



FIRE · SECURITY

APPENDIX D. FALL PROTECTION SAFETY POLICY MAY 2024

Purpose

This policy identifies requirements to prevent, or control fall hazards 6 feet or greater in elevation from a walking/working surface. All affected employees must be competent to identify fall hazards and use fall protection equipment, devices, or systems that prevent a fall from an elevation or decreases the effect of a fall. VSC Fire & Security, Inc. (VSC) will provide all affected VSC Employees with training and adequate Fall Protection to suit the tasks and known hazards of the operation.

Regulatory Scope

These fall protection procedures, methods, and control measures comply with regulatory requirements under 29 CFR 1926.500 Subpart M. This Policy has been prepared and approved by a designated competent person knowledgeable in the areas of Safety, OSHA, and Risk Management. Should revisions be required, VSC's Risk & Safety Department (Risk-Safety) will designate similarly competent persons to complete that task.

Host Employer /Customer (non-construction projects)

VSC customers who are covered by general industry standards described in OSHA 1910.28(b)(1)(i) require fall protection for heights of 4 feet or greater. VSC employees who perform inspections or service work for customers in the following industries must comply with the 4-foot fall protection rule:

- Industrial & Manufacturing Facilities
- Corporate, Government, or Private Business Structures
- Warehouses & Distribution Facilities
- Retail Sector
- Hospitals

Responsibilities

- Management will:
 - Ensure that all affected employees are trained in all aspects of this Policy.
 - Conduct routine inspections to ensure all walking and working surfaces are free from fall hazards, including overhead fall hazards.
 - Provide adequate fall prevention and arresting equipment.
 - Provide training in the use and inspection of fall prevention and arrest equipment.
- Employees will:
 - Maintain work areas free from fall hazards.
 - Immediately report fall hazards and avoid exposure to a fall hazard until it is corrected.
 - Use proper fall prevention and arrest equipment when required by this policy.
 - Inspect fall protection equipment prior to each use for damage and immediately turn in unsafe equipment for replacement.

Required Fall Protection (Construction Industry)

It is VSC’s policy that fall protection will be required when working 6 feet or more above a lower level, except as noted above (see Host Employer section). Acceptable fall protection methods are provided in the following chart:

Type of Hazard	Type(s) of Fall Protection
Unprotected sides and edges* Residential construction Wall openings Stairwells under construction	Guardrail, safety net^, personal fall arrest systems, or restraint devices.
Hoist areas	Guardrail or personal fall arrest systems.
Holes* 2” or greater	Covers, guardrails, personal fall arrest systems.
Excavations & trench (4 ft. or greater in depth)	Fences, guardrails or covers.
Dangerous Equipment* (i.e., water storage tanks, machinery, electrical equipment)	Guardrail, personal fall arrest, safety net systems^, equipment guards, or restraint devices.
Ramps, runways, and other walking/working surfaces*	Guardrails.
Low-slope roof*	Guardrail, safety net^, or personal fall arrest systems, a combination of a warning line and guardrail systems, warning line and safety net^ systems, warning line and personal fall arrest systems, warning line and safety monitoring systems, or restraint devices.
Overhead installation of pipe, and fire protection equipment	Ladder or mechanical lift of appropriate height and the use of a Personal Fall Arrest System when working six feet or higher.

^Due to additional, specific federal standards in design, testing and competent person training requirements, VSC WILL NOT install safety nets for fall protection. For construction projects or jobsites where the owner or general contractor has installed safety nets, Risk-Safety can request records of inspections, design, and testing data to verify that the safety nets comply with federal OSHA standards.

***Definitions for Type of Hazard listed in the chart above**

Dangerous Equipment means equipment (such as water storage tanks, degreasing units, machinery, electrical equipment, and other units) which, due to form or function, may be hazardous to employees who fall onto or into such equipment.

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

Low-slope roof means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

Steep roof means a roof having a slope greater than 4 in 12 (vertical to horizontal).

Walking/working surface means 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 to perform their job duties.

Unprotected sides and edges mean any side or edge (except at entrances to points of access) of a walking/working surface. e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches high.

