




Fall Protection


JENNIFER MILES

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About Me

- Territory Manager with Sales Solutions Inc. for VA and WV
 - 16 years of Safety Experience
 - EM385.1 Fall Protection Trained
 - Authorized OSHA Construction Instructor
 - Chapter President for Virginia ATTSA
 - Former President of Tidewater ASSP Chapter
 - ABC Safety Committee Vice Chair
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What we are going to cover:

- Statistics on injuries and fatalities
 - Causes of injuries and fatalities
 - Slips, Trips and Falls
 - How can these injuries and fatalities be avoided
 - Hierarchy of Fall Protection Safety
 - PFAS
 - Reminder of some important standards
- 



Safety Alert



Recent Increase in Fall of Person Accidents

28 miners have died after falling from heights over the last 10 years.

Deaths from falls have increased from 8% to 19% of mining fatalities in the last two years.

- Working without fall protection on top of trucks, in aerial lift baskets, and while accessing and egressing other mobile equipment
- While performing maintenance on crushers, screens, conveyors, and other milling equipment

MSHA issued 92 imminent danger orders for people working at heights without fall protection between January 2019 and June 2020. The most common violations were truck drivers climbing atop their vehicles, and maintenance and quarry personnel climbing to or working without fall protection in high places. Supervisors have been ordered down from dangerous locations.

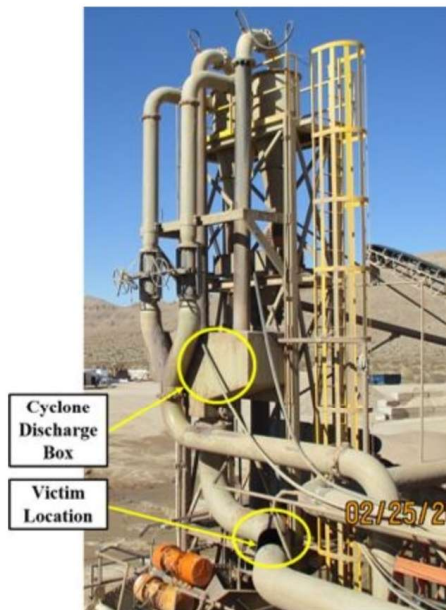


A truck driver fell 9 1/2 feet while adjusting the tarp. He had climbed up the side of the truck into the bed and fell while walking on loose sand.



A miner fell 28 feet from an aerial lift basket. While he was wearing a fall protection harness it was not attached to the basket's anchor point.

MINE FATALITY – On Feb. 25, 2021, a 26-year old plant operator died after entering a cyclone discharge box. The local fire department recovered the victim lodged in an 18-inch wide discharge pipe that was full of water.



Best Practices:

- **Wear a fall protection harness, properly tie off to a permanent support structure, and attach a lifeline** when entering a bin or other confined space. Have a second person monitor the lifeline to make sure there is no slack in the fall protection system.
- **Use personnel lifts or ladders** to safely access elevated work areas.
- **Always use fall protection** when there's a potential fall hazard.
- **Examine work areas and equipment.** Report defects and do not use unsafe work equipment.
- **Assess risks and hazards** before beginning maintenance activities.
- **Train miners** to safely perform their tasks and properly use their personal protective equipment.

MINE FATALITY – On July 26, 2021, a contract employee, who was not wearing fall protection, was performing maintenance on a cement cooler when a wooden board broke, causing him to fall 23 feet onto a concrete floor.



Best Practices:

- **Assure a safe means of access** is provided and maintained to all working places. Use personnel lifts or ladders to access elevated work areas safely.
- **Use fall protection** when a fall hazard exists. Ensure fall protection has a suitable fall arrest and secure anchorage system.
- **Examine work areas, tools, and equipment.** Report and correct defects. Do not use unsafe equipment.
- **Assess risks and eliminate or control hazards** before beginning maintenance activities. Do not place yourself in a position that will expose you to hazards while performing a task.
- **Train miners and ensure they perform work safely, use tools properly, and utilize personal protective equipment correctly.**

MINE FATALITY – On June 20, 2022, a contract driller was working outside of his drill when he fell from the top of a highwall.



Best Practices:

- Wear fall protection when there is a danger of falling. Assure fall protection has a suitable fall arrest and a secure anchorage system.
- Train miners to properly use their personal protective equipment and to recognize potential hazards from falls and to safely perform tasks.
- Provide communication systems when assigning miners to work alone.

Additional Information:

This is the 14th fatality reported in 2022, and the second classified as “Slip or Fall of Person.”

