a fall.

- This Fall Protection Program is not designed for the construction industry. Fall protection in construction applies when working at elevated heights of 6 feet or greater. Requirements for construction can be found at 29 CFR 1926, subpart M.

If feasible, fall hazards must first be controlled by using engineering controls. When engineering controls are not feasible, then administrative controls, personal fall arrest systems (PFAS) and training must be implemented. When using PFAS, employees are to be connected to an anchor point at all times (100% tie-off).

In order to determine if a Fall Protection Program is required or appropriate for a facility, the location manager, or his/her designee, should complete a preliminary fall hazard assessment to identify potential areas or tasks that might require fall protection. The Preliminary Fall Hazard Assessment Form (Appendix A) can be used to document the findings of the assessment. In addition, a third party (Risk Management Consultant) may be used to assist in completing this assessment.

RESPONSIBILITIES

Location manager

The location manager, or his/her designee, is responsible for ensuring the requirements of the Fall Protection Program are fulfilled. Administration of the program will require sufficient knowledge of hazard recognition and fall protection system requirements, and include the following actions:

- Assess all areas of the workplace to identify potential fall hazards;
- Select and provide appropriate fall protection systems and equipment, as needed or required;
- Ensure employees are trained in the proper use of fall protection systems and equipment;
- Enforce the use of selected fall protection systems and equipment;
- Ensure all fall protection systems and equipment are inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis;
- Ensure fall protection systems are installed and/or set up by a qualified or competent person; and
- Ensure fall protection procedures are followed.

Qualified person

“Qualified” describes a person who has a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has the ability to solve or resolve problems relating to fall protection matters.

- The qualified person must have a thorough understanding of the following:
    - Recognition of different types of fall hazards;

- Procedures to minimize fall hazards;
- Correct procedures for installing, inspecting, operating, maintaining and disassembling fall protection systems;
- Correct use of personal fall protection systems and other equipment;
- Use of fall protection systems and equipment, manufacturer limitations, and fall protection standards; and
- The role of employees in fall protection plans (as applicable).

Competent person

"Competent" describes a person who is capable of identifying existing and predictable hazards in any component of a personal fall protection system, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- The competent person must:
  - Have enough experience and knowledge to know when to call a qualified person;
  - Conduct a fall hazard survey and re-evaluate as work progresses;
  - Understand personal fall protection systems, components of the systems, and how they operate;
  - Ensure all personnel working at heights are trained;
  - Perform inspections of personal fall protection systems prior to each use;
  - Ensure the fall protection system is taken "out of service" following impact loading so all components can be inspected;
  - Ensure a rescue plan is in place in the event an employee falls; and
  - Participate in the incident investigation, if one occurs.

Employees

Employees are responsible for the following:

- Attend all appropriate training;
- Inspect fall protection systems and equipment prior to each use in accordance with manufacturer's guidelines and instructions;
  - Equipment that has been subjected to a fall or impact loading must be removed from service until inspected by a certified and qualified fall protection specialist, competent person, qualified professional engineer or the manufacturer.
- Utilize fall protection systems and equipment, as needed or required;
- Wear all required personal protective equipment (PPE);
- Report hazardous conditions or other health and safety concerns to your supervisor immediately;
- Report incidents, or near-miss incidents to your supervisor immediately; and
- Comply with all aspects of this program.

TRAINING

Ensure employees who are exposed to fall hazards, or who use fall protection systems, receive proper training that includes refresher training when necessary.

- **Training must be performed by a qualified person.**
- **Training must be understandable.** The employer must provide information and training to each employee in a manner that the employee understands.
- **Documentation.** Prepare a written certification record which includes the name of the employees trained, the date(s) of training, and the signature of the person who conducted the training.

Fall hazards

Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses fall protection systems. Employers must ensure employees are trained in at least the following topics:

- The nature of the fall hazards in the work area and how to recognize them;
- The procedures to be followed to minimize those hazards;
- How to estimate free fall distance;
- The correct procedures for selecting, installing, inspecting, operating, maintaining, and disassembling the fall protection systems that the employee uses;
- The limits of the fall protection system; and
- The correct use of personal fall protection systems and equipment including, but not limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

Equipment hazards

The employer must train each employee in the proper care, inspection, use and storage of fall protection systems and equipment prior to use.

- **Dock boards.** Employees must be trained to properly place and secure dock boards to prevent unintentional movement.
- **Rope descent system (RDS).** Employees who use a RDS must be trained in the proper rigging and use of the equipment in accordance with 29 CFR 1910.27.
- **Ladders.** Employees must be trained on how to safely use different types of ladders.
    - Fixed ladders. Employers are required to provide fall protection systems on fixed ladders that extend more than 24 feet above a lower level.
        - New fixed ladders over 24 feet must be equipped with a ladder safety system or personal fall protection system (effective November 19, 2018).
        - Existing fixed ladders over 24 feet must be equipped with a cage or well as required by the existing rule, or a ladder safety system or personal fall protection system as required by the final rule.

Retraining

The employer must retrain an employee when there is reason to believe that the employee does not have the understanding and/or skills required to use fall protection systems or equipment safely. Situations requiring retraining include, but are not limited to, the following:

- When changes in the workplace render previous training inadequate or obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training inadequate or obsolete;
- When inadequacies are identified in an employee's knowledge or use of fall protection systems or equipment;
- When the employee performs any task, or uses equipment in an unsafe manner;
- When the employee is involved in an incident, or near-miss incident that relates to slips, trips and falls, or fall protection systems; or
- Any time fall protection equipment or procedures fail.

FALL PROTECTION PROCEDURES

In addition to ensuring walking-working surfaces are maintained in an appropriate condition, the following procedures provide guidance on how to assess slips, trips and falls, and fall-from-height hazards of 4 feet or greater.

Walking-working surfaces

- Inspect walking-working surfaces regularly and maintain surfaces in a safe condition. The Walking-Working Surfaces Inspection Form (Appendix B) can be used to document these inspections.
    - Determine a frequency of inspection that is adequate to identify and address hazards in a timely manner.
    - Perform inspections as determined.
    - Conduct inspections when workplace conditions, circumstances, or events occur that warrant an additional check to ensure walking-working surfaces are safe.
- Ensure all places of employment including passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, sanitary, and if feasible, dry condition.
- Maintain drainage in areas where wet processes are used, and provide dry standing places such as false floors, platforms and mats, if feasible.
- Maintain walking-working surfaces free of sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, ice, and other slip, trip, and fall hazards.
- Correct or repair any hazardous walking-working surface conditions prior to employee use.
    - Guard the hazard to prevent employees from using the walking-working surface if the hazard cannot be immediately corrected.
    - A qualified person must perform or supervise any correction that may affect the structural integrity of a walking-working surface.

- Ensure each walking-working surface can support the maximum intended load for that surface.
- Ensure there is sufficient clearance in aisles, at loading docks, through doorways and wherever turns or passage must be made when using mechanical handling equipment.
- Provide standard guardrails at every stairway or ladderway floor opening in accordance with applicable OSHA requirements (29 CFR 1910.28).
- Provide skylight floor openings/holes with a standard skylight screen or fixed standard railing on exposed sides.

