

TOOLBOX TALKS

Fall Toolbox Talk # 1

How do we prevent falls from aerial lifts?

Ask the following questions and give time for answers.

What are the hazards? Falls due to work with aerial lifts

What are the results? Broken bones, internal damage, death

What should we look for? Equipment damaged or used other than intended, untrained operators, lack of fall protection, overloaded equipment, workers standing on guardrails, ladders on the platform, un-level or unstable surface, or improper driving

Actual Incident:

Teterboro, NJ, October 2016: An employee was laying down new metal decking sheets on the roof. The employee was fastening the sheets using a screw gun. The employee was using an articulating boom aerial lift as a means of access to the roof. The employee slipped and fell 45 feet to the ground while attempting to get into the lift. The employee was killed.

What to Do While Operating an Aerial Lift

Fall Protection:

- * Ensure that access gates or openings are closed.
- * Stand firmly on the floor of the bucket or lift platform.
- * Do not climb on or lean over guardrails or handrails.
- * Do not use planks, ladders, or other devices as a working position.
- * Use a full-body harness with a lanyard attached to the boom or bucket.
- * Do not belt-off to adjacent structures or poles while in the bucket.

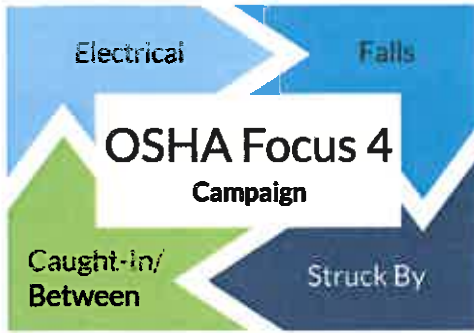


Source: IUOE National Training Fund



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TOOLBOX TALKS

Fall Toolbox Talk # 1

How do we prevent falls from aerial lifts? (continued)

Ask the following questions about lifts used on this site and ensure every item is covered.

Let's talk about this site now.

- * Have you received formal training on the safe operation of aerial lifts?
- * How do you sign up for training? Who conducts the training?
- * Demonstrate how to inspect equipment (move group to equipment for demonstration).
- * Is fall protection available for use with aerial lifts? Do you use a fall arrest or fall restraint system? How do you select the proper equipment?

Record questions below that you want to ask about this site.



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TOOLBOX TALKS

Fall Toolbox Talk # 2

Preventing Falls From Scaffolds



Ask the following questions and give time for answers.

What are the hazards? Falls due to working on scaffolding

What are the results? Broken bones, head injuries, internal damage, death

What should we look for? Uneveled scaffold, improper base, inadequate access, not fully planked, improper use of baker scaffolds, fall protection, power lines, workers on guard rails.

Actual Incident:

Silver Spring, MD, October 2012: An employee was killed after falling more than 90 feet at a building under renovation. The employee was working on the apartment balcony from a twin tower mast-climbing work platform. The employee was scraping the old paint at the 10th floor balcony when he fell to the ground through the space adjacent to the mast tower. At the time of the incident, the deceased was not connected to any fall protection system.

1. Why did this tragedy happen? How could it have been prevented?
2. Have you ever had an injury due to falling from scaffolding, or have you heard of anyone who has fallen from scaffolding? If so, what happened? And what were the contributing factors?

Did You Know: When scaffolds are not constructed or used properly, falls can occur. Protecting workers from scaffold-related incidents would prevent many deaths and more than 4,000 injuries each year.



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TOOLBOX TALKS

Fall Toolbox Talk # 2

Preventing Falls From Scaffolds (continued)

Know who the **Competent Person for Scaffolding** is for your worksite and assure that he/she is performing all required inspections, which includes at least a daily pre-work inspection.

- * Provide an access ladder. Typically, the only end-rails that you are allowed to use for access have square or rectangular openings.
- * Make sure lumber is scaffold-grade when using wooden planking.
- * Install guardrails and toe-boards on all scaffolding 10 or more feet above the ground.
- * Make sure the scaffold is able to support four times the maximum intended load (including the weight of the scaffold). This includes workers, materials, and tools!
- * Make sure the scaffold is level by using screw jacks on base plates and mudsills. Remember, base plates must **ALWAYS** be used, and mudsills must be used when the Competent Person determines that they are necessary to assure an adequate foundation.

Record questions below that you want to ask about this site and share them with the appropriate parties.



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TOOLBOX TALKS

Fall Toolbox Talk # 3

Preventing Falls Through Skylights and Holes

Ask the following questions and give time for answers.