Leading edge means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is an "unprotected side and edge" during periods when it is not actively and continuously under construction.

PLEASE SEE VSC LADDER, SCAFFOLDING, OR ELEVATED WORK PLATFORM SAFETY POLICIES FOR FALL PROTECTION REQUIREMENTS SPECIFIC TO THESE TYPES OF OPERATIONS.

Training

VSC will provide training for each employee who might be exposed to fall hazards. Training will include the following:

- Recognizing fall hazards and overhead fall hazards.
- Procedures to follow in order to minimize fall hazards.
- Understanding the application and limits of the fall protection equipment.
- Proper hook-up, anchoring, and tie-off techniques.

- Demonstration of the proper use, inspection, and storage of equipment.

A competent person will conduct this training prior to employees using personal fall arrest equipment and positioning devices.

A competent person will be qualified in the following areas:

- Determining the nature of fall hazards in the work area.
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used.
- Design criteria for anchorage points.
- Use and operation of guardrail systems, personal fall arrest systems, safety net systems, safety monitoring systems, controlled access zones and other protection to be used.
- Role of employees in fall protection plans.

Any employee who does not comply with this training will be subject to discipline, up to and including termination of employment.

Recordkeeping

Risk-Safety will maintain training records. Records will include: employee name, training topic-to include course content and level of training (exposed employee or competent person training), date of training, certification (where applicable), and date of future training to maintain certification.

Retraining Requirements

If VSC management or Risk-Safety has reason to believe that an affected employee does not have the understanding and skill required to use fall protection systems or equipment, then the employee will be retrained. Circumstances where retraining is required include, but are not limited to:

- Changes in the workplace that renders previous training obsolete.
- Changes in the types of fall protection systems or equipment to be used.
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment.
- As a corrective measure resulting from a fall related incident or OSHA citation.

Fall Protection Systems

- Emergency Rescue Plan: When conditions exist requiring any VSC employee to use a Personal Fall Protection System, no such work will commence until the owner or general contractor and all VSC employees at the site have determined an emergency rescue plan. The emergency rescue plan will always be in effect when VSC employees are exposed to the risk.
- Fall Protection Equipment Inspection: All Fall Protection Equipment must be inspected prior to each use per the required inspection guidelines cited throughout this "*Fall Protection Safety Policy*".

For the purposes of this policy, Fall Protection Systems have been divided into two groups: **Fall Prevention Systems** and **Personal Fall Arrest Systems**. Devices within each group will be discussed separately.

Fall Prevention Systems

Guardrail Systems

Guardrail systems will meet the following criteria:

- Top-rails and mid-rails of the guardrail system will be at least one-quarter inch (0.6 centimeters) nominal diameter or thickness.
- Wire rope used for top-rails will be flagged at 6-foot intervals (1.8 meters) with high visibility material.
- Steel and plastic banding will not be used as top-rails or mid-rails.
- Manila, plastic, or synthetic rope used for top-rails or mid-rails will be inspected as frequently as necessary to ensure strength and stability.
- The top edge height of top-rails or guardrails will be 42 inches plus or minus 3 inches above the walking/working level.
- Screens, mid-rails, mesh, intermediate vertical members, or equivalent intermediate structural members will be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 21 inches high.
- Mid-rails will be installed to a height midway between the top edge of the guardrail system and the walking/working level.
- Screens and mesh, when used, will extend from the top-rail to the walking/working level and along the entire opening between top-rail supports.
- Other structural members, such as additional mid-rails and architectural panels, will be installed so that there are no openings in the guardrail system more than 19 inches.

- The guardrail system will be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction.
- When the 200-pound test is applied in a downward direction, the top edge of the guardrail will not deflect to a height less than 39 inches above the walking/working level.
- Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members will be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the mid-rail or other member.
- Guardrail systems will be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.
- The ends of top-rails and mid-rails will not overhang terminal posts, except where such overhang does not constitute a projection hazard.
- A chain, gate or removable guardrail section will be placed across the access opening between guardrail sections when hoisting operations are not taking place.
- At holes, guardrail systems will be set up on all unprotected sides or edges.