Basic fall protection

- Perform an assessment of the workplace to identify potential slips, trips and falls, and fall from heights hazards.
- Detail the required steps to take to protect employees from fall hazards. The Fall Hazard Assessment Form (Appendix C) can be used to document fall hazards.
- Identify the appropriate fall protection systems and equipment to use when hazards cannot be eliminated.
    - Fall protection systems and equipment must be selected by a qualified person.
- Provide training to personnel exposed to fall hazards that includes:
    - Recognition of fall hazards;
    - Understanding fall protection systems and equipment; and
    - Familiarity and use of personal fall arrest systems, equipment and procedures.
- Ensure that safe access and egress to elevated work areas are provided.
- Consider operational requirements when designing fall protection for elevated heights.
- Document the load rating of anchor points to be used with PFAS, as determined by a qualified person or professional engineer.
- Fall protection is not required on the working side of platforms used at loading racks, loading docks, and teeming platforms when it is not feasible. The working side exception only applies when the employer demonstrates infeasibility and:
    - The work operation is in process;
    - The employer limits access to the platform to “authorized” employees; and
    - The employer trains authorized employees to recognize fall hazards and understand the procedures to minimize them

EXCEPTIONS

There are four exceptions from the 4 foot trigger height to use fall protection:

1. **Over dangerous equipment**
    - When employees are less than 4 feet above dangerous equipment, they must be protected from falling into or onto the equipment.
2. **On fixed ladders**

- Employers are required to provide fall protection to those fixed ladders that extend more than 24 feet above a lower level.

3. **Use of motorized equipment on dock boards**
    - Employees often use motorized equipment to move large and/or heavy material across dock boards. This equipment may not fit on a dock board that has guardrails or handrails.
4. **Around repair, service, and assembly pits**
    - Employers do not have to provide fall protection systems for service, repair, or assembly pits that are less than 10 feet deep, provided the employer:
        - Limits access within 6 feet of the pit edge to trained, authorized employees;
        - Applies floor markings or warning lines and stanchions at least 6 feet from the pit edge; and
        - Posts visible caution signs that state “Caution—Fall Hazard-Open Pit,” or similar verbiage.
    - When two or more pits in a common area are not more than 15 feet apart, the employer may comply by placing contrasting floor markings at least 6 feet from the pit edge around the entire area around the pits.

PROTECTION FROM FALLING OBJECTS

The requirements listed in the walking-working surface regulation are not only designed to protect employees from falls on the same level and falls from heights, but also to protect employees from having objects fall on them.

- Protect employees from falling objects by implementing one or more of the following:
    - Erect toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;
    - Erect canopy structures or keep potential falling objects away from an edge, hole or surface opening; or
    - Guard/barricade the area where objects could fall and minimize or prohibit employee access.
- Install toeboards at the walking surface level of a guardrail system. Toeboards are designed to prevent materials, tools, and equipment from falling to a lower level, and to protect employees from falling objects. Ensure toeboards used for falling object protection:
    - Are erected along the exposed edge of the overhead walking-working surface;
    - Have a minimum vertical height of 3.5 inches as measured from the top edge of the toeboard to the level of the walking-working surface;
    - Have a minimum height of 2.5 inches when used around vehicle repair, service, or assembly pits;
        - Toeboards may be omitted around vehicle repair, service, or assembly pits when the toeboard would prevent access to a vehicle that is over the pit.

- Do not have more than a ¼ inch opening above the walking-working surface;
- Are solid or do not have any opening that exceeds 1 inch; and
- Are capable of withstanding, without failure, a force of at least 50 lbs in any downward or outward direction.

Ensure there is a good housekeeping program in place to identify and remove hazards, and provide employees a safe place to work. When materials and debris are properly cleaned up and tools are put in proper storage areas, the risk of injury from falling objects can be greatly reduced.

REQUIREMENTS OF THE FINAL RULE

Inspections of walking-working surfaces

Employers are required to perform inspections of walking-working surfaces on a regular basis, and as necessary, to identify hazards and address them in a timely manner. Although it may seem the rule will have no impact on your facility, consider all areas or tasks that might be covered by the regulations.

Common fall hazards may include, but are not limited to the following:

Floor holes	Mezzanines	Vehicle repair, service & assembly pits
Floor openings	Overhead storage areas	Work performed on high-profile vehicles: sprinter vans, commercial trucks, RVs, railcars
Wall openings	Unprotected elevations/platforms	Parking lots/parking areas
Aisles/walkways	Work over dangerous equipment	Scaffolding
Stairways	Work over chemical tanks	Aerial lifts
Open sides & edges (leading edge)	Roof openings	Excavations
Dock boards	Skylights	Grain bins
Loading docks	Ladders	Step bolts

Fall protection systems

Employers are no longer required to make guardrails the primary means of fall protection, they may now choose from a range of accepted fall protection systems and equipment appropriate for the situation. Following are suggested fall protection options:

- **Covers.** Protect employees from hazards associated with holes by the use of covers. A hole is a gap or void 2 inches or more in a floor, roof, deck, or other walking/working surface that presents hazards due to:
    - Employees falling through holes;
    - The hole's design creating a trip hazard; or
    - Objects falling through the hole and injuring employees below.
    - Covers for permanent holes are typically built for a specific purpose (i.e. permanent access points, manhole covers, and trap doors) and are only effective when they are properly designed and secured in place.
    - Effective hole covers are:

- Large enough to provide appropriate overlap to prevent employees from falling through;
- Strong enough to support at least twice the anticipated weight imposed by the heaviest load;
- Left in place over the hole until access is needed;
- Secured and do not create trip hazards; and
- Marked clearly as “Hole Cover” or “Open Hole”

- **Guardrail System.** Guardrail systems are installed on open sides of elevated locations. The guardrail consists of a vertical barrier with a top-rail, mid-rail, (toeboard as appropriate), and intermediate vertical rails erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.
  - Guardrails are common for storage areas on elevated levels, mezzanines and at loading docks.
  - Guardrail systems must meet the following criteria:
    - Top-rails must be installed 42 inches (+/- 3 inches) above the walking/working surface and be capable of withstanding a minimum force of 200 lbs in any outward or downward direction within 2 inches of the top edge;
      - The top-rail must not deflect to a height of less than 39 inches above the walking-working surface when the test load is applied.
    - Mid-rails must be installed 21 inches above the walking/working surface and be capable of withstanding a minimum force of 150 lbs in any outward or downward direction;
    - Posts must be spaced not more than 8 feet apart on centers;
    - There are no openings more than 19 inches wide in any guardrail system;
    - Do not use plastic or steel banding as top-rail;
    - Provide top-rails and mid-rails of at least ¼ inch thickness or diameter, and smoothly surfaced to prevent cuts and punctures; and
    - Add high-visibility flags to the top-rail when using wire rope for top-rails.
  - Erect guardrails on all sides around holes or floor openings.
  - Install a gate or offset guardrails when they are used around holes that provide access, such as ladder ways, so that a person cannot walk directly into the floor opening.
  - Place a chain, gate or removable guardrail across the access point to hoisting operations when operations are not taking place.
  - Provide guardrail systems or other fall protection systems at **all** locations above dangerous equipment, even if not 4 feet or greater.