MINE FATALITY – On January 14, 2022, a 44-year-old contract laborer with 13 years of total experience received fatal injuries when he fell 27 feet to a concrete surface. At the time of the accident, the contractor was on a belt conveyor in a preparation plant and was working to replace a belt conveyor roller.



Best Practices:

- **Establish and follow safety policies and procedures, when working at heights.**
- **Train miners** to use fall protection when a fall hazard exists.
- **Ensure fall protection is available and properly maintained.**
- **Provide identifiable and secure anchor points** to attach lanyards and lifelines.
- **Provide mobile or stationary platforms—or scaffolding—where** there is a risk of falling.

Preliminary Report of Accident

U.S. Department of Labor
 Mine Safety and Health Administration **MSHA**

PR001 10/25/2022

1. Accident Type F - Fatal Injury		2. Accident Classification 18 - Slip or Fall of Person		3. Date/Time of Accident 10/17/2022 1:00 PM		4. Date/Time of Death 10/17/2022 1:00 PM		5. Fatal Case No FAI-6932808-1		
6. Mine Information										
a) Mining Company Name:		Holcim (US) Inc.								
b) Mine Name:		Holcim (US) Inc-Ada Plant								
c) Parent of Mining Company:		Holcim Ltd								
7. Mine Location Information										
a) City ADA		b) County Pontotoc		c) State OK		8. Mine ID Number 34-00023		9. Union Yes		
10. Primary Mineral Mined Hydraulic Cement				11. Number of Employees		d) Mill/Prep Plant 115		e) Other 0		
a) Total 130		b) Underground		c) Open Pit/Quarry 15						
12. Contractor Name					13. Contractor Union		14. Contractor ID Number			
15. Contractor Address										
a) City		b) County			c) State		d) Zip Code			
16. Number of Contractor Employees										
a) Total		b) Underground		c) Open Pit/Quarry		d) Mill/Prep Plant		e) Other		
17. Number of Persons in Mine at Time of Accident					18. Number of Persons Unaccounted for					
a) Mine Employees 88		b) Contractor Employees			a) Mine Employees 0		b) Contractor Employees			
19. Accident Location 30 - Mill/Prep Plant										
21. Nonfatal Injuries 0								22. Fatal Injuries 1		
20. Mining Height 50 Feet 0 Inches										
23. Victims Information										
Brandon K Morgan										
a) First Name Brandon		a) MI K	a) Last Name Morgan		b) Age 32	c) Regular Job Title Laborer		d) Activity at Time of Accident Clean up		Employee Mine Employee
24. Mining Experience										
a) Total Experience 0 Years 9 Weeks 0 Days		b) Experience at the Mine 0 Years 9 Weeks 0 Days		c) Experience at the Activity at the Time of the Accident 0 Years 9 Weeks 0 Days			d) Experience with Contractor Years Weeks Days			
25. Autopsy Performed Yes										
If Yes, Location Oklahoma City, OK										
26. Mine Telephone No. (580) 421-8901										
27. Description of Accident (include equipment involved, the exact location in the mine, and status and recovery operations) A miner died when he fell approximately 80 feet from the sixth floor of the plant's mill building. <i>The information provided in this notice is based on preliminary data ONLY and does not represent final determination regarding the nature of the incident or conclusions regarding the cause of the accident.</i>										
28. Equipment Manufacturer Not listed N/A					29. Model N/A					
30. District M5000 - Dallas District					32. Field Office M5861 - Norman OK Field Office			33. Event Number 6932808		
34. Accident Investigator										
First Name Dwight		MI MI	Last Name Shields							
35. MSHA Person Notified										
First Name Ty		MI MI	Last Name Fisher			Date/Time Notified 10/17/2022 1:35 PM				
36. Type of Report Initial		37. Name of Preparer Full Name Bredy Haddock			Date Prepared 10/17/2022					
38. Reason for Amendment										

49% of the fatalities were from falls from a higher level.

18% falls from stairs or ladders

11% falls into water

7 % falls from equipment

5% falls from a truck or trailer

5 % falls into material

Over 50% of MSHA-issued imminent danger orders at metal/nonmetal mines were associated with fall risk (2010-2017). Of the imminent danger orders related to fall risk, 84% involved the workers not using fall protection, fall protection not being provided, or the improper use of fall protection.

Tasks commonly performed by miners when the imminent danger order was issued were standing on mobile equipment, performing maintenance and repairs on plant equipment, or working near highwalls. Using fall protection would have prevented the imminent danger order from being issued and allowed the task to be completed safely.

What are Slips, Trips, and Falls?