Did you know that a skylight is considered an open hole?

What are the hazards? Falls due to work near skylights and holes in floors or roofs

What are the results? Broken bones, head injuries, internal damage, death

What should we look for? All skylights are considered open floor holes unless they are covered with a cage or another protective system, or rated to stand on.

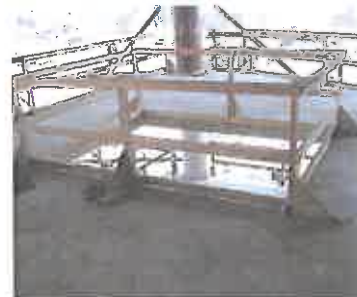
Actual Incident:

Malvern, PA , June 2014: An employee was killed after falling 22 feet through a skylight to the concrete floor. The employee was painting a metal roof deck along with other employees on the roof of a steel building. After painting an interior section of the roof, the employee stepped back onto a skylight and fell through to the lower level. The skylight the employee was working around was not covered or guarded. The employee suffered multiple internal injuries including fractures.

Ask the following question and ensure every item is covered.

How do we prevent these results?

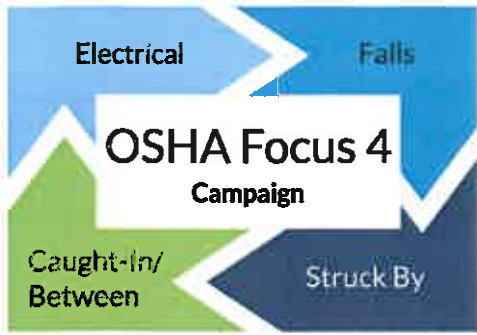
- * Guard or cover all holes with adequate guardrail systems or covers. Label covers (for instance, "HOLE").
- * Use temporary barricades for work or permanent guarding system such as cage around skylights (see photo).
- * Ensure materials used for guardrail systems and covers are of adequate strength, meeting the OSHA standards.
- * Use Fall protection PPE when possible.



Source: IUOE Training Fund

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TOOLBOX TALKS

Fall Toolbox Talk # 3

Preventing Falls Through Skylights and Holes (continued)

Ask the following questions about this site and ensure every item is covered.

Let's talk about this site now

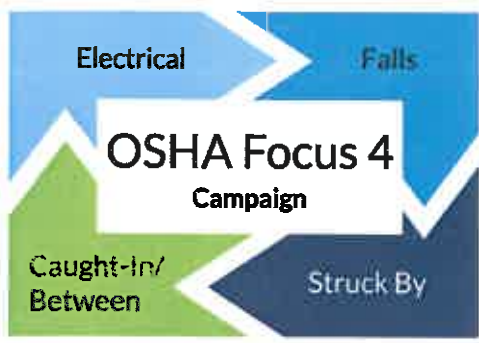
- * What issues can lead to falls through skylights and holes? *Unguarded skylights and holes, placing weight on skylight, no PPE used, etc.*
- * Are there skylights or holes near your work area? Are they guarded or rated to walk on?
- * What makes an adequate guard? *Materials used are of adequate strength, full railing system, cages, etc.*
- * Is fall arrest or restraint systems provided here? Are you trained to use it?
- * If you are going to use fall arrest or restraint systems, what will be the anchor point?

Record questions below that you want to ask about this site and share them with the appropriate parties.



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TOOLBOX TALKS

Fall Toolbox Talk # 4

Preventing Falls from Ladders

Ask the following questions and give time for answers.

What are the hazards? Falls from heights from extension or stepladder use

What are the results? Broken bones, internal damage, death

What should we look for? Improper type, damaged ladder, improper ladder placement, ladder not tied off, ladder not extending 36" above deck, improper climbing procedures, standing on top step of a Stepladder; standing on the first rung of an extension ladder

Actual Incident:

Philadelphia, PA, August 2012: An employee was climbing a 10-foot ladder to access a landing that was 9 feet above the floor. The ladder slid down, and the employee fell to the floor, sustaining fatal injuries. Although the ladder had slip-resistant feet, it was not secured, and the railings did not extend 36" above the landing.



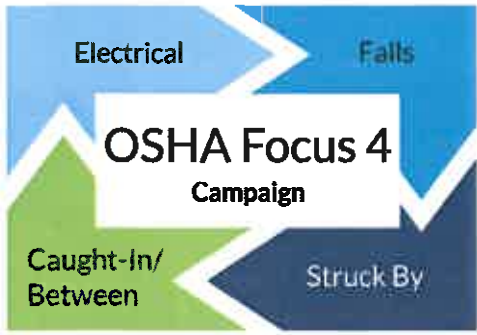
How do we prevent these results or similar incidents?

