

**National Grain  
and Feed Association**

## **Walking Working Surfaces Update**

Jess McCluer

National Grain and Feed Association

May 27, 2021

ASSP Delmarva Chapter



# NGFA Fast Facts

- **More than 1,050-Member Companies:**

- Grain elevators
- Feed, feed ingredient manufacturers
- Oilseed processors
- Flour, corn mills
- Biofuels producers
- Many other related agribusinesses
- 33 State/Regional Associations
- Partnerships with NAEGA, PFI

**Members  
Handle 70%  
of U.S. Grains  
and Oilseeds**

- **NGFA's Mission and Purpose**

- Secure abundant, safe food and feed supply
- Promote free markets



# Walking Working Surfaces

- On November 18, 2016 OSHA issued a new [final rule](#) that updates and revises the general industry Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems) standards on slip, trip, and fall hazards
- Includes revised and new provisions addressing
  - fixed ladders;
  - rope descent systems;
  - fall protection systems and criteria (including personal fall protection systems); and
  - training on fall hazards and fall protection systems
- Adds requirements on the design, performance and use of personal fall protection systems



# Frequency of Slips, Trips and Falls

- Overwhelming majority of general industry accidents stem from slips, trips and falls
- Statistics: Approx. 15% of accidental deaths are from slips, trips, and falls
- Approx. 20% of workplace fatalities disabling injuries and days away injuries in general industry result from slips, trips and falls
- Walking Working Surfaces Standard among most frequently cited standards every year



# Walking-Working Surfaces and Fall Protection Final Rule

---

- Incorporates advances in technology, industry best practices and national consensus standards.
- Updates Subpart D (slips, trips, and fall hazards) + adds requirements for Subpart I (personal fall protection systems)
- Affords greater flexibility to employers in choosing a fall protection system.



# Walking-Working Surfaces and Fall Protection Final Rule

---

- Applies to all general industry workplaces and covers all walking-working surfaces, including:
  - \* Floors
  - \* Stairs
  - \* Roofs
  - \* Elevated Walkways
  - \* Scaffolds
  - \* Ramps
  - \* Ladders



# Effects of New Rule

- Adds consistency b/n General Industry and Construction standards (1926, subparts L, M & X)
- Harmonizes w/ national consensus standards
  - ANSI A1264.1 (surfaces, floor, wall and roof openings / stairs and guardrail systems)
  - ANSI Z359.1 (personal fall arrest systems)
  - ANSI I-14.1 (window cleaning)
- Gives flexibility to use personal fall protection systems (e.g., personal fall arrest, travel restraint, and work positioning systems) in lieu of guardrail systems



# Timeline

Most of the rule became effective January 17, 2017, 60 days after publication in the *Federal Register*, but some provisions have delayed effective dates, including:

- Ensuring exposed workers are trained on fall hazards (May 17, 2017),
- Ensuring workers who use equipment covered by the final rule are trained (May 17, 2017),
- Inspecting and certifying permanent anchorages for rope descent systems (November 20, 2017),
- Installing personal fall arrest or ladder safety systems on new fixed ladders over 24 feet and on replacement ladders/ladder sections, including fixed ladders on outdoor advertising structures (on and after November 19, 2018),
- Ensuring existing fixed ladders over 24 feet, including those on outdoor advertising structures, are equipped with a cage, well, personal fall arrest system, or ladder safety system no later than (November 19, 2018) and,
- Having ladder safety or personal fall arrest systems installed on all fixed ladders over 24 feet by (November 18, 2036).





# More Simple General Requirements

- Housekeeping -1910.22(a)
  - Workplaces must be kept clean, orderly, and sanitary
  - Workroom floors must be clean and as dry as possible
- Load Limit –1910.22(b)
  - Must ensure each walking-working surface can support “maximum intended load” for surface
  - No more requirement for plate indicating max load
- Aisle and Passageways –1910.22(c)
  - Must provide and ensure employees use safe means of access and egress to and from walking-working surfaces
- Inspection Requirement –1910.22(d)
  - Must inspect / maintain walking-working surfaces in safe condition



# Grandfathering In the New Rule

- Unlike most building and other codes, WWS has no consistent grandfathering rule.
- Grandfathering **is** allowed for:
  - Construction of stairs (interpretation letter)
  - Stair rail height (preamble)
  - Fall protection for fixed ladders (until Nov. 2036) (standard)
- Grandfathering **not** allowed for:
  - Guardrail height (preamble)
- Unclear whether grandfathering allowed:
  - Ladders (dimensions)
  - Step bolts



## Notable FAQs

- **Multi-Section Ladder and Fall Arrest/Ladder Safety Systems:**
  - If a multiple section or side-step ladder extends more than 24 feet above ground, the employer must equip the entire ladder with personal fall arrest or ladder safety systems throughout all ladder sections



# Walking Working Surfaces

- On May 24, 2010, OSHA issued a proposed rule on fall protection and requested separate comments on whether specific regulations are needed to address falls from rolling stock and commercial motor vehicles. In the proposal, the agency states that the 1996 Miles Memo "...did not result in clear direction to the public or to OSHA's field staff."