Slip: A slip occurs when the foot unintentionally slides on a walking or working surface.



Trip: A trip occurs when the foot gets caught on an object or obstruction while walking.




Fall: Slips and trips can lead to falls, as can other hazards in the mining environment. Falls can occur to the same level or to a lower level.

Slip, trip, and fall (STF) hazards in mining environments pose safety risks to mine workers. According to an analysis by NIOSH researchers of MSHA data, about 22% of all non-fatal injuries reported to the Mine Safety and Health Administration (MSHA) between 2014 and 2018 were associated with STF incidents. Each STF incident led to an average of 60 lost workdays.

For stone, sand, and gravel (SSG) operators, slips, trips, and falls occurred at a rate of 62 per 10,000 full-time equivalent employees per year (2008-2017) and led to approximately 23,800 total days lost per year, at an estimated cost of about \$17.5 million per year (2008-2017). In addition, STF hazards identified during MSHA inspections cost the SSG mining sector approximately \$3 million per year in assessed violations (2013-2017).

STF hazards can also lead to fatal incidents. Between 2006 and 2015, STF incidents accounted for 55 or approximately 11% of all surface mining fatalities.

What Could have Prevented the Fatalities:

- Proper use of Fall Arrest System- could have prevented 33% of these fatalities
 - Use of Proper PPE if restraint cannot be used
 - Fixing equipment, not modifying or using equipment past the manufacturer's recommendations (13%)
 - Providing proper barriers where necessary, to prevent inadvertent contact (8%)
 - Keeping work areas clean of trip hazards
- 

What can mining companies do to protect miners?

Design equipment to prevent or minimize hazards when at height.

- Design truck loadout areas with a system to close hatches/tarps
- Truck loadout systems can be designed to include elevated guarded platforms
- When looking to purchase new equipment look for features that eliminate the need to work at heights

Inspect and maintain equipment.

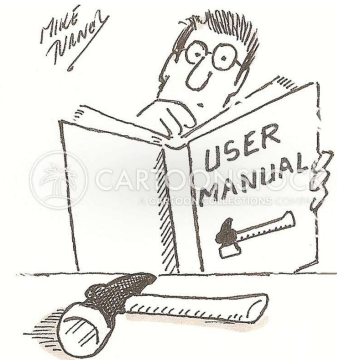
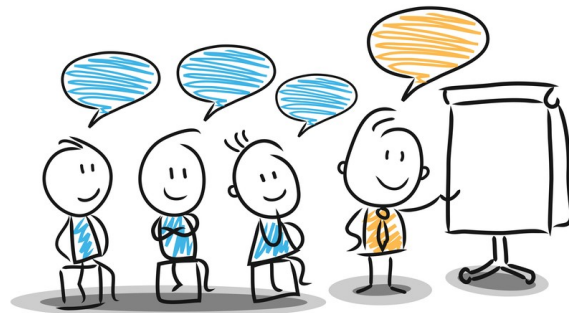
- Look for defects and fix damaged and improperly modified equipment
- Regular maintenance and inspection can help identify the hazardous conditions and prevent injuries





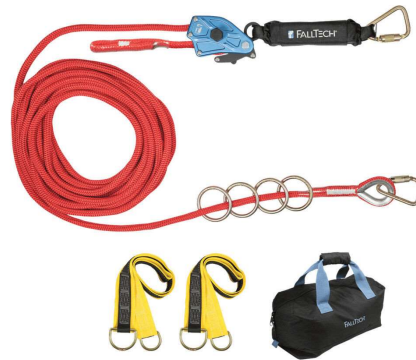
Establish and use operating procedures and provide adequate training.

- Having safe operating procedures (documented) and ensuring that they are followed
- Annual trainings and frequent reviews of the procedures are important
- Have the training available for employees to review when they need too
- Include the manufacturers instructions on the dos and don'ts of their equipment
- Keep it simple and easy for everyone to understand. Provide in all languages needed.
- MSHA Part 46 or 48 training, and **SITE-SPECIFIC HAZARDS TRAINING**

