



Walking Working Surfaces

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Safety Made Simple, Inc.



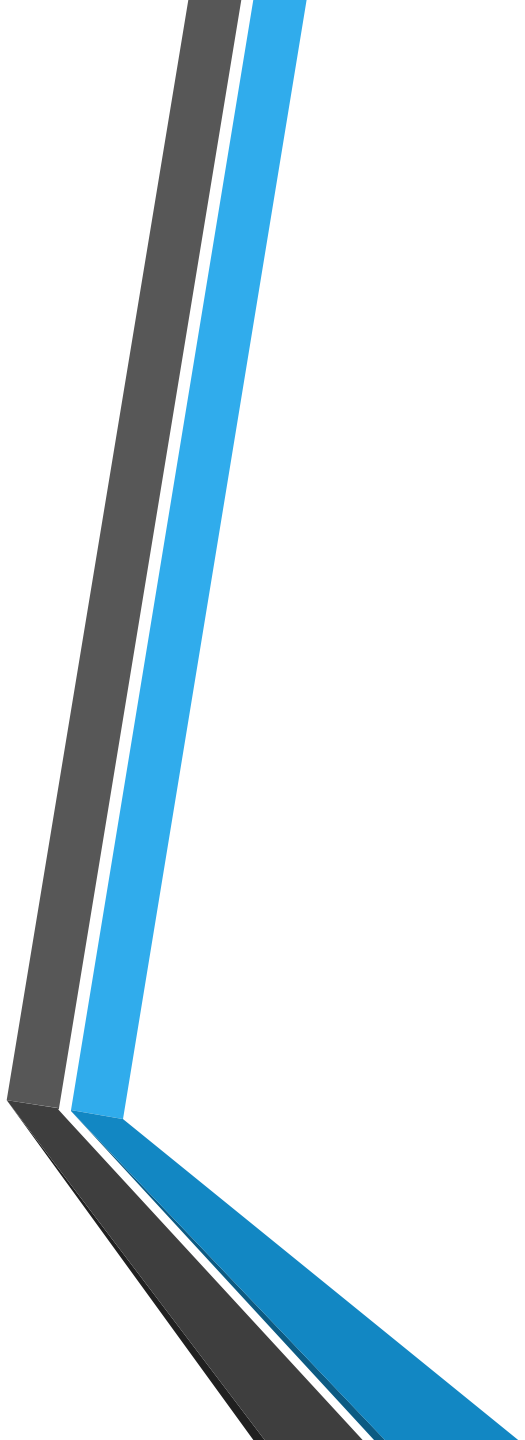
Today's Presentation

- Background on Walking-Working Surface Standard
- Ladders – Portable and Fixed
- Questions and Answers



**KEEP
CALM
AND**

**DON'T SHOOT
THE MESSENGER**



Walking and Working Surface Standard (Subpart D)

- 26 years in the making
 - 1990 - Notice of Proposed Rulemaking
 - November 18, 2016 – Final Rule Published in Federal Register
 - January 17, 2017 – Effective Date
- Regulatory text is over 25 pages, 513 pages in federal register
- The updates reflect technology advances in fall protection since the original rule

Timeline (Past)

- May 17, 2017 – Train workers on fall hazards
- May 17, 2017 – Train workers who use equipment covered in the final rule
- November 20, 2017 – Inspect permanent anchorages for rope decent systems

Timeline

- November 19, 2018 – Ensure existing fixed ladders over 24 feet are equipped with a cage, well, personal fall arrest system, or ladder safety system.
- November 19, 2018 – Installing personal fall arrest or ladder safety systems on new fixed ladders over 24 feet and on replacement ladders/ladder sections.
- November 18, 2036 - Replacing cages and wells used as fall protection with ladder safety or personal fall arrest systems on all fixed ladders over 24 feet.

Benefits of the Standard

- Provides consistency with general industry and construction standards
 - i.e. prior to changes fall arrest, restraint, positioning were not referenced in general industry standards
- Provides additional flexibility to deal with fall hazards



Walking and Working Surface Standard

- Final rule promulgated under the previous Administration
- Was developed with input and cooperation of industry
- Overall the rule has the support of industry
- Did not see a lot of legal challenges





OSHA's Goal

- OSHA wants to reduce the amount of injuries and fatalities associated with slips, trips, and falls:
 - Approximately 15% of accidental deaths;
 - Approximately 20% of workplace fatalities; disabling injuries, and lost workdays; and
 - Approximately 200,000 lost workday and disabling injuries per year
- Among one of the most frequently cited standards