## Walking Working Surfaces (cont.)

- In our comments, we highlighted the effectiveness of the Miles Memo and opposed any additional regulatory burden that would have an operational and economic impact on industry.
- In the final rule, the Agency states that since it did not propose any specific fall protection requirements in the 2010 proposal then it will not include any in this final rule.
- Under the Obama Administration OSHA has completely ignored the 1996 Miles Memo and instead has been citing facilities for not conducting a proper PPE hazard assessment when allowing workers to be on top of rolling stock without fall protection.



## Walking Working Surfaces (cont.)

- In the final rule, OSHA will continue to regulate combustible dust hazards on walking working surfaces. Even though the term “combustible dust” was not included in the final language under section 1910.22(a)(1), the Agency contends in the preamble that they continue to “interpret” combustible dust as a walking working surfaces hazard since excessive accumulation is a slip, trip or fall hazard.



# NGFA Guidance Document for Compliance with OSHA Update to Subpart D Walking -Working Surfaces



**Author: Jim Seibert, Manager, Regulatory Affairs, Education and Training**

**Editors: Jess McCluer, Vice President, Safety and Regulatory Affairs**

**David Fairfield, Senior Vice President, Feed Services**

*Copyright©2018*

By

National Grain and Feed Association

Page 1 / 57

Contacts: [jmccluer@ngfa.org](mailto:jmccluer@ngfa.org) or [jseibert@ngfa.org](mailto:jseibert@ngfa.org)

# Bin Manufacturers – Regional Affiliate Meetings

- Since the introduction of the final rule on 18 NOV 2016, the NGFA has been active within the industry by educating its member of the new requirements within the Walking and Working Surfaces Standard.
- Although some flexibility is built into the new rule, significant changes warranted the production of a guidance document and special focus for the application to the Ag industry.
- Ladders and Rail systems have been a major point of confusion among bin manufacturers, millwrights, and the end users.
- There continues to be updates to the standard and FAQs page.



# Fixed Ladder Fall Protection Change

**Major change** –cages and wells no longer acceptable fall protection on fixed ladders higher than 24’

- Grandfather Provisions and Phase-In of New Provisions for Ladders that extend more than 24’ above a lower level
- Employer must ensure:
  - Fixed ladder installed before 11/19/2018 is equipped w/ personal fall arrest system, ladder safety system, cage, or well;
  - Fixed ladder installed on and after 11/19/2018 is equipped w/ personal fall arrest system or a ladder safety system;
  - When replacing fixed ladder, cage or well (or any portion), personal fall arrest system or ladder safety system is installed; and;
  - On and after 11/18/2036, all fixed ladders that extend more than 24’ to be equipped w/ personal fall arrest system or ladder safety system



# Fixed Ladders Analysis (cont.)

## Replacing Existing Ladders after November 19, 2018

Under the revised standard, when replacing any portion or section of safety cages, wells or fixed ladders that **\*rule of 24'**

- A personal fall arrest system or ladder safety system must be installed in at least that section of the fixed ladder, cage or well where the replacement is located.  
OSHA 1910.28(b)(9)(i)(C)



# Fixed Ladders Analysis (cont.)

## Installing New Fixed Ladders on or After Nov. 19, 2018

Each fixed ladder that

**\*rule of 24'**, must....

- Be equipped with a personal fall arrest system or a ladder safety system.
- Provide protection throughout the entire vertical distance of the ladder including all ladder sections.
- The ladder has rest platforms provided at **maximum intervals of 150 feet**.



# Fixed Ladders Analysis (cont.)

## Ladder Inspections

- Under the revised standard ladders must....