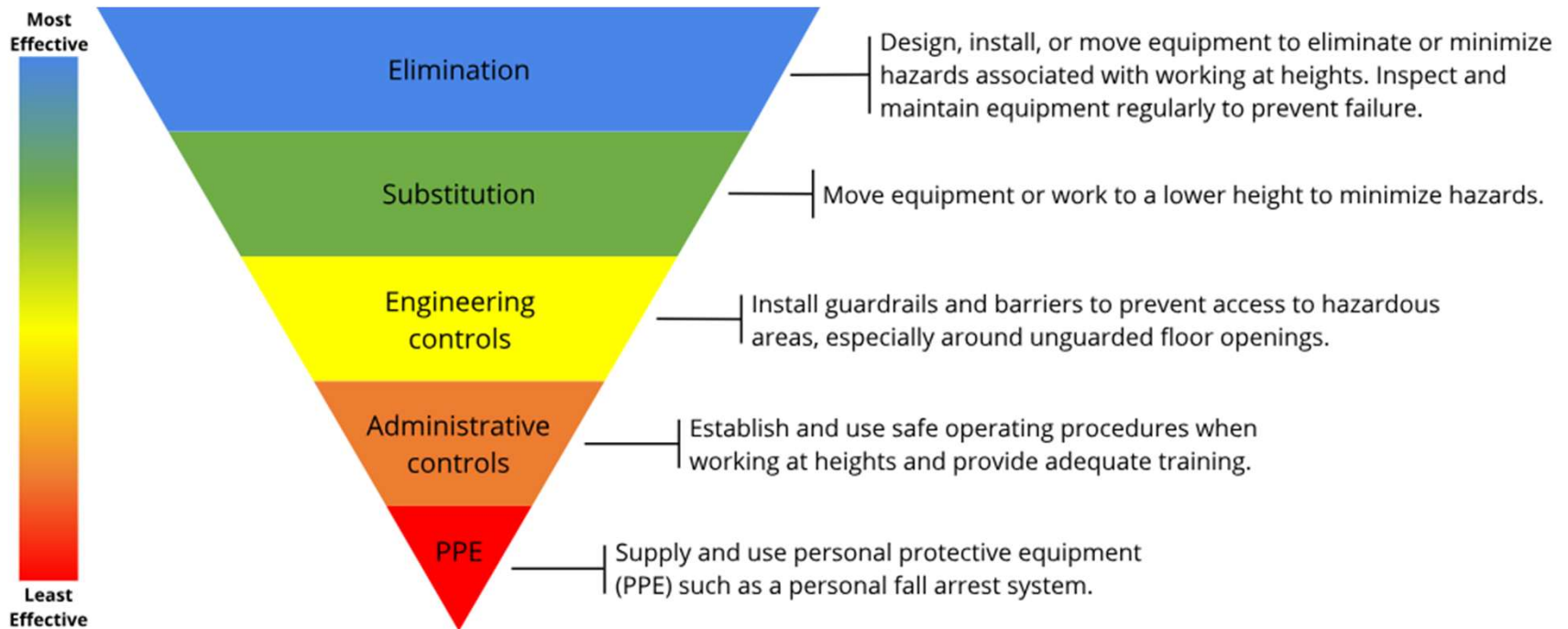


Supply personal fall arrest systems:

- Mines should supply appropriate harnesses fitted to each miner's height and weight, as well as designed for the task and stored near the location of the task where it will be needed
- Adequate tie-off points should be designed into the work environment and clearly labeled, and miners should be trained in using the PFAS products to ensure proper use. (This should be conducted at least annually)
- Proper record keeping of annual and by annual inspections