VSC employees working on construction projects must report missing or damaged guardrails to the VSC supervisor and general contractor and implement a personal fall arrest system before proceeding with work. All workers within the fall hazard must be warned of the hazard. When a personal fall protection system is not feasible (e.g. no anchorage points), and no responsible contractor or owner is on site, then VSC employees trained in erecting guard rails may correct the hazard. Temporary fall protection, to protect the employee working on guard rails, must be in place when undertaking the erection, repair or dismantling of guardrails when a fall hazard is present.

Hole Covers

Any opening through a floor greater than 2 inches at the least point must be covered, secured, and labeled. Coverings will support at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time. To prevent accidental displacement resulting from wind, equipment, or workers' activities, all covers will be secured and be color-coded or bear the marking "HOLE" or "COVER." Remember: "2 inches; twice the weight"

VSC employees working on construction projects must report missing, damaged, or unsecured hole covers to the VSC supervisor and general contractor and implement a personal fall arrest system before proceeding with work. All workers within the hole opening must be warned of the hazard. When a personal fall protection system is not feasible (e.g. no anchorage points), and no responsible contractor or owner is on site, then VSC employees trained in constructing and securing a hole cover may correct the hazard. Temporary fall protection, to protect the employee working on a hole cover, must be in place when undertaking the repair or replacement of a hole opening when a fall hazard is present.

Object on top of hole covers

Avoid operating any equipment, placing material, or setting up a ladder on top of hole covers. When job tasks require operating any mechanical equipment, such as scissor lifts, or placing a ladder on top of a hole cover, the supervisor must verify and document with the owner or host contractor the load capacity of the hole cover. **Do not proceed** if the load capacity of a hole cover cannot be determined.

Overhead Fall Hazards

As described fully in Regulatory scope 29 CFR 1926.501(c) Subpart M, *Overhead Fall Hazards* are situations where an employee is exposed to falling objects which can result in injury or property damage.

Examples of overhead hazards:

- Working or walking beneath other trades who are performing tasks at upper surface levels or from elevated work platforms such as scissor lifts, scaffold, aerial lifts, and ladders.
- Areas directly underneath or within struck-by hazard zones of material handling/lifting operations such as cranes and forklifts.
- Unsecured equipment, materials, or tools placed within 6 feet of an open edge, a hole, or roof that can be dropped or bumped off to lower levels.
- Client/Customer work environments may have production facilities with multiple overhead operations such as conveyors or mechanical processes from which product or materials can be dropped. The customer's employees may also perform tasks in elevated work zones that can result in objects falling to a lower level.

Overhead Fall Hazards Prevention

Examples and acceptable practices:

- When exposed to overhead fall hazards, all employees must wear hard hats.
- Owner or GC must erect toe boards, screens, or guardrail system to prevent objects from falling from higher levels.
- Erect a canopy structure over walkways, entrances and exits of building.
- Keep potential fall objects far enough from the edge of higher levels so that those objects would not go over the edge if they were accidentally displaced.
- Barricade the area where objects could fall and prohibit people from entering the barricaded area.
- Keep objects, such as plywood or pipe that can fall outside of the ground level barricade zone, from the edge of higher levels.
- Use tethers on tools and small equipment.

Project Site Pre-Planning:

- VSC's site supervisor will use the VSC site safety check list to identify all fall hazards and protection methods to be used at the jobsite.
- VSC's job-site crew will be properly trained on VSC's Fall Protection Safety Policy and adhere to the requirements.
- VSC's site Supervisor must attend GC project pre-construction meeting to obtain contractor required overhead fall protection.
- Document & train crew before project start date on all job site fall protection requirements.
- Instruct any new employees assigned to project, before their start date, on fall hazards & preventative measures.
- Report and document any missing or damaged overhead fall protection methods to GC and VSC Safety Manager. Stop all work within the fall hazard until corrected.
- Report and document any violation by other trades, within VSC's work zone, to the owner or GC.
- Conduct & document weekly site safety audits and safety meetings for duration of project to ensure compliance.
- VSC employees must erect a barricade or use a spotter in areas below VSC's elevated work platforms and ladders when there is the potential to drop objects and strike other people. This includes work areas situated in owner occupied spaces where any person could walk by or into VSC's work zone.
- Precautions must be taken to protect clients' employees, staff, customers, and residents from dropped objects when working in overhead areas of occupied properties. Use barricades or a spotter at the floor level, near ladders, and by lift equipment. Arrange with management restricted pedestrian access when necessary.
- All accidents with or without injury must be fully investigated before proceeding with work. *"The next dropped object might actually hit someone."*