- Provide guardrails at all wall openings where the outside bottom edge of the 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.
- Erect guardrail systems on all unprotected sides or edges of ramps and runways.

- **Personal Fall Protection System.** A system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.
  - **Personal Fall Arrest System (PFAS).** A personal system used to prevent a falling employee from contacting a lower level. A PFAS consists of a full-body harness, anchorage, connector, and may include a lanyard, deceleration device, lifeline, or suitable combination of these.
    - Consider using a PFAS when performing work on elevated surfaces where guardrails are not a convenient or practical solution, such as on top of high profile vehicles.
    - Requirements for a PFAS include training on inspection, use and proper maintenance and storage.
    - Inspect all fall protection components for wear, damage, and deterioration prior to each use.
    - Remove damaged or defected equipment from service immediately
    - Use only full body harnesses, shock-absorbing lanyards, horizontal lifelines, self-retracting lifelines and anchorage points which meet the following criteria:
      - Limit the maximum arresting force on an employee to 1,800 lbs;
      - Prevent the employee from free falling more than 6 feet or from contacting any lower level;
      - Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet;
      - Are strong enough to withstand twice the potential impact energy of the employee free falling a distance of 6 feet; and
      - Sustain the employee within the system/strap configuration without making contact with the employee's neck and chin area.
    - All components of a personal fall arrest system meet the specifications of 29 CFR 1910.140, Personal Fall Protection Systems.
    - Full body harness. Harness that consists of straps that secure around the torso of the employee in a manner to distribute the force of a fall over the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
    - Connector. A device which is used to couple (connect) parts of the PFAS. Three common connectors include:

- Snap hook. Automatic-locking with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or suffering permanent deformation
    - Non-locking snap hook with a self-closing gate that remains closed, but not locked, is prohibited
- D-ring. A metal loop with a spring-hinged side that can quickly and reversibly connect components.
    - Attachment of the D-ring to the body harness must be located in the center of the wearer's back near shoulder level
    - Must have a minimum tensile strength of 5000 lbs
    - Must be proof-tested to a minimum tensile load of 3600 lbs without cracking, breaking, or incurring permanent deformation
- Carabiner. A connector usually oval shaped body with a closed gate that may be opened to attach another object, and when released closes automatically.
    - Must be capable of sustaining a minimum tensile load of 5000 lbs
    - Must be proof-tested to a minimum tensile loaf of 3600 lbs without cracking, breaking, or incurring permanent deformation

- Anchor point. Secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be:
    - Capable of supporting at least 5,000 lbs (3,600 lbs if engineered/ certified by a qualified person) per person; and
    - Independent of any anchor point being used to support or suspend platforms.
- Lanyard. A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body harness or body belt to a deceleration device, lifeline, or anchorage.
    - Lanyards must be compatible with all connectors used.
    - Lanyards must be protected from being cut, abraded, melted, or otherwise damaged.
- Lifeline. A flexible line for connection to an anchorage at one end so as to hang vertically (vertical lifeline), or for connection to anchorages at both ends so as to stretch horizontally (horizontal lifeline), and serves as a means for connecting other components of the system to the anchorage.

- Provide separate vertical lifelines for each employee using a vertical lifeline.
- A self-retracting lifeline/lanyard is a device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Self-retracting lifelines and lanyards which limit free fall to 2 feet or less must be capable of sustaining a minimum tensile load of 3,000 lbs in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall to 2 feet or less, rip-stitch, and other shock-absorbing lanyards must be capable of sustaining a minimum tensile load of 5,000 lbs in the fully extended position.

▪ Deceleration device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lanyard, etc. that serves to dissipate energy during a fall.

▪ Train employees on how to properly fit (including weight limitations) and wear a full-body harness, identify proper tie-off techniques and connections, and determine suitable anchorage points.

▪ Instruct employees to rig fall protection to prevent a free fall more than 4 feet and not to contact any lower level.

▪ Do not tie off to guardrail systems or hoists.

▪ Require employees to remain tied off 100% of the time when at or above 4 feet, or if less than 4 feet over hazardous equipment.

▪ Remove from service any component of a personal fall protection system that has been subjected to impact loading.

- Do not reuse equipment until inspected by a qualified or competent person, professional engineer, or manufacturer and determined to be undamaged.
- Most equipment is not intended for reuse following impact loading.

▪ ***Use of a body belt in a PFAS is prohibited!***

o **Rescue.** When personal fall arrest systems are used, special consideration must be given to promptly rescuing an employee should a fall occur. The Fall Protection Rescue Assessment (Appendix D) can be used to document this assessment.

▪ Evaluate the availability of rescue personnel, ladders, or other rescue equipment for situations where an employee cannot perform self-rescue.

▪ Post emergency contact information if relying on outside organizations for rescue.

▪ Employees can perform self-rescue after the fall has arrested if devices have descent capability.

- **Travel Restraint System.** A combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support (full-body harness or body belt) used to eliminate the possibility of an employee going over the unprotected edge or side of a walking-working surface.
    - Use in areas where sufficient anchor points for PFAS are not available.
    - Requirements for snap hooks, D-rings and other connectors are the same as listed in the PFAS section of this program.
    - This system does not support the employee's weight but it is used to prevent employees from reaching the fall hazard, such as an unprotected side or edge.
- **Positioning System.** A system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and perform work with both hands free.
    - A system designed to hold and sustain an employee at a work location and limit the free fall to 2 feet or less.

- **Ladder Safety System.** A system or device attached to a fixed ladder designed to eliminate or reduce the possibility of an employee falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and full body harness or body belt.
    - Cages and wells are not considered ladder safety systems.
- **Safety Net System.** A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling employees before they make contact with a lower level or obstruction. Safety nets can be used where the use of ladders, scaffolds, catch platforms, temporary floors, or safety lines are impractical.
    - Install safety nets as close as possible under the walking/working surface on which employees are working, but never more than 30 feet below this level.
    - Safety nets must extend outward horizontally from the outermost projection as follows:
        - 8 feet for a vertical drop of up to 5 feet
        - 10 feet for a vertical drop between 5 and 10 feet
        - 13 feet for a vertical drop more than 10 feet but not to exceed 30 feet
    - Install safety nets with enough clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
    - Remove all materials, scrap, equipment, and tools which have fallen into the net as soon as possible, but at least before the next work shift.
    - Safety nets must be inspected at least once a week for wear, damage, and other deterioration, and after any occurrence which could affect the integrity of the safety net system. Defective components shall be removed from service and defective or damaged nets are not to be used.

Scaffolding requirements

The existing scaffolding standards for general industry will be replaced with those currently in use for construction (29 CFR 1926.450).

Fixed ladders

The following requirements apply to fixed ladders that extend more than 24 feet above a lower level.

- **Existing fixed ladders.** Each fixed ladder installed before November 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well.
- **New fixed ladders.** Each fixed ladder installed on and after November 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.
- **Replacement.** When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
- **Final deadline.** On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

When a one-section fixed ladder is equipped with a personal fall protection or a ladder safety system, or a fixed ladder is equipped with a personal fall arrest or ladder safety system on more than one section, the employer must ensure:

- The personal fall arrest system or ladder safety system provides protection throughout the entire vertical distance of the ladder, including all ladder sections; and
- The ladder has rest platforms provided at maximum intervals of 150 feet.