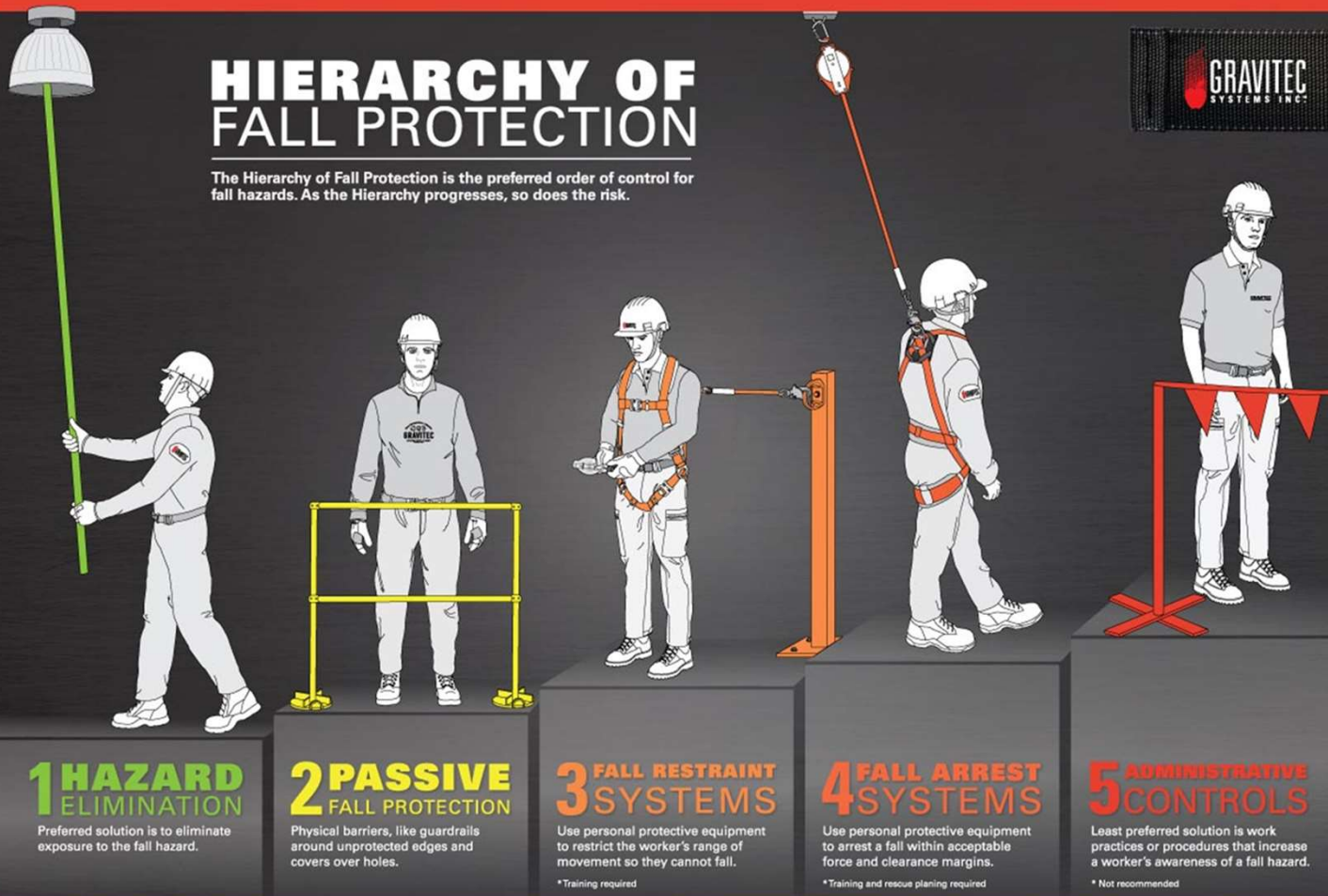


Hierarchy of hazard controls:



HIERARCHY OF FALL PROTECTION

The Hierarchy of Fall Protection is the preferred order of control for fall hazards. As the Hierarchy progresses, so does the risk.



1 HAZARD ELIMINATION

Preferred solution is to eliminate exposure to the fall hazard.

2 PASSIVE FALL PROTECTION

Physical barriers, like guardrails around unprotected edges and covers over holes.

3 FALL RESTRAINT SYSTEMS

Use personal protective equipment to restrict the worker's range of movement so they cannot fall.

*Training required

4 FALL ARREST SYSTEMS

Use personal protective equipment to arrest a fall within acceptable force and clearance margins.

*Training and rescue planning required

5 ADMINISTRATIVE CONTROLS

Least preferred solution is work practices or procedures that increase a worker's awareness of a fall hazard.

* Not recommended

Personal Fall Protection Systems

ANCHORS:

OSHA states that all anchorages designed for individual fall arrest shall be designed with a minimum 1,800 pound load with a 2 to 1 safety factor = 3,600 pounds minimum

In absence of certification, OSHA states that the minimum design load of individual anchorage's must meet 5,000 pounds.

Anchors shall be inspected every 6 months by a competent person.



Harnesses:

- Body belts are ONLY allowed for position and restraint
- A full Body Harness is required when in Fall Arrest
- The full-body harness has straps that distribute the impact of a fall over the thighs, waist, chest, shoulders, and pelvis.
- The harness must be made from synthetic fibers.
- Use only industrial full-body harnesses (not recreational climbing harnesses).
- It should meet ANSI standards



Positioning Lanyards:

- Work positioning lifelines are never supposed to be subjected to free fall forces.
- They are designed to prevent a worker (restraint) from accessing an exposed leading edge or designed to support a worker as they work with their hands at elevations such as on wall forms during rebar tie.