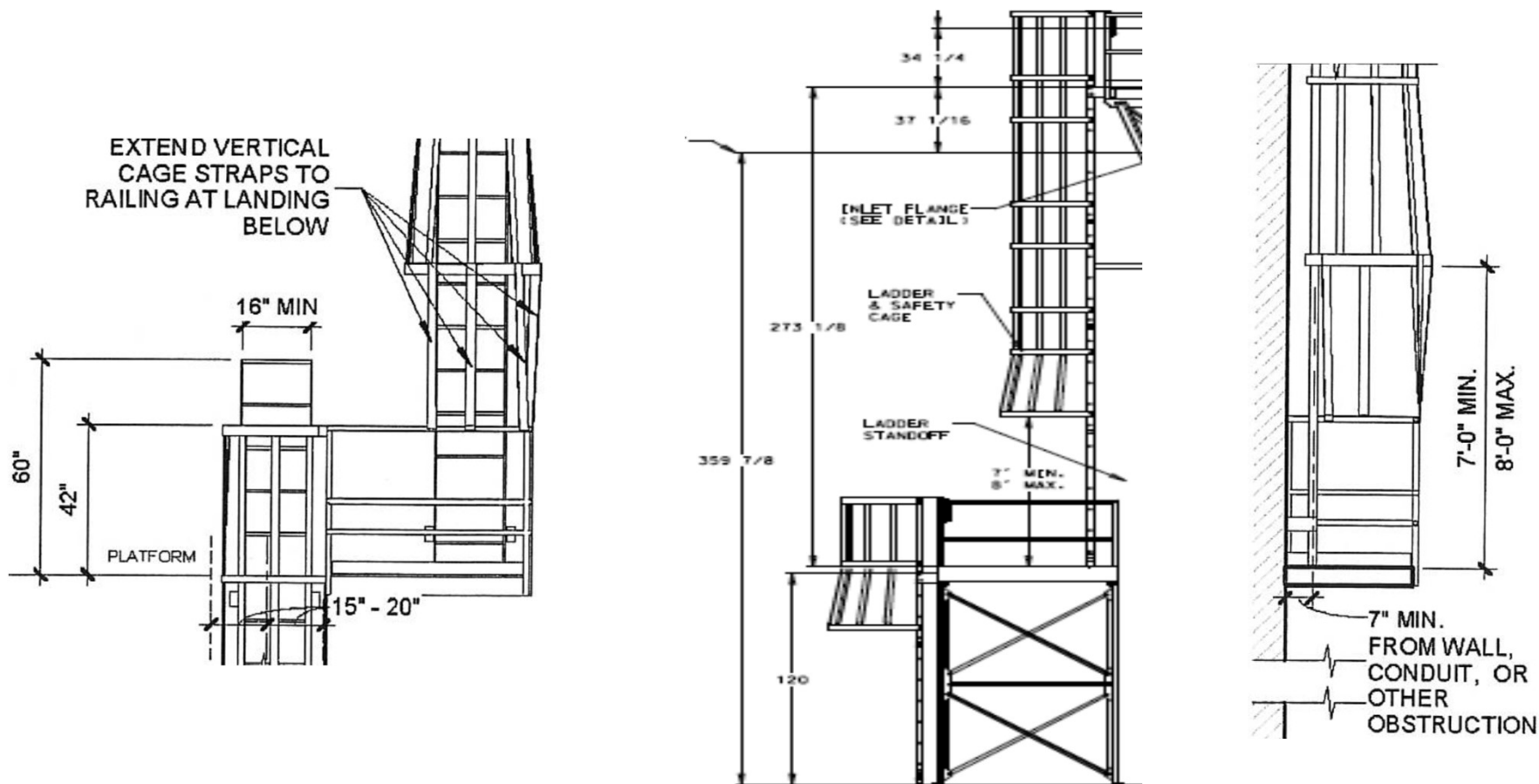
Be inspected before initial use in each work shift and more frequently as necessary to identify any visible defects that could cause employee injury. OSHA 1910.23(b)(9)

## Analysis

- Not quite sure how OSHA will enforce this particular standard, especially for fixed ladders. This standard falls under the section titled General Requirements for **ALL** Ladders. There does not appear to be an exception for fixed ladders and there is nothing specifically mentioned in OSHA standard 1910.23(d) which covers requirements specifically for fixed ladders.
- Regional Directors have encouraged a “common sense approach”



# Project Example



# Fixed Ladder Landing Platforms

- Will need immediate attention. Includes platforms provided to assist employees in transitioning from one offset ladder section to another as well as all other access/egress points from fixed ladders at walkways and other platform areas.
- OSHA added new definitions of a Platform “***...A walking-working surface that is elevated above the surrounding area. Any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.***”
- Employers must....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)



# Fixed Ladder Landing Platforms (cont.)

- The standard does not allow for any delayed or phase-in time period to come into compliance. Therefore, all ladder landing platforms and other ladder access/egress points that expose an employee to a fall of 4 feet or greater to a lower level should be assessed and self-closing swing gates installed.