The employer must ensure ladder sections having a cage or well:

- Are offset from adjacent sections; and
- Have landing platforms provided at maximum intervals of 50 feet.

The employer may use a cage or well in combination with a personal fall arrest system or ladder safety system provided that the cage or well does not interfere with the operation of the system.

Rope descent systems (RDS) and anchorage certification

- RDS consists of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seat board. These systems are commonly used to perform elevated work such as window washing.
- RDS requires building owners to provide, and employers to obtain, proof that permanent RDS anchorages have been properly inspected, tested, and maintained, and are able to support 5,000 lbs per attached employee. RDS are prohibited at heights of 300 feet above grade unless all other systems are proven to be impractical or pose a greater hazard.

Phase-out of the “Qualified Climber” exception in outdoor advertising

Although this requirement will not apply to many employers, it is important to understand how the regulations might apply.

- The final rule requires all employees to comply with ladder safety and fall protection requirements when climbing fixed ladders on billboards over 24 feet tall.

- Employers have 2 years to install systems that comply with either the existing standard (i.e., cages and wells) or the new ladder safety and personal fall protection standards.

INSPECTIONS

Inspection of fall protection systems

- PFAS must be inspected prior to each use for wear, damage, defects and other deterioration.
    - Remove defective components from service immediately and either destroy the equipment or label it “out of service” or “damaged.”
- A qualified or competent person must inspect each PFAS at least annually, or more often if recommended by the manufacturer.
    - Document the date of each inspection.
- Use the following criteria to help maintain equipment in good working condition:
    - Full Body Harness. The Fall Protection Full Body Harness Inspection Form (Appendix E) can be used to document these inspections.
        - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
        - Inspect harness for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside and outside of the body pad.
        - Examine all nylon webbing to ensure that there are no burn marks which could weaken the material.
        - Verify there are no torn, frayed, or broken fibers; pulled stitches; or frayed edges anywhere on the harness.
        - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame.
        - The tongue or billet of the belts receive heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion.
            - Never punch additional holes in the harness.
        - Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.
        - Examine the condition of D-ring rivets and D-ring metal wear pads (if any). Discolored, pitted or cracked rivets might indicate chemical corrosion.
        - Inspect friction buckles for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

- Inspect the sliding bar buckles and buckle frames for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.
- Store harnesses in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
- Remove harnesses that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.

- Lanyards/Shock-Absorbing Lanyards. The Fall Protection Lanyard Inspection Form (Appendix F) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Visually inspect shock absorber (if present) for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
  - Inspect the shrink-wrapped casing of the shock absorbing pack to ensure that it has not been expanded or damaged. Impact indicators must not show expansion.
  - Inspect webbing for cuts, holes, frays, discoloration, paint contamination, heat and excessive wear damage. Termination is the webbing end which meets the connectors.
  - Inspect cable for bird caged wire or cable separation.
  - Inspect connectors for corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
  - Inspect the snap hooks for distortions in the hook, locks, and eye.
  - Check carabiner for excessive wear, distortion, and lock operation.
  - Ensure that all locking mechanisms seat and lock properly.
  - Store lanyards in a clean, dry location, and away from heat and out of direct sunlight to protect from damage.
  - Remove lanyards that have sustained impact loading (involved in a fall) from service and label “out of service” or “damaged” and destroy.
- Self-Retracting Lanyards/Lifelines. The Fall Protection Self-Retracting Lanyard Inspection Form (Appendix G) can be used to document these inspections.
  - Ensure the label is intact and legible and that all appropriate ANSI/OSHA markings appear.
  - Inspect the body to ensure there is no physical damage.
  - Make sure that all nuts and rivets are tight.
  - Make sure that the entire length of the nylon strap/wire rope retracts freely, and is free from cuts, burns, abrasions, kinks, knots, broken stitches/strands and excessive wear.

- Test the unit by pulling sharply on the lanyard/ lifeline to verify thatthe locking mechanism is operating correctly.
- Conduct and document a monthly inspection of all self-retracting lanyards/lifelines by a qualified or competent person.
- Return the device to the manufacturer for service per manufacturer's specifications (usually annually).
- Inspect visually and functionally after a fall or impact loading.

- Snap Hooks and Carabiners (Hardware). The Fall Protection Hardware Inspection Form (Appendix H) can be used to document these inspections.
  - Ensure the load rating is either forged or etched into the spine of the carabiner or snap hook and is legible.
  - Verify:
    - There are no hook and eye distortions
    - There are no cracks or pitted surfaces
    - The keeper latch is not bent, distorted, or obstructed
    - The keeper latch seats into the nose without binding
    - The keeper spring securely closes the keeper latch
  - Test the locking mechanism to verify that the keeper latch locks properly.
  - All snap hooks involved in a fall should be destroyed.
- Anchor Points. The Fall Protection Anchor Inspection Form (Appendix I) can be used to document these inspections.
  - A qualified or competent person must perform an annual inspection of all tie-off and anchor points.
  - Maintain documentation of anchorage load ratings and inspections.
  - Inspect anchorages for integrity and attachment to solid surface prior to use.
- Horizontal Lifelines
  - Horizontal lifelines must be designed, installed, and used under the supervision of a qualified person.
  - Lifelines are part of a complete personal fall arrest system and must maintain a safety factor of at least 2.
  - Inspect the structural integrity of line and anchors before each use.
  - A qualified or competent person will complete and document an annual inspection.

STORAGE AND MAINTENANCE

Maintenance and storage of fall protection equipment

To ensure that fall protection systems are ready and able to perform as designed, a preventative maintenance schedule should be implemented.

Following are basic requirements of a maintenance program, however, you should follow manufacturer's recommendations for storage and maintenance, if provided.

- Documented inspections must be performed annually by a qualified or competent person, or more often if required by the manufacturer.
- Inspect all fall protection equipment prior to each use and verify the last documented inspection date.
- Store personal fall arrest equipment in a cool, dry, clean location and in a manner that maintains its shape. (It is preferable to hang harnesses)
    - Never store PFAS equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow).
    - Never store equipment in areas with excessive heat, chemicals, fumes, corrosive elements or moisture.
    - Consider possible exposure to radiation, electrical conductivity, and chemical effects when storing equipment
- Maintain a PFAS in a clean and dry condition so it is ready for use.
    - Clean with a mild, non-abrasive soap and hang to dry.
    - Never force dry or use strong detergents in cleaning.
- Never use equipment for any purpose than its intended use (personal fall arrest).
- Once a PFAS is exposed to a fall or impact loading, label "out of service" and do not use until inspected by a qualified or competent person, or returned to the manufacturer for inspection.
    - Equipment that is "out of service," damaged, or in need of maintenance will be tagged as unusable and will not be stored in the same area as serviceable equipment.
    - Components of a PFAS may have to be destroyed after impact loading.