Personal Fall Arrest Systems

- Note: Body belts and non-locking snap hooks are not acceptable as part of a Personal Fall Arrest System.
- The Personal Fall Arrest System (PFAS) is defined as: 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 combination of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.
- All such components shall be capable to withstand a load of at least five thousand (5,000) pounds. The total free fall shall not exceed six (6) feet. Anchorage/tie off points and components shall be capable of supporting at least five thousand (5,000) pounds or has a fall arrest system that maintains a safety factor of two with a maximum arresting force of 1,800 pounds on an employee.
- No PPE will be modified in any fashion without the express written instructions from the equipment manufacturer.
- No components of fall arrest equipment, including Harness or Lanyard, can be used for rigging, lifting, or securing material or equipment.
- PFAS and components with defect(s) will be immediately taken out of use and returned to the users Supervisor for replacement.
- Risk-Safety will be responsible for the training of employees on PFAS. This training will be conducted prior to the use of personal fall arrest equipment. Training will include:
 - Understanding the application limits of the equipment.
 - Proper hook-up, anchoring, and tie-off techniques.
 - Demonstration of the proper use, inspection, and storage of equipment.

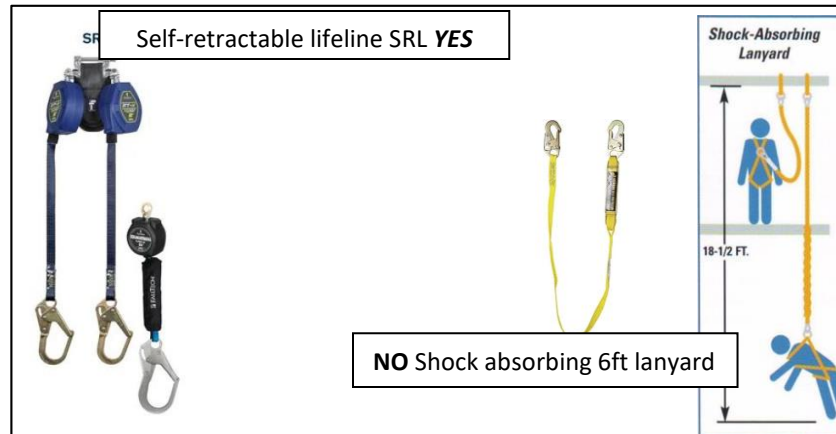
Criteria for Selection

PFAS are to comply with ANSI Z359.1 and will:

- Limit the maximum arresting force on a falling employee to 1,800 pounds when used with a body harness.
- Bring a falling employee to a complete stop and limit the maximum deceleration distance an employee travels to 3.5 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling 6 feet, or the free fall distance permitted by the system, whichever is less.

LANYARDS

- Due to the free fall distance of 18ft to 25 ft required for a 6ft. shock absorbing lanyard to arrest a fall, VSC employees **will not use** these types of lanyards.
- VSC employee will only use Self Retractable Lifelines (SRL) lanyards as seen below:



Use and Care of Systems and System Components

VSC will require, and all employees will take responsibility for, the care and maintenance of their personal fall arrest system. Prior to each use, PFAS will be inspected by the user for:

- Mildew
- Wear
- Damage and other deterioration that may limit its protective properties.
- The anchorage point for tying will be designed, installed, and used as a complete fall arrest system that will maintain a safety factor of at least two.
- Lanyards will be attached to employees as follows:
 - For Personal Fall Arrest Systems, the attachment point of a body harness will be located in the center of the wearer's back near the shoulder level.
 - The anchorage point should be above the wearer's head.
 - Only one lanyard can be connected to a harness.
 - When anchorage points or length of lanyard restrict movement, a retractable lanyard can be used when extra length is needed to access the work area.
 - Retractable lanyard must connect directly to the back D-ring.
 - Where anchorage point of a lanyard or elevation of working height is low enough that a worker will encounter a lower surface in the event of a fall, a retractable lanyard will be used.
 - The harness lanyard will not be used in combination with a retractable lanyard.
- Anchorage points used for the attachment of personal fall arrest equipment will be independent of any anchorage being used to support or suspend platforms. Anchorages will be capable of supporting at least 5,000 pounds per employee attached, or will be designed, installed, and used as follows:
 - As part of a complete Personal Fall Arrest System which maintains a safety factor of at least two.
 - Under the direction and supervision of a competent person.

Criteria for the Use of Safety Harnesses

VSC Supervisor's will require that affected employees use a fall arresting or positioning system attached to hook-off points when working six (6) feet or more above a solid surface that is not properly guarded.

The hook-off point will be at a height that allows the worker to be suspended above the solid surface in the event of a fall. The hook-off point above a solid surface is determined by adding the length of the lanyard, extended shock absorber, and the employee's height.

Safety harnesses will meet the requirements of ANSI Z359.1.

Inspection and Maintenance of Fall Protection Equipment

Personal Fall Arrest Equipment (body harness & lanyard) that deployed in a fall must be taken out of service and replaced immediately.

Prior to each use, fall protection equipment will be inspected (see Use and Care of Systems and System Components in this “*Fall Protection Safety Policy*”).

VSC Supervisor’s will perform monthly documented inspections for wear, damage, and corrosion applying the following Inspection criteria:

- Inspect all hardware for signs of excessive wear, cracks, corrosion, or deformation. It is important that special attention be given to those areas where the hardware comes in contact with belt fabric.
- Tensioning device (buckle tongue and roller or friction device) must be free of corrosion and deformation and should move freely on the buckle frame.
- “D” Rings must be free of deformation. At no time should any other equipment be attached to the “D” ring.
- Grommets must be in line and evenly spaced.
- The Manufacturer’s Identification Plate must be intact and legible.
- Webbing will be inspected for cuts, abrasions, wear, and burns.
- Rivets will be tight and unmovable.
- Inspect for loose or broken stitching.
- VSC Best Practice requires replacement of harness when the manufacturers date printed on the ANSI labeling is greater than five years from the calendar date of your inspection.

Procedure for Lanyards

- When inspecting lanyards, the following should be completed:
 - Begin at one end and work to the opposite end.
 - Rotate the lanyard slowly so the entire circumference is checked.
 - If there are signs of swelling, cracking, charring or discoloration, discontinue use.
 - Snaps should be inspected for hook and eye distortions, cracks, corrosion, or pitted surfaces.
 - The latching mechanisms should seat properly.
 - Any retractable lanyard that has experienced an actual operation shall be immediately removed from service. (This is usually identified by a telltale tag)

Lifelines and lanyards must be protected against cuts, abrasions, burns from hot work operations, and deterioration by acids, solvents, and other chemicals.

Defective equipment will be removed from service and returned to VSC for replacement or repair.

Lanyard and Harness Cleaning

Cleaning of equipment should occur on a routine basis and consist of the following:

- Wipe off all surfaces with plain water and a damp sponge.
- Wipe off all surfaces using a mild solution of water and detergent.
- Wipe the belt clean with a clean cloth.
- Hang the harness to dry.

Third Party Equipment

Fall protection equipment supplied by another contractor will not be used by VSC employees unless the employee’s (users) VSC Division Manager has approved such usage. VSC employees will not loan VSC fall protection equipment to other contractors.

Reporting Requirements

It is the responsibility of the VSC employee to report all fall hazards to his/her Supervisor. The Supervisor or company representative is responsible for reporting all fall hazards found while working at the host facility to the host company’s designated individual.