Harmony – Regulatory and Consensus Standards

- New rule harmonizes several consensus standards
 - ANSI A14.3-2008 – Fixed Ladders
 - ANSI A1264.1 – Surfaces Floor, wall and roof openings, stairs and guardrails
 - ANSI Z395.1 – Personal Fall Arrest





Organization of the New Standard

- 1910.21 Definitions
- 1910.22 General requirements
- 1910.23 Ladders
- 1910.24 Steps bolts and manhole steps
- 1910.25 Stairways
- 1910.27 Scaffold and rope descent systems
- 1910.28 Duty to have fall protection and falling object protection
- 1910.29 Fall protection systems and falling object protection – criteria and practices
- 1910.30 Training requirements



Ladders (Fixed and Portable)

1910.23

Ladders – 1910.23



- Updates within new standard:
 - Ladders must be capable of supporting the maximum intended load.
 - Ladders must be inspected before initial use during the work shift to identify defects.
 - Any ladder with structural or other defects is immediately tagged “Dangers: Do Not Use” or with similar language and removed from service until repaired.

Ladder Inspections

- Do not need to be documented, however how do you prove that the inspection took place?
 - Compliance officer could ask employees if they inspect ladders prior to use. If they say no, a citation may be issued.
 - Recommend addressing this during training and consider documenting inspections as part of daily JSA process



1910.23 - Ladders

- Ensure ladder rungs, steps, and cleats are parallel, level and uniformly spaced when the ladder is in a position for use.
- Ladder rungs and cleats are spaced not less than 10 inches and not more than 14 inches apart.
- Ladder rungs and cleats must have a minimum clear width of 16 inches
- Metal ladders made with corrosion resistant material or protected against corrosion.
- Ladder surfaces are free of puncture and laceration hazards.

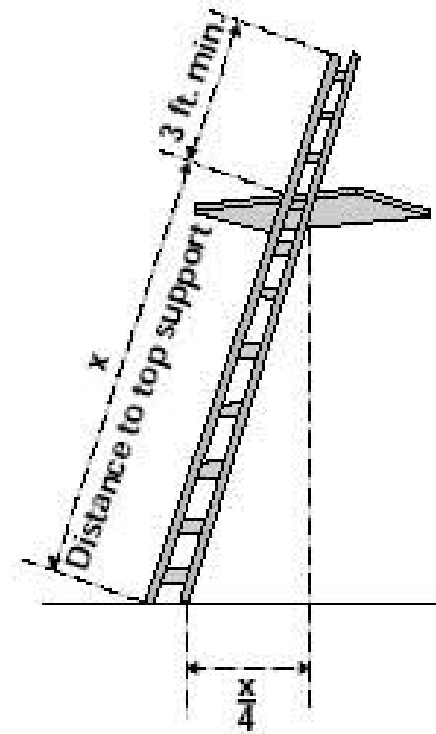
Ladders – 1910.23

- Added language to how ladders will be used:
 - Used for the purpose intended
 - Face the ladder when climbing up and down
 - Use at least one hand to grasp the ladder when climbing up and down



Ladders - 1910.23

- Continued:
 - Extend at least three feet above the landing surface
 - Must not carry any object or load that could cause the employee to lose balance or fall while climbing up or down the ladder.



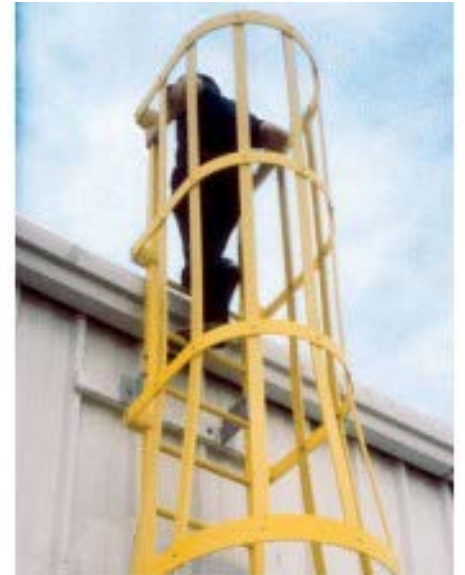
A decorative graphic in the top-left corner of the slide, consisting of two thick, parallel lines forming a right-angled corner. The outer lines are dark grey, and the inner lines are a vibrant blue. The lines are slightly offset from each other, creating a 3D effect.