Shock Absorbing Lanyards:

- Designed for a maximum free-fall of 6 feet or less. Unless otherwise specified by the manufacturer.
- Deceleration distance not to exceed 48”.
- Must incorporate the use of double locking, auto locking snap hooks (5000 lbs. rated with gate rated to 3600 lbs.)
- Must not be attached back into themselves unless a compatible connector is integral to the webbing or cable.
Simply stated, do not choke back the lanyard directly to itself.
- **Need 18’ of clearance**



Self Retracting Devices:

- Self-Retracting Devices are designed to provide the highest level of safety possible in the event of a fall.
- SRD's automatically extend and retract as a worker maneuvers in your work position. In the event of a fall, they are designed to arrest the fall in under two feet and to dissipate the forces to a level that meets OSHA and ANSI limits.
- SRD's work quickly, smoothly and automatically to ensure that a fall is arrested and to minimize the injuries typically attributed to clear-fall hazards.
- These SRD's are lightweight, durable (Dyneema Webbing) and are available in single leg or twin leg configurations



Fall Protection in Lifts:

- Use ONLY manufacturer approved anchor points
- Recommend using a small retractable or a restraint lanyard
- **MUST USE HARNESS**
- **NEVER** climb up on rails
- **REMEMBER:** Lanyards need 18' of clear fall distance





CALCULATING FALL CLEARANCE

ANSI Class-A Self Retracting Lifelines Overhead Anchorage

A	2 ft	Activation/Deceleration Distance Maximum allowable length of lifeline that may payout from the SRL once user deceleration has begun after a fall event	
B	1 ft	Harness Stretch/D-Ring Shift Combined amount of harness webbing elongation and dorsal D-ring up-shift during entire fall event	
C	1½ ft	Safety Factor Added length to account for other factors such as an improperly adjusted harness, actual worker height or worker weight	
D	4½ ft	Total Minimum Required Fall Clearance	

ANSI Class-B Self Retracting Lifelines Overhead Anchorage

A	4½ ft	Activation/Deceleration Distance Maximum allowable length of lifeline that may payout from the SRL once user deceleration has begun after a fall event	
B	1 ft	Harness Stretch/D-Ring Shift Combined amount of harness webbing elongation and dorsal D-ring up-shift during entire fall event	
C	1½ ft	Safety Factor Added length to account for other factors such as an improperly adjusted harness, actual worker height or worker weight	
D	7 ft	Total Minimum Required Fall Clearance	

6' Free Fall Energy Absorbing Lanyard Overhead Anchorage

A	6 ft	Lanyard Length Original working length before a fall event occurs and before activation of energy absorber	
B	4 ft	Deceleration Distance Maximum allowable elongation that may payout from the energy absorber upon activation during a fall event	
C	1 ft	Harness Stretch/D-Ring Shift Combined amount of harness webbing elongation and dorsal D-ring up-shift during entire fall event	
D	5 ft	Dorsal D-Ring Height Typical average height of the user's Dorsal D-Ring measured from the walking/working surface up	
E	1½ ft	Safety Factor Added length to account for other factors such as an improperly adjusted harness, actual worker height or worker weight	
F	17½ ft	Total Minimum Required Fall Clearance	

12' Free Fall Energy Absorbing Lanyard Foot Level Anchorage

A	6 ft	Lanyard Length Original working length before a fall event occurs and before activation of energy absorber	
B	5 ft	Deceleration Distance Maximum allowable elongation that may payout from the energy absorber upon activation during a fall event	
C	1 ft	Harness Stretch/D-Ring Shift Combined amount of harness webbing elongation and dorsal back D-ring up-shift during entire fall event	
D	5 ft	Dorsal D-Ring Height Typical average height of the user's Dorsal D-Ring measured from the walking/working surface up	
E	1½ ft	Safety Factor Added length to account for other factors such as an improperly adjusted harness, actual worker height or worker weight	
F	18½ ft	Total Minimum Required Fall Clearance	

Warning: Fall Clearance calculations shown above do not account for additional fall clearance distances caused by Swing Fall; see owner's manual for details.

INSPECTION FORM: Anchor Point



OSHA 1926.502(d)(21)
Personal fall arrest systems SHALL be inspected prior to each use for wear, damage, and other deterioration, and defective components SHALL be removed from service.



6.1 Inspection
6.1.1 Equipment SHALL be inspected by the user before each use and, additionally, by a competent person other than the user at intervals of no more than one year.