EFFECTIVE DATES

Most of the requirements of the final rule became effective on January 17, 2017, however, some provisions of the rule have delayed effective dates:

By…	Employers must ensure that…
November 20, 2017	Anchorages for rope descent systems must be inspected and certified, as applicable.
November 19, 2018	New fixed ladders over 24' tall must be equipped with ladder safety systems or personal fall protection systems.
	Existing fixed ladders over 24' tall must be equipped with a cage or well per the existing rule, or a ladder safety system or personal fall protection system per the final rule.
November 18, 2036 (20 years after initial publication)	All fixed ladders over 24' tall are equipped with ladder safety system or personal fall protection systems.

DEFINITIONS

Anchorage - A secure point of attachment for lifelines, lanyards or deceleration devices.

Body belt – A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness - Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Competent person – A person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment.

Connector – A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.

Deceleration device - Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip-stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Energy shock absorber - A device that limits shock-load forces on the body.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall arrest system - A system specifically designed to secure, suspend, or assist in retrieving an employee in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.

Free fall - The act of falling before a personal fall 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 belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

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

Lanyard - A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Leading edge - The edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which

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

Opening - A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system - A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system - A body belt or 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.

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.

Retractable lifeline - A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Rope grab - A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

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

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

Snap-hook - A connector comprised 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 are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

Toeboard - A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Walking/Working surface - Any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning line system - A 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 guardrail, body belt, or safety net systems to protect employees in the area.

Work area - That portion of a walking/working surface where job duties are being.

APPENDICES

Appendix A: Preliminary Fall Hazard Assessment

Appendix B: Walking-Working Surfaces Inspection Form

Appendix C: Fall Hazard Assessment Form

Appendix D: Fall Protection Rescue Assessment

Appendix E: FP Full Body Harness Inspection Form

Appendix F: FP Lanyard Inspection Form

Appendix G: FP Self-Retracting Lanyard Inspection Form

Appendix H: FP Hardware Inspection Form

Appendix I: FP Anchor Inspection

Appendix J: Hole Cover Sign-Example

Appendix K: Open Pit Sign-Example

Appendix A Preliminary Fall Hazard Assessment

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	

Section 1: Fall Hazard Identification (See page 2 for additional guidance) ***Will employees be operating in close proximity to any of the following:***		
1. Are there unprotected wall / floor openings that are 4′ or more above a lower level?	☐ Yes	☐ No
2. Are there unprotected edges (4′ above lower level) or leading edges (6′ above lower level)?	☐ Yes	☐ No
3. Are there open holes in floors (i.e. floor drains, manholes)?	☐ Yes	☐ No
4. Are there openings in roofs that could allow a fall to a lower level (i.e. roof hatches, ladder access, skylights)?	☐ Yes	☐ No
5. Is work being performed on roofs of high-profile vehicles or rail cars that are 4′ or higher?	☐ Yes	☐ No
6. Are there elevated storage areas with unprotected sides or edges (i.e. mezzanines)?	☐ Yes	☐ No
7. Are employees exposed to open repair, service or assembly pits (lube)?	☐ Yes	☐ No
8. Are employees performing work within 15′ of the edge of the facility roof?	☐ Yes	☐ No
9. Are employees climbing fixed ladders over 24′ in height?	☐ Yes	☐ No
10. Are employees exposed to excavations, cliffs, or open pits over 4′ deep? (Construction is 6′ deep)	☐ Yes	☐ No
11. Are employees using aerial lifts such as manlifts, boom lifts, spider lifts, vertical personnel lifts, scissor lifts, bucket trucks, cherry pickers?	☐ Yes	☐ No
12. Are there any other unprotected elevated work surfaces that are 4′ or more above a lower level, or 6′ or more above a lower level in construction?	☐ Yes	☐ No

Section 2: Identification of Requirement for Fall Protection	
For facilities in general industry, the trigger height for fall protection systems is 4′ or more above a lower level.	
For facilities or activities in construction, the trigger height for fall protection systems is 6′ or more above a lower level.	
Employees working or operating above dangerous equipment (regardless of height) must be protected from falling into the equipment.	
If you have answered "No" to all questions in Section 1, then no fall hazards have been identified and no further action is necessary at this time.	☐
If you only answered "Yes" to question #7, see page 2 for requirements to proceed.	☐
If you have answered "Yes" to other questions in Section 1, then please review and select an option in Section 3.	☐

Section 3: Fall Protection Control	
The identified fall hazards at this location will be managed by installing engineering controls that comply with 29 CFR 1910 Subpart D (general industry) or 29 CFR 1926 Subpart M (construction). Additional fall protection systems, procedures, or PPE will not be necessary at this time.	☐
The identified fall hazards at this location will be managed by the installation and use of fall protection systems that may include a full body harness, lanyard, self-retracting lanyard, fall restraint system, etc. A further assessment will be conducted and fall protection systems, procedures and equipment will be installed.	☐

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Section 1: Additional Guidance

1. **Unprotected Wall/Floor Opening** - A gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level. This could include an opening in guardrails on a mezzanine, an open storage landing, etc.

2. **Unprotected edges** - Any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level. This could include roofs, mezzanines, landings, etc.
   Unprotected leading edges – (construction tern) - Leading edge means the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.

3. **Open holes in floors** - A gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension. This could include open drain traps.

4. **Openings in roofs or skylights** - A gap or open space in a roof or skylight that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

5. **Unprotected roofs of high-profile vehicles** – This would include a roof used as a walking working surface at a height of 4 feet or greater. High-profile vehicles could include: tractors, trailers, semi trucks, RVs, vans, buses, rail cars, etc.

6. **Storage areas without side or edge protection** – This could include unprotected edges/sides of mezzanines, areas above offices, or landings. If an employee steps off a ladder to handle materials and the area is 4 feet or more above a lower level then a fall protection system is necessary.

7. **Open repair, service or assembly pits** – This would be an opening in the floor designed for employee entrance in order to perform work. This could include lube pits or transmission repair pits and alignment pits. (This would not include an excavation or trench)

1910.28(b)(8) *Repair pits, service pits, and assembly pits less than 10′ in depth*. The use of a fall protection system is not required for a repair pit, service pit, or assembly pit that is less than 10′ deep, provided the employer:

1) Limits access within 6′ of the edge of the pit to authorized employees trained in accordance with § 1910.30;

2) Applies floor markings at least 6′ from the edge of the pit in colors that contrast with the surrounding area; or places a warning line at least 6′ from the edge of the pit as well as stanchions that are capable of resisting, without tipping over, a force of at least 16 lbs applied horizontally against the stanchion at a height of 30″; or places a combination of floor markings and warning lines at least 6′ from the edge of the pit. When two or more pits in a common area are not more than 15′ apart, the employer may comply by placing contrasting floor markings at least 6′ from the pit edge around the entire area of the pits; and

3) Posts readily visible caution signs that meet the requirements of § 1910.145 and state "Caution-Open Pit."

8. **Facility roof** – This refers to the roof of the facility. If employees are going to be with 15 feet of the roof edge, then a fall protection system is required. Work an a HVAC system, for example.

9. **Fixed ladders over 24 feet in height** – A fixed ladder is one which is permanently attached, such as a ladder to access the roof of the building.

10. **Excavation** - The removal of earth, usually to allow the construction of a foundation, basement or to perform pipe work. If the fall distance is greater than 6 feet then a fall protection system must be installed.