- * Use the correct ladder type for the job.
- * Properly set the ladder at 1:4 base to height ratio with feet on bottom, extended arms should touch the rung.
- * Set base; tie off the ladder; and extend the ladder 36" above deck or provide grabrails.
- * Do not stand on the top step of a step ladder or fourth rung of an extension ladder.
- * Use proper climbing procedures; always maintain 3 points of contact.
- * Use equipment as it is intended and follow the manufacturer's guidelines.



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TOOLBOX TALKS

Fall Toolbox Talk # 4

Preventing Falls from Ladders (continued)

Ask the following questions about ladders on this site and ensure every item is covered. Use an actual ladder to demonstrate techniques with the workers.

Let's talk about this site now.

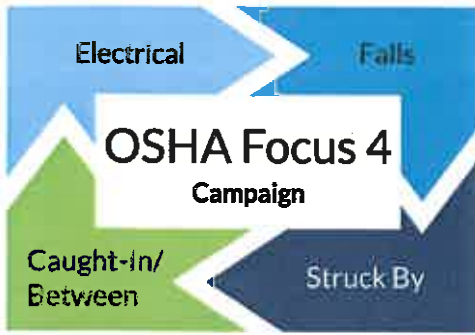
- * How do you properly inspect a ladder before it is used?
- * Find the labeling on the ladder and discuss the manufacturer's recommendations and guidelines.
- * How do you set up an extension ladder?
- * How do you properly use an "A-frame" stepladder?
- * Are there any damaged ladders at this site?
- * What factors increase the risk of falls from ladders?

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TOOLBOX TALKS

Fall Toolbox Talk # 5

Fall Protection Equipment Inspections

Ask the following questions and give time for answers

What are the hazards? Falls from heights due to damaged personal fall arrest systems

What are the results? Broken bones, internal damage, death.

DID YOU KNOW: Among the fatal falls in construction investigated by the National Institute of Occupational Safety & Health's Fatality Assessment and Control Evaluation (FACE) program, between 2004 and 2014, 58.5% of the decedents had no PFAS present; 14.6% had PFAS, but did not use; and another 7.3% used PFAS, but the PFAS failed.

How do we prevent these results?

Inspect your personal fall arrest system prior to use. On a regular basis not to exceed one year (or more frequently if required by manufacturer's instructions) by a Competent Person to verify that the equipment is safe for use. Some manufacturers recommend every 6 months. Your life depends on it.

Take damaged equipment out of service: If there have been alteration; if there is an absence of parts, if there is evidence of defects, damage to or improper function of mechanical devices and connectors. Also look for any other condition that calls to question the suitability of the equipment for its intended purpose.

Know what to look for: Fraying, un-splicing, kinking, knotting, roping, broken or pulled stitches, excessive elongation, chemical exposure, excessive soiling, abrasions, alterations, needed or excessive lubrication, excessive aging, excessive wear.

Personal Fall Arrest Systems are an important element of fall protection; yet the primary goal on construction sites should be to eliminate fall hazards altogether.

Source: MSA Safety Booklet



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TOOLBOX TALKS

Fall Toolbox Talk # 5

Fall Protection Equipment Inspections (continued)



- User Inspection
 1. Webbing
 2. Metal components
 3. Stitching
 4. D-Rings
 5. Labels



**Should be performed daily by user and take 2-3 minutes



- Lanyards
 1. Snap Hooks
 2. Shock absorbers
 3. Adjustment parts
 4. Load Indicators
 5. Labels



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TOOLBOX TALKS

Fall Toolbox Talk # 5

Fall Protection Equipment Inspections (continued)

TECHNACURV INSPECTION Checklist



DESCRIPTION	CODE	OVERALL ASSESSMENT CODE
Webbing		
Cut/Damaged	W1	Fail—Webbing Acceptable
Abused/Heat	W2	
Excessively Worn/Altered	W3	
Stains/Other Damage	W4	
Chemical Exposure	W5	Fail—Webbing Not Acceptable
Other	W6	Fail—Webbing Not Acceptable
Re-Use/No Change	W7	
Stitching		
Cut/Damaged/Heat	S1	Fail—Stitching Acceptable
Abused/Heat	S2	
Excessively Worn/Altered	S3	
Stains/Other Damage	S4	
Chemical Exposure	S5	Fail—Stitching Not Acceptable
Other	S6	Fail—Stitching Not Acceptable
Re-Use/No Change	S7	