Fixed Ladders

1910.23

Requirements for Fixed Ladders

- Capable of supporting intended load
- Minimum perpendicular distance from the centerline of rungs to the nearest permanent object in back of the ladder is 7 inches
- The side rails of through or sidestep ladders must extend 42 inches above the top of the access level or landing platform.
- Grab bars extend 42 inches above the access level or landing platform.



Requirements for Fixed Ladders

- When a fixed ladder terminates at a hatch, the hatch cover must open with sufficient clearance to provide easy access to or from the ladder:
 - Hatch must open 70 degrees from horizontal if the hatch is counterbalanced
- Fixed ladders with a pitch greater than 90 degrees are not be used.
- Step across distance from the centerline of rungs or steps for through ladders is not less than 7 inches and not more than 12 inches from the nearest edge or structure, building or equipment accessed from the ladder.
- Step across distance from center line of rungs to or steps for side step ladders is not less than 15 inches and not more than 20 inches of the access points of the platform edge.

Fixed Ladders

- Historically cages and wells were required on fixed ladders of more than 20 feet to a maximum unbroken length of 30 feet.
- Cages were viewed as a form of fall protection
- This is no longer the case!



Fixed Ladder Fall Protection

- Final rule phases in requirements to equip fixed ladders, which extend over 24 feet, with ladder safety or personal fall arrest systems
- The rule prohibits the use of cages as a means of fall protection after the 20 year phase in period (2036)
- OSHA does not believe cages or wells prevent workers from falling from fixed ladders or protect them from injury if a fall occurs

Fixed Ladders

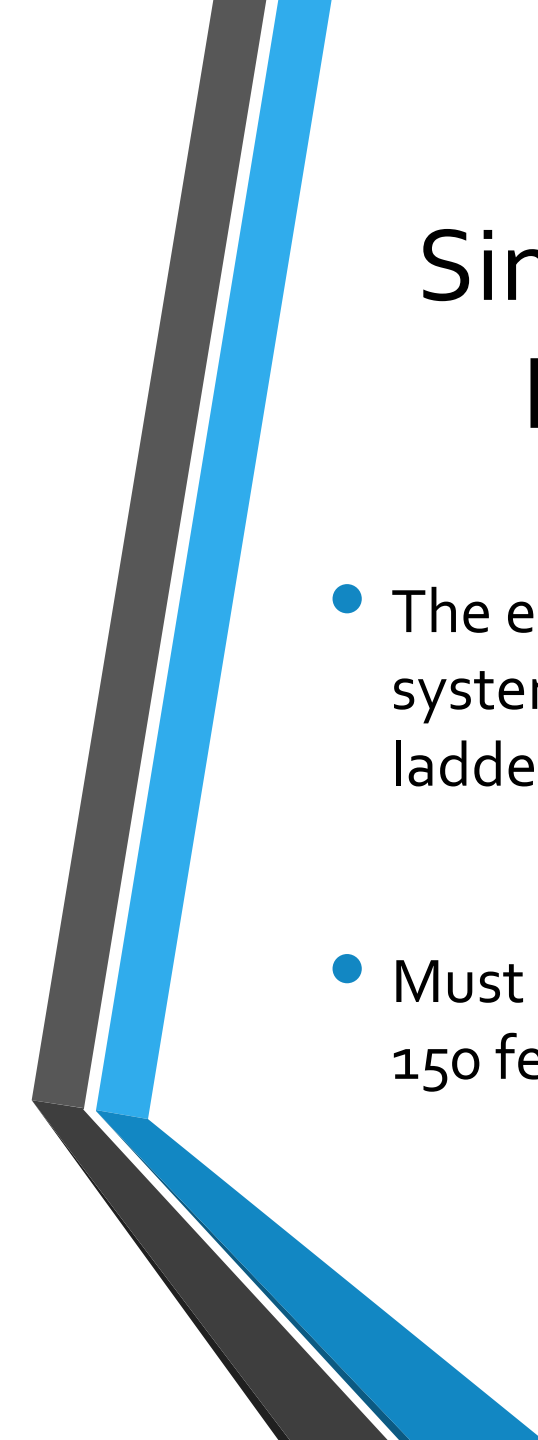
- Ladder safety system
 - Designed to reduce the possibility of falling from a ladder. The system consists of a:
 - Carrier
 - Safety Sleeve
 - Lanyard connector
 - Body Harness
- Personal Fall Arrest System (OSHA)
 - A system an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs



Ladder Safety Systems

- Must allow employee to climb up and down using both hands and not require employee to continuously hold, push or pull any part of the system while climbing.
- Connection between the carrier and lifeline and point of attachment to body harness does not exceed 9 inches.
- Ladder safety systems and their support systems must be capable of withstanding without failure, a drop test consisting of an 18 inch drop of a 500 lb. weight.