11. **Aerial lifts** – This could include articulated booms, telescopic booms, forklift attachment cages designed to lift an employee, scissor lifts, etc.

Comments:

Appendix B: Walking-Working Surfaces Inspection Form
(Slip, Trip & Fall Hazards)

Company Name: Address:	Specific Location: Assessor/s:	
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

WALKING-WORKING SURFACES			
Surface Conditions:	**YES**	**NO**	**NA**
1. Floors are kept clean, orderly, sanitary and dry (except where wet processes are necessary).	☐	☐	☐
2. Where wet floors or processes are necessary, proper drainage and/or raised surfaces, dry standing platforms, mats, or other non-slip material are provided.	☐	☐	☐
3. Floors are free of leaks, spills, water, snow, ice and other slip hazards.	☐	☐	☐
4. Floors are free from protruding nails, loose boards, cracked tiles, and other tripping hazards.	☐	☐	☐
5. Holes are repaired or covered.	☐	☐	☐
6. Surfaces in poor condition are repaired or guarded by visible barricades.	☐	☐	☐
7. Carpeting and other floor mats and trim, lay flat and are securely fixed.	☐	☐	☐
8. Entryways have absorbent mats to prevent slips due to wet conditions.	☐	☐	☐
9. Changes in direction or elevation are clearly marked.	☐	☐	☐
10. Adequate headroom is provided for the entire length of all walkways.	☐	☐	☐
11. There is adequate clearance in aisles, through doorways, and at loading docks.	☐	☐	☐
12. Standard guardrails are provided at every stairway or ladderway floor opening.	☐	☐	☐
13. Floors can support the maximum intended load.	☐	☐	☐
14. Parking lots and sidewalks are free of broken pavement, potholes, gaps and cracks.	☐	☐	☐
15.	☐	☐	☐
Housekeeping Hazards:	**YES**	**NO**	**NA**
16. Work areas, aisles, and walkways are free of debris or clutter.	☐	☐	☐
17. Walkways are free of cords and wiring.	☐	☐	☐
18. Exit and entrances are unobstructed at all times.	☐	☐	☐
19. Emergency exits are clearly marked.	☐	☐	☐
20. Landings and stairways are free of debris and storage.			
21. Containers are readily available for the disposal of trash.	☐	☐	☐
22. Equipment and materials are cleaned up and stored when not in use.	☐	☐	☐
23. All spilled materials are cleaned up immediately.	☐	☐	☐
24. There are adequate supplies for clean-up, barricading, and posting wet-floor signs.	☐	☐	☐
25. Employees know where housekeeping materials are located and how to use them.	☐	☐	☐
26. Employees are trained to clean up any spills promptly and to notify others of the spill.	☐	☐	☐
27.	☐	☐	☐
Stairs, Ramps, and Guardrails:	**YES**	**NO**	**NA**
28. Changes in elevation are clearly identified.	☐	☐	☐

29. For elevation changes greater than 19 inches, either a ramp or stairs are used.	☐	☐	☐
30. Walking surfaces of ramps contrast visually and materially from the surrounding floor.	☐	☐	☐
31. Ramps and stairs have slip-resistant surfaces.	☐	☐	☐
32. Stair riser height and tread depth is uniform.	☐	☐	☐
33. Handrails are present if stairs have one or more risers.	☐	☐	☐
34. On stairways that are less than 44 inches wide that are enclosed on both sides, at least one handrail is present.	☐	☐	☐
35. On stairways that are less than 44 inches wide that and are open on one side, a stair rail or guard is present on the open side.	☐	☐	☐
36. On stairways that are wider than 44 inches, handrails are present on both sides.	☐	☐	☐
37. Handrails on stairs run the entire length of stairway and extend past the top and bottom steps.	☐	☐	☐
38. Handrails are tight, and at the proper level (between 30-38" high).	☐	☐	☐
39. Adequate lighting is provided in stairwells and landings.	☐	☐	☐
40. Guardrails are provided wherever walking surfaces are elevated more than 48 inches above the floor.	☐	☐	☐
41. Doors to stairways open onto stairway landings, not directly onto a step.	☐	☐	☐
42.	☐	☐	☐
Inspections and Administrative Controls:	**YES**	**NO**	**NA**
43. An inspection program/schedule for walking-working surfaces has been established.	☐	☐	☐
44. Employees are trained in slip, trip and fall hazard identification and prevention.	☐	☐	☐
45. A building inspection is performed to assure all work areas are well-lit.	☐	☐	☐
46.	☐	☐	☐
47.	☐	☐	☐

REQUIRED ACTIONS / RECOMMENDATIONS	
Hazard (question #)	

ADDITIONAL COMMENTS

SIGNATURE OF ASSESSOR		
* ***File a copy of this inspection report in your KPA Yellow Box for future reference.***		
Name:	Signature:	
Title:	Date:	Time:

Appendix C: Fall Hazard Assessment Form

Company Name: Address:		Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction	Location Marked and Entry Controlled: ☐ Yes ☐ No

FALL HAZARD ASSESSMENT CHECKLIST		
1. If industry classification is general, is the fall distance over 4 feet?	☐ Yes	☐ No
2. If industry classification is construction, is the fall distance over 6 feet?	☐ Yes	☐ No
3. Have slipping and tripping hazards been removed or controlled?	☐ Yes	☐ No
4. Can an employee enter the area without restriction and perform work?	☐ Yes	☐ No
5. Will employees be working over dangerous equipment?	☐ Yes	☐ No
6. Can conventional Fall Protection Systems be used? (i.e. guardrails, safety nets, or PFAS)	☐ Yes	☐ No
7. Are fall prevention systems such as cages, guardrails, toeboards, manlifts in place?	☐ Yes	☐ No
8. Is this area an open repair, service or assembly pit where the fall distance is less than 10 feet?	☐ Yes	☐ No
9. Have visual warnings of fall hazards been installed?	☐ Yes	☐ No
10. Can the distance a worker could fall be reduced by installing platforms, nets, etc.?	☐ Yes	☐ No
11. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ Yes	☐ No
12. Are there any falling equipment or tools hazards for the area below the working area?	☐ Yes	☐ No
13. Does this area have additional recognized hazards such as chemical sprays or hot work?	☐ Yes	☐ No
14. Is the space designated as a Permit Required Confined Space?	☐ Yes	☐ No

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

- *Potential environmental conditions that could impact safety:*

Initials	Condition	Remarks/Recommendations

- *Possible required structural alterations:*

Initials	Alteration	Remarks/Recommendations

- *Possible task modification that may be required:*

Initials	Task	Remarks/Recommendations

- *Breakdown of vertical and horizontal movement: (sketch out work task):*

FALL PROTECTION SYSTEM

- *Best Recommended Form of Fall Protection System Based on Above Conditions:*

Initial	Equipment	Remarks/Recommendations

1. Will Recommended System Have the Capability to Support or Arrest 310lbs?	☐ **Yes**	☐ **No**

- *Training Requirements:*

Initial	Requirement	Remarks/Recommendations

- *Additional Personal Protective Equipment Required:*

Initial	Requirement	Remarks/Recommendations

☐ **Approved**

AUTHORIZATION

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Fall Hazard Assessment Checklist Reference	
Question	Program Reference
If you have answered "Yes" to any of questions 1-4	"Fall Protection Procedures" - Page 7
If you have answered "Yes" to question 5	"Exceptions" - Page 8
If you have answered "No" to question 6	"Fall Protection Plans" – Page 14
If you have answered "No" to question 7	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 8 or "No" to question 9	"Exceptions" - Page 8
If you have answered "Yes" to question 10 or "No" to question 11	"Fall Protection Systems" - Page 10
If you have answered "Yes" to question 12	"Protection From Falling Objects" - Page 9
If you have answered "Yes" to questions 13 or 14	Those additional hazards will need to be taken into consideration when selecting the best form of fall protection system