DESCRIPTION	CODE	OVERALL ASSESSMENT CODE
Metal Components		
Distorted/Warped	M1	Fail—Metallic Acceptable
Corrosion/Other Pits	M2	
Missing/Loose	M3	
Heat Exposure	M4	
Chemical Exposure	M5	
Burn/Spatter/Edges	M6	
Cracks/Sharp Edges	M7	
Not Functioning	M8	
Other	M9	
Re-Use/No Change	M10	
Plastic Components		
Distorted	P1	Fail—Plastic Acceptable
Heat Exposure	P2	
Excessively Worn/Altered	P3	
Burn/Spatter/Edges	P4	
Chemical Exposure	P5	
Cracks	P6	
Not Functioning	P7	
Other	P8	
Re-Use/No Change	P9	
Re-Use/No Change	P10	

Disposition
Circle "PASS" or "FAIL" or "Disposition" (if on the formal inspection log)

Criteria for Disposition of PAIL:

Passes PAIL if there is one or more Overall Assessment Codes of F (in Webbing, Stitching, Metal, Plastic)



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MSA 2018 Form 1001

Name: _____ Circ No: _____
 Model No: _____ Serial No: _____ Manufacturer Code: _____
 Inspector's Name: _____ Inspection Date: _____ Disposition: PASS FAIL

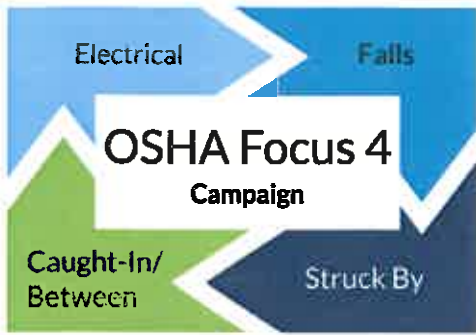
Formal Inspection Log

ITEM POINT	DESCRIPTION	QTY	CONDITION CODE	OVERALL ASSESSMENT CODE	COMMENTS
Fabric Components					
Webbing					
1	Shoulder	2			
2	Shoulder Strap Restraint	1			
3	Shoulder Ring Strap	2			
4	Thigh	2			
5	Leg Strap	1			
Stitching					
1	Shoulder Ring Strap	4			
3	Shoulder Strap Tip	1			
4	Shoulder Strap Restraint	2			
10	Shoulder Strap Restraint	2			
11	Buckle	2			
12	Thigh Strap	2			
13	Thigh Strap Edge	4			
14	Leg Strap Strap	4			
Metal Components					
D-DIMENSIONAL DIMS					
15	Back	1			
16	Hip	2			
17	Draw	1			
18	Shoulder	2			
BUCKLES/ADJUSTERS/CROWNETS					
19	Adjuster, Torso Strap	2			
20	Tongue Buckle	2			
21	Plastic Buckle	2			
22	Quick Fit Buckle	2			
23	Crownets	14			
Plastic Components					
24	Back D-Ring Location	1			
25	Back Collar	4			
26	Labels	5			



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TOOLBOX TALKS

Fall Toolbox Talk # 6

Preventing Falls from Equipment

Ask the following questions and give time for answers.

What are the hazards? Falls from heights, mud, ice, slippery conditions

What are the results? Broken bones, internal damage, death

What should we look for? Improper entry and exit, not wearing safety equipment, riding on loads, not riding in a proper seat, climbing on tractor trailers, or falls during maintenance.

Actual Incident:

Blackwood, NJ, February 2014: An excavator operator was seriously injured after slipping from the platform of the machine and landing on rubble. The worker was descending from the cab via the treads when he fell and sustained a broken ankle and torn knee ligaments. The treads were mud covered and contained traces of ice. In addition, the grabrail on the cab was not present.

How do we prevent these results and similar incidents on other types of equipment?

- * Do not jump from equipment.
- * Use three points of contact when ascending or descending equipment.
- * Keep steps, rungs, and treads clear of ice, mud, etc.
- * Wear your seat belt or other fall protection devices where applicable.
- * Do not ride loads or buckets.
- * Use equipment as it is intended and in accordance with the manufacturer's recommendations.



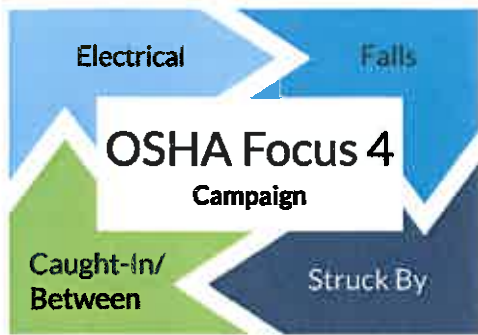
Record questions below that you want to ask about this site.