Single or Multiple Section Ladders with Fall Protection and Ladder Safety Systems

- The employer must ensure that personal fall arrest systems or ladder safety systems provide protection throughout the entire vertical distance of the ladder, including all ladder sections.
- Must ensure the ladder has rest platforms provided at maximum intervals of 150 feet.



Ladder Sections with Safety Cages or Wells Installed before November 19, 2018

- Ensure ladders are offset from adjacent sections.
- Ensure ladders have landing platforms provided at maximum intervals of 50 feet. Platforms must provide a horizontal surface at least 24 inches by 30 inches.
- 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.

Phase-In Periods for Fixed Ladders

- **Phase 1 – November 19, 2018**
 - Employers must ensure that each fixed ladder over 24 feet in height, installed before this date is equipped with a personal fall arrest system, ladder safety system, cage or well.
 - All newly installed fixed ladders >24 feet and replacement ladders after this date must be equipped with ladder safety or personal fall arrest systems.
 - Cages will no longer be accepted as a means of fall protection after this date.



Phase-In Period for Fixed Ladders

- **Phase II – November 18, 2036**
 - On and after this deadline, all fixed ladders >24 feet in height must be equipped with personal fall arrest or ladder safety systems.



Compliance Suggestions

- Compile an inventory of all fixed ladders
- Assign an identification number/code to each ladder
- Indicate height and type of fall protection system in place (if applicable)
- Develop deadlines for addressing fall protection requirements based on the phase-in periods
- Make sure contractors (design/build) are versed in the new requirements

Emergency Use Ladders

- 1910.23 (a) The employer must ensure that each ladder meets the requirements of this section. This section covers all ladders, except when the ladder is:
 - Used in emergency operations such as firefighting, rescue, and tactical law enforcement operations.
 - Suggested compliance actions:
 - Label emergency use ladders “ Emergency Use Ladders”
 - Ensure ladder sections do not exceed 24 feet in height or equip with a ladder safety device.
 - Train employees – appropriate use of emergency ladders

Ladder Landing Platforms

- In the definition, OSHA added the term walking-working surface and defines it as, “Any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.”
- Related to platforms, under the revised standard, employers are required to:
 - Ensure each employee is protected from falling into a ladderway floor hole or ladderway platform hole by a guardrail system and toeboards erected on all exposed sides, except at the entrance to the hole where a self-closing gate or an offset must be used. OSHA 1910.28(b)(3)(iv).





Training Requirements

- 1910.30
 - Ensure workers who use fall protection and work in high hazard areas are trained about fall protection hazards and equipment and the proper use of fall protection systems.
- The trainer must be a qualified person and is responsible for training employees how to:
 - Identify and minimize fall hazards
 - Use personal fall protection systems
 - Maintain, inspect and store equipment or systems used for fall protection

Training Requirements

- What is the definition of a qualified person?
 - Defined by OSHA: One who, “by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge training, and experience has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project”
- Most likely a safety professional, consultant, vendor, etc.





Additional Resources

- <https://www.osha.gov/walking-working-surfaces>
 - Frequently asked questions
 - Regulatory text
 - Fact sheet
 - Letters of Interpretation
- Conn, Maciel, and Cary LLP – Webinars – Walking Working Surfaces.
 - Recording available at www.connmaciel.com
- NGFA Guidance Document – Walking Working Surfaces
- Keep an eye out for future OSHA compliance directive



Questions/Discussion

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Rolling Stock

- There was pressure from the industry to exempt rolling stock from fall protection requirements
- The rule does not add fall protection requirements for rolling stock
- Preamble: “This final rule does not include any specific requirements for fall protection on rolling stock and motor vehicles.”

Rolling Stock

- Miles Memo still in effect (1996):
- “Additionally, it would not be appropriate to use the personal protection equipment standard, 29 CFR 1910.132(d), to cite exposure to fall hazards from the tops of rolling stock, unless employees are working atop stock that is positioned inside of or contiguous to a building or other structure where the installation of fall protection is feasible. In such cases, fall protection systems often can be and, in fact, are used in many facilities in the industry. ”

Rolling Stock

- Unlikely that rolling stock will be addressed in the short term
- This issue will most likely come up again as new equipment becomes available (i.e. portable fall protection systems)