Appendix D: Fall Protection Rescue Assessment

Company Name: Address:	Specific Location: Assessor/s:
Date Assessed:	Industry Classification ☐ General ☐ Construction

Contacts: (Please list in notification priority)

Onsite Rescue Team	*Phone Number*	*24 Hour Emergency Phone Number*	*Shift Number*
Other Emergency Contacts	*Phone Number*	*24 Hour Emergency Phone Number*	

Arranged Emergency Responding Agencies: ☐ **N/A**

Agency	*Phone Number*	*Contact Name*

Local First Aid Service:

Rescue Factors:

Initials	*Arresting Area (Height)*	*Remarks/ Recommendations*
Initials	*Rescue Obstructions or Hazards*	*Remarks/ Recommendations*

Rescue Equipment:

Equipment	*Location of Equipment*
☐ Ladder	
☐ Aerial Lift	
☐ Rescue Rope	
☐ Scaffold	
☐ Crane	
☐ Rescue Pole	
☐ RSQ	
☐ Life Jacket/Ring	
☐ First Aid Supplies	
☐	

Rescue Response Procedure:
Description of rescue process: 1) Notify rescue team 2) Make medical assessment 3) Determine if emergency services need to be notified 4) If possible, have employee perform self-rescue 5) 6) *Remember that all equipment involved in a fall arrest or impact loading must be removed from service and destroyed.*

Have all members of the Rescue Team been trained in all rescue procedures for this site?	☐ **Yes** ☐ **No**

☐ **Approved** **AUTHORIZATION**

I certify that I have conducted a Rescue Plan Assessment of the above designated location and have detailed the findings of the assessment on this form.

* See attachment for additional details: ☐ Yes ☐ No

Name:	**Signature:**	
Title:	**Date:**	**Time:**

Appendix E: Fall Protection Full Body Harness Inspection Form

Harness #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer _____

P = PASS F = FAIL

		Label		Hardware				Webbing				Stitching			
Date	**Inspector Initials**	Label	Impact Indicator	Shoulder Adjustment Buckles	Leg/Waist Buckles	D-Ring	Chest Buckle	Shoulder Straps	Chest Straps	Leg Straps	Back Straps	Shoulder Straps	Chest Straps	Leg Straps	Back Straps

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware – Inspect for any corrosion, nicks, pitting, burn marks, or cracks. All buckle system grommets must be in place without any damage. Mating buckles are flush and not bent.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.

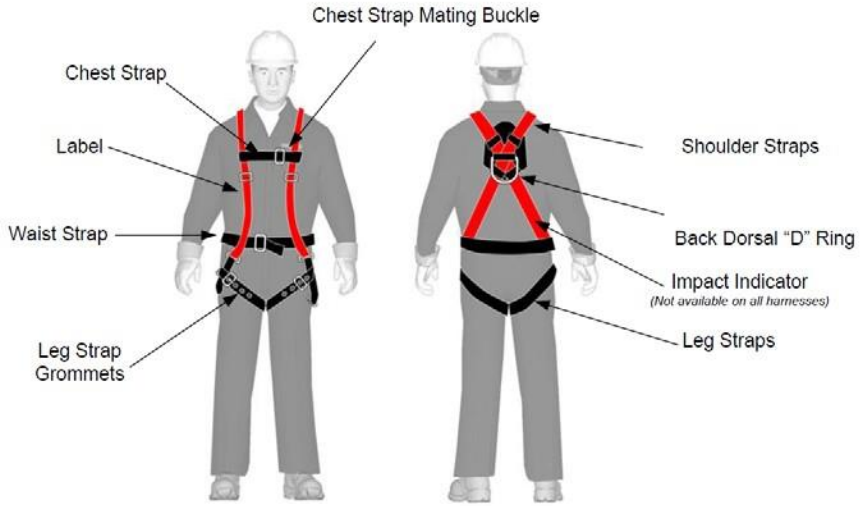
If any portion of the harness shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the harness receives any "Fails" or "F's" in the table above, then that harness must be taken out of service and discarded.

Safety Harness Inspection

Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. **FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS.**

CONDITION

1. Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. **Check for thread separation or rotting both inside and outside of the body pad.**
2. Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. **Check for distortion or sharp edges.**
3. The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. **Check for excessive elongation or distortion.**
4. Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. **Bent rivets will fail under stress.**
5. Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). **Discolored, pitted or cracked rivets may indicate chemical corrosion.**
6. Friction buckles must be inspected for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.
7. Sliding bar buckles must have the buckle frame and sliding bar inspected for cracks, distortion and sharp edges. The sliding bar should move freely. The knurled edge will slip if worn smooth. Inspect the corners and ends of the sliding bar carefully.



Appendix F:

Fall Protection Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

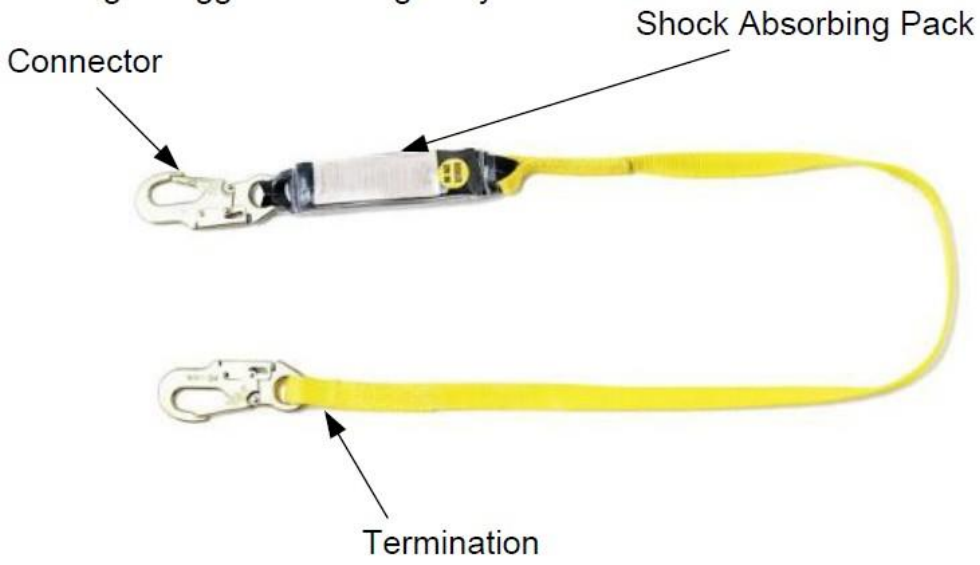
		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Cover	Casing

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors – Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, burns, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.