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TOOLBOX TALKS

Fall Toolbox Talk # 7

General Protection and Awareness

Falls are the leading cause of injuries at work sites. Falls can occur from ladders, scaffolding, vehicles, heavy equipment, aerial lifts, openings, platforms, and roofs. Between 2011 and 2015, **the annual number of fall fatalities in construction increased by 36%**, exceeding the growth in employment and total fatalities in this industry. More than half (55%) of fall fatalities in construction occurred at a height of 20 feet or less. Falls from roofs comprised one-third of fall deaths, followed by falls from ladders (24%).

Actual Incident:

Philadelphia, PA, November 2017: An employee performing carpentry activities was fatally injured after falling down an unprotected elevator shaftway. The employee was clearing debris on the 5th floor of the structure when he backed into the open shaftway. The shaftway opening was not protected or guarded in any manner. The employee fell approximately 60 feet to his death. The employee was working at the site for less than three weeks.

- * **What could have been done to prevent the fatality?**
- * **What safety precautions should the individual have taken?**
- * **What precautions should the company have taken?**

What you need to know:

Guardrails, Personal Fall Arrest Systems or Safety Net Systems are required on work surfaces when employees are exposed to falls of over 6 feet.

Fall Protection must be provided for all workers when exposed to falls of over 6 feet, with very limited exceptions.

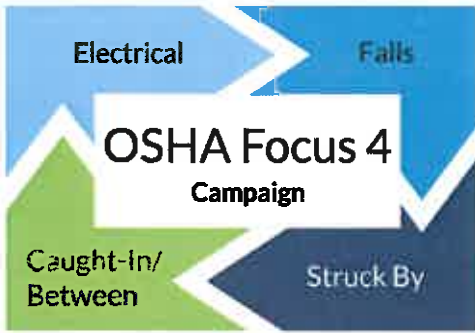
- * Guardrails must be 42" in height, a mid-rail is required as well as toe-boards . When a guardrail system is utilized for Fall Protection it must, at a minimum, be comprised of a top rail, mid-rail, and toe-board.
- * Personal Fall Protection Systems must, at a minimum, consist of a Body Harness, Lanyard, and an Anchor Point that is capable of supporting at least 5,000 pounds per employee.

As per OSHA regulations, all workers must be properly trained on any Fall Protection System that they are expected to utilize. All Fall Protection Systems must at least be compliant with OSHA's CFR 1926.502.



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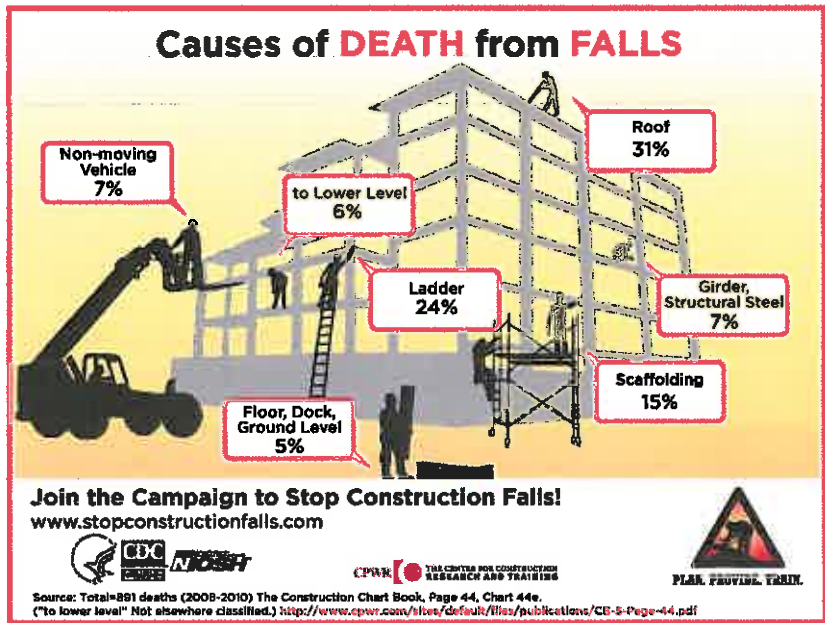




TOOLBOX TALKS

Fall Toolbox Talk # 7

General Protection and Awareness



Source: <http://stopconstructionfalls.com/>



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