Frequency of inspection in the following categories:

General Industry: _____ Construction: _____

Your Organization: _____ Manufacturer: _____

Manufacturer of equipment:

Name of Manufacturer: _____

Serial #: _____ Model #: _____

Date of Manufacture: ___/___/___

Inspection:

Date: ___/___/___

Name of competent person:

Name of user (authorized person):



LOOK AT: **1** HARDWARE **2** WEBBING
3 STITCHING **4** LABELS/TAGS

1	HARDWARE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rust/corrosion			
Deformed/bent			
Burrs/cracks			
Weld spots/slag			
Missing rivets			
Springs			
Functionality			
Other			

2	WEBBING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cuts/burns/holes			
Excessive wear			
Excessive UV damage			
Chemical attack			
Other			

3	STITCHING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missing			
Loose			
Broken			
Other			

4	LABELS/TAGS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missing			
Illegible			
Dates			
Other			

PASS FAIL

INSPECTION FORM: Self-Retracting Lifeline



OSHA 1926.502(d)(21)
Personal fall arrest systems SHALL be inspected prior to each use for wear, damage, and other deterioration, and defective components SHALL be removed from service.



6.1 Inspection
6.1.1 Equipment SHALL be inspected by the user before each use and, additionally, by a competent person other than the user at intervals of no more than one year.

Frequency of inspection in the following categories:

General Industry: _____ Construction: _____

Your Organization: _____ Manufacturer: _____

Manufacturer of equipment:

Name of Manufacturer: _____

Serial #: _____ Model #: _____

Date of Manufacture: ___/___/___

Inspection:

Remove from service when:

Date: ___/___/___ Date: ___/___/___

Name of competent person:

Name of user (authorized person):



LOOK AT: **1** HARDWARE **2** WEBBING
3 STITCHING **4** LABELS/TAGS

1	HARDWARE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rust/corrosion			
Deformed/bent			
Burrs/cracks			
Weld spots/slag			
Missing rivets			
Springs			
Functionality			
Other			

2	WEBBING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cuts/burns/holes			
Excessive wear			
Excessive UV damage			
Chemical attack			
Other			

3	STITCHING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missing			
Loose			
Broken			
Other			

4	LABELS/TAGS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missing			
Illegible			
Dates			
Other			

PASS FAIL

INSPECTION FORM:

Full Body Harness



OSHA 1926.502(d)(21)

Personal fall arrest systems SHALL be inspected prior to each use for wear, damage, and other deterioration, and defective components SHALL be removed from service.



6.1 Inspection

6.1.1 Equipment SHALL be inspected by the user before each use and, additionally, by a competent person other than the user at intervals of no more than one year.

Frequency of inspection in the following categories:

General Industry: _____ Construction: _____

Your Organization: _____ Manufacturer: _____

Manufacturer of equipment:

Name of Manufacturer: _____

Serial #: _____ Model #: _____

Date of Manufacture: ___/___/___

Inspection:

Date: ___/___/___

Name of competent person:

Name of user (authorized person):



LOOK AT: **1** HARDWARE **2** WEBBING
3 STITCHING **4** LABELS/TAGS

1	HARDWARE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Rust/corrosion	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Deformed/bent	<input type="checkbox"/>	<input type="checkbox"/>
	Burrs/cracks	<input type="checkbox"/>	<input type="checkbox"/>
	Weld spots/slag	<input type="checkbox"/>	<input type="checkbox"/>
	Missing rivets	<input type="checkbox"/>	<input type="checkbox"/>
	Springs	<input type="checkbox"/>	<input type="checkbox"/>
	Functionality	<input type="checkbox"/>	<input type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>

2	WEBBING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Cuts/burns/holes	<input type="checkbox"/>	<input type="checkbox"/>
	Excessive wear	<input type="checkbox"/>	<input type="checkbox"/>
	Excessive UV damage	<input type="checkbox"/>	<input type="checkbox"/>
	Chemical attack	<input type="checkbox"/>	<input type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>

3	STITCHING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Missing	<input type="checkbox"/>	<input type="checkbox"/>
	Loose	<input type="checkbox"/>	<input type="checkbox"/>
	Broken	<input type="checkbox"/>	<input type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>

4	LABELS/TAGS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Missing	<input type="checkbox"/>	<input type="checkbox"/>
	Illegible	<input type="checkbox"/>	<input type="checkbox"/>
	Dates	<input type="checkbox"/>	<input type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>

PASS FAIL



DONNING AND ADJUSTING FULL BODY HARNESS



STEP 1
Holding the harness by the dorsal D-ring, shake it to allow all straps to hang freely and untwisted.
If chest, leg, and belt buckles are fastened - unbuckle all.



STEP 2
Place the shoulder straps over each arm and shoulder - like putting on a jacket.
Position the dorsal D-ring in the middle of your back and between the shoulder blades.



STEP 3
Pull leg straps up and between legs then connect to buckles located closest to each hip.
Adjust each leg strap to fit snug but not tight. To check, insert hands between leg straps and legs. If you can make a fist, the straps need to be tightened. Proper fit is when your hand fits flat.