If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

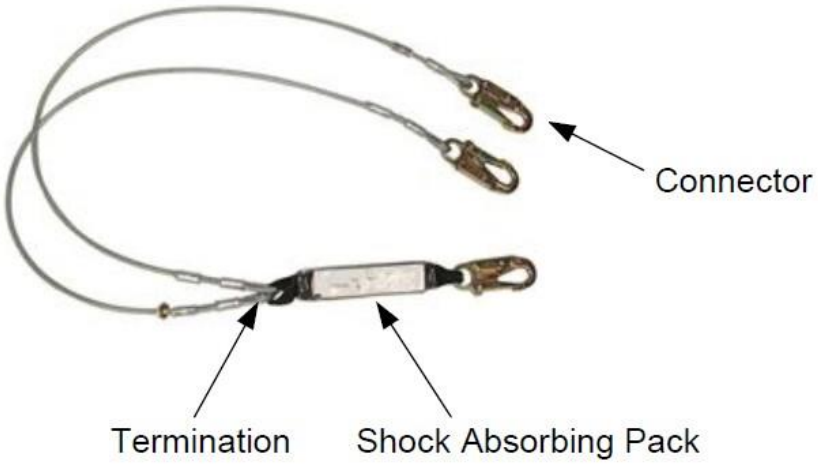
Lanyard Condition

Single Legged Webbing Lanyard

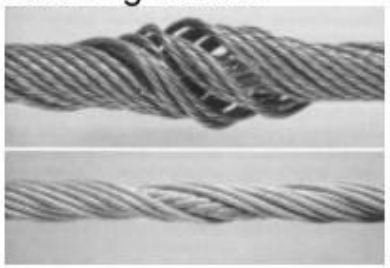


Webbing and Stitching Fraying

Double Legged Wire Rope Lanyard



Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix G: Fall Protection Self-Retracting Lanyard Inspection Form

Lanyard #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Lanyard Type_____

P = PASS F = FAIL

		Label	Connectors				Webbing		Stitching	Cable		Shock Absorbing Pack	Housing	
Date	**Inspector Initials**	Label	Metal Condition	Dual Action Lock	Rivets	Springs	Main Body	Termination	Termination	Main Body	Termination	Casing	Attach Point	Hardware

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Connectors– Inspect for any corrosion, nicks, pitting, burn marks, bends, or cracks. All connectors must unlock with a spring dual action. All rivets and springs must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
Shock Absorbing Pack – The shrink-wrapped casing or cover must not be damaged or expanded. Any impact indicators must not show expansion.
Housing – Inspect for any signs of cracks, dents, rust, or missing hardware. Attachment point is secure and free of corrosion, dents, cracks, or discoloration.

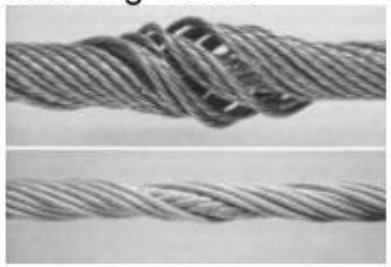
If any portion of the lanyard shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the lanyard receives any "Fails" or "F's" in the table above, then that lanyard must be taken out of service and discarded.

Self-Retracting Lanyard Condition

Self Retracting Lanyard – Cable Rope

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage

Appendix H:

Fall Protection Hardware Inspection Form

Carabiners & Snaphooks

Carabiner **OR** Snaphook (circle one)

Model_____

Serial #_____

Manufacture Date_____

Lot #_____

Purchase Date_____

P = PASS F = FAIL

		Label or Markings	Load Ratings (strength)		Specifications		Inspection			Comments
Date	**Inspector Initials**	Markings	Gate (≥16 kN)	Tensile (≥22.5 kN)	Self-Closing / Locking	Smooth Operation	Main Body	Spine	Gate & Hook-nose	

Labels & Markings – Labels or markings must be intact and legible. All acceptable carabiners and snaphooks must have a strength rating (in kilo-Newton (kN)) engraved/etched into the spine (minimum 16 kN=gate and 22.5 kN=tensile load).

Hardware Specifications– All carabiners and snaphooks must be self-closing and self-locking. The gate and lock should operate smoothly. Gates must fully close and engage nose of hook.

Inspection-Inspect for corrosion, cracks, sharp edges, burrs, bending, distortion, or other deformities. If any defective condition is identified, immediately remove the device from service and destroy.

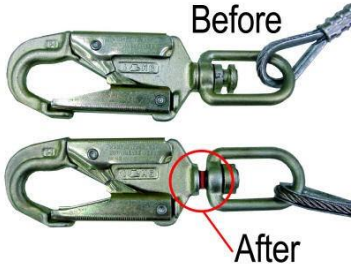
If device has been subjected to fall arrest or impact loading, remove from service and destroy.

If the hardware shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above and must be taken out of service.

Hardware Condition

Snaphook is a connector comprised 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. Snaphooks are required to be self-closing with a self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection.

Compliant connectors are stamped with strength ratings.



Carabiner is a connector generally shaped in a trapezoidal or oval body with a closed gate, or similar arrangement, that may be opened to attach another object and, when released, automatically closes to retain the object.

Appendix I:

Fall Protection Anchor Inspection Form

Anchor #_____ Company_____

Serial #_____ Date of First Use_____

Manufacturer_____ Anchor Type_____

P = PASS F = FAIL

		Label	**Hardware (if applicable)**		**Mounting Plates**			**Webbing (if applicable)**		**Stitching (if applicable)**	**Cable**	
Date	**Inspector Initials**	Label	Metal Condition	Connection Ring	Rivets	Welds	Connection Points	Main Body	Termination	Termination	Main Body	Termination

Label – Label must be intact and legible. All appropriate ANSI/OSHA markings appear. Impact indicators have not shown to be expanded.
Hardware and Mounting Plates– Inspect for any corrosion, nicks, pitting, burn marks, bends, missing screws, damaged welds, or cracks. All rivets must be present.
Webbing – Inspect for cuts, holes, frays, discoloration, paint contamination, heat damage, or excessive wear damage. Termination is the webbing end which meets the connectors.
Cable – Inspect for bird caged wire or cable separation.
Stitching – Inspect for pulled or cut stitching, heat damage, or paint contamination.
If any portion of the anchor shows any of the above mentioned defects, then that category must be marked as a "Fail" or "F" in the table above.
If the anchor receives any "Fails" or "F's" in the table above, then that anchor must be taken out of service.

Anchor Condition

Cable Sling Anchor

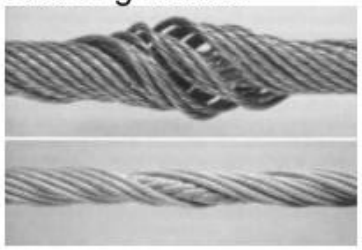
Temper Anchor

Welded Roof Anchor

Cross Arm Strap Anchor

Webbing and Stitching Fraying

Bird Caged Wire



When the outside wires on a wire rope twist and balloon out to make it look like a bird cage


DANGER
HOLE COVER
DO NOT REMOVE


CAUTION
FALL HAZARD
* OPEN PIT *