STEP 4
Connect chest strap buckles and adjust to keep shoulder straps taut.
Adjusted chest strap should be positioned and centered between pectoral muscle/mid-chest area.



STEP 5
Buckle the waist belt and secure the loose end in the belt retaining keeper provided.



STEP 6
While standing up straight, adjust torso straps to your height and to remove slack.
Secure the loose ends of the adjusted torso straps in the retaining keepers.



Confirm the proper adjustment and fit for:

- Dorsal D-ring centered, between shoulder blades.
- Chest strap fastened between pectoral muscles.
- Sub-pelvic strap positioned properly under seat.
- All excess web straps secured in retaining keepers.



SOME ASPECTS OF PROPERLY DONNING A HARNESS MAY REQUIRE ASSISTANCE FROM ANOTHER PERSON.

FALLTECH® RECOMMENDS A BUDDY CHECK FOR CORRECT FIT AND ADJUSTMENT BEFORE BEGINNING WORK.

Rescue Plan:

- Identify emergencies that could affect your work site.
- Establish a chain of command.
- Document procedures for responding to emergencies and make sure they're available at the site.
- Identify critical resources and rescue equipment.
- Train on-site responders.
- Identify off-site responders and inform them about any conditions at the site that may hinder a rescue effort.
- Make sure responders have quick access to rescue and retrieval equipment, such as lifts and ladders.
- The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.”
- Every job site must have a rescue plan.
- If the employer relies on emergency services, they must ensure that:
 - They can arrive quickly.
 - They are trained and have the equipment to perform rescue.
 - Simply calling 911 is not an acceptable rescue plan

Company Name Job Site Rescue Plan	
Site Name or Location: Site Name or Location	
Date Plan In Effect:	
Date Plan Expires:	
Site Supervisor: Name of Senior Person on Site	
This site will use the following method for employee rescue from a fall: (Select One)	
<input type="checkbox"/> Rescue Provided By Emergency Services	
Emergency Service Contact Number: 911 or Number of Local Rescue Contact	
Emergency Service Hours of Operations: 24/7 or Hours of Operation	
Special Instructions to Emergency Services: Enter any special instructions that Emergency Services should know	
<input type="checkbox"/> Rescue Provided By Employees	
The Senior Authorized Rescuer on site is: Name of Senior Authorized Rescuer	
Rescue equipment is stored at: Location	
The following people are Authorized Rescuers for this location:	
Name of Authorized Rescuer	Date of Last Training

Suspension Trauma:

We all have different limits for the shock load (on arrest) and different capacity to hang in a harness waiting for rescue. It is impossible to regulate these limitations.

Suspension trauma is caused when blood collects in the legs as a result of prolonged suspension.

Suspension trauma can cause unconsciousness and even death.

Symptoms include:

Faintness

Nausea

Dizziness

Graying or loss of vision

Unconsciousness




Important Standards

§ 56.11012 Protection for openings around travelways. Openings above, below, or near travelways through which persons or materials may fall shall be protected by railings, barriers, or covers. Where it is impractical to install such protective devices, adequate warning signals shall be installed.

§ 56.15005 Safety belts and lines. Safety belts and lines shall be worn when persons work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.

MSHA standards at 30 C.F.R. §§ 56/57.15005 require that safety belts and lines be worn when persons work where there is danger of falling; a second person must tend the lifeline when bins, tanks or other dangerous areas are entered. The Occupational Safety and Health Administration's (OSHA's) fall protection standard at 29 C.F.R. §1926.501(b)(1), Unprotected sides and edges, states that "Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems." In many cases, compliance with OSHA's fall protection standard will satisfy the requirements of MSHA's 30 C.F.R. §§ 56/57.15005 standard. MSHA will evaluate all work area hazards to ensure appropriate fall protection provisions are in place to protect miners from fall hazards.

MSHA lists best practices for preventing fatal falls:

- Design work areas and develop job tasks to reduce fall hazards.
 - Establish an effective fall prevention and protection program and provide task- and site-specific hazard training.
 - Supply a fall protection harness and lanyard to each employee who might work at height or at a location unprotected by handrails.
 - Provide identifiable, secure anchor points to attach lanyards.
 - Enforce fall protection equipment use – as well as safe work-at-height policies and procedures – with employees.
 - Supply mobile or stationary platforms or scaffolding for projects that have fall hazards.
 - Provide safe truck tarping and bulk truck hatch access facilities.
- 



Any Questions?



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