# Guardrails, Handrails, and Stair Rails

## **Handrails and Stair Rails Systems – 1910.29(f)**

The employer must ensure:

- Handrails are not less than 30 inches and not more than 38 inches, as measured from the leading edge of the stair tread to the top surface of the handrail.
- The height of stair rail systems installed before January 17, 2017 is not less than 30 inches from the leading edge of the stair tread to the top surface of the top rail and;
- The height of stair rail systems installed on or after January 17, 2017 is not less than 42 inches from the leading edge of the stair tread to the top surface of the top rail.
- The top rail of a stair rail system may serve as a handrail only when;
- The height of the stair rail system is not less than 36 inches and not more than 38 inches as measured at the leading edge of the stair tread to the top surface of the top rail and;
- The top rail of the stair rail system meets the other handrail requirements above and were installed before January 17, 2017.
- The minimum clearance between handrails and any other object is 2.25 inches.





# Stair/Hand Rail Combinations

## OSHA Explanation:

- The new standard removes the old upper limit for existing rails (there were some circumstances where an employer was technically in violation because their stair rail was over 34 inches in height).
- The new standard fixes that for existing stair rails. If the rail height is over 38 inches for an existing stair rail, you can't use that rail to double as a handrail (it would have been in violation of the previous standard).
- But anywhere from 30 to 38 inches is permissible for existing stair rails to double as handrails, because 30-34 inches was previously in compliance, and 36-38 inches is permitted by the new standard.



# Stair/Hand Rail Combination (cont.)

## OSHA's Explanation from Area Directors and Regional Administrators.

- Stair rail systems and handrails installed **before** January 17, 2017 that were in compliance with the requirements in the old standard are not affected
- After January 17, 2017:
  - All stair rail systems must be no less than 42" from the leading edge of the stair tread to the top surface of the top rail;
  - Systems installed after January 17, 2017 must also include an **independent hand rail** being not less than 30" and not more than 38"



# OSHA Enforcement of Heights of Handrail and Stair Rail Systems

Heights of Handrail and Stair Rail x +

https://www.osha.gov/laws-regs/standardinterpretations/2019-09-23

UNITED STATES DEPARTMENT OF LABOR

Occupational Safety and Health Administration

CONTACT US FAQ A TO Z INDEX ENGLISH ESPAÑOL

OSHA STANDARD TOPICS HELP AND RESOURCES

Standard Interpretations / Heights of Handrail and Stair Rail Systems

Standard Number: 1910.29(f)(1)(i) ; 1910.29(f)(1)(ii)(B) ; 1910.29(f)(1)(iii)(A)

OSHA requirements are set by statute, standards and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <https://www.osha.gov>.

September 23, 2019

**MEMORANDUM FOR:** REGIONAL ADMINISTRATORS  
STATE PLAN DESIGNEES

**THROUGH:** AMANDA EDENS  
Acting Deputy Assistant Secretary

**FROM:** PATRICK J. KAPUST, Acting Director  
Directorate of Enforcement Programs

**SUBJECT:** Enforcement of 29 CFR 1910.29(f)(1)(ii)(B) and 1910.29(f)(1)(iii)(A): Heights of Handrail and Stair Rail Systems

This memorandum replaces the memorandum issued on June 10, 2019, on this subject, and provides guidance to Compliance Safety and Health Officers for enforcing the handrail and stair rail system requirements at 29 CFR 1910.29(f)(1)(ii)(B) and 1910.29(f)(1)(iii)(A). OSHA has received a number of inquiries about these two OSHA standards since publishing the final Walking-Working Surfaces rule on November 18, 2016.

In accordance with §1910.29(f)(1)(ii)(B), the height of stair rail systems installed on or after January 17, 2017, must not be less than 42 inches (107 cm). Section 1910.29(f)(1)(iii)(A) allows the top rail of a stair rail system to serve as a handrail when the stair rail system is not less than 36 inches (91 cm) and not more than 38 inches (97 cm) in height.

The preamble to the final rule states:

...because the final rule requires that all stair rail systems installed on or after the effective date, which is January 17, 2017, must be at least 42 inches in height, final paragraph (f)(1)(iii)(A) is only applicable to stair rail systems installed before the effective date. (81 FR 82630).

Please note that §1910.29(f)(1)(iii)(A) applies only to stair rail systems installed prior to January 17, 2017.

To clarify the Agency's original intent, OSHA will publish a Federal Register Notice (FRN). In the interim, the following guidance will apply:

**Compliance Guidance**

1. The heights provided in §1910.29(f)(1)(ii)(A), §1910.29(f)(1)(iii)(A), and Figure D-13 apply only to stair rail systems installed before January 17, 2017. For these stair rail systems, the top rail may serve as a handrail, provided the top rail is 36 to 38 inches in height (as measured at the leading edge of the stair tread to the top surface of the top rail) and meets all other handrail requirements in §1910.29(f). See enclosed Figure 1 for an example of a stair rail system installed before January 17, 2017.

2. For stair rail systems installed on or after January 17, 2017, the top rail and handrail must be separate. The top rail must be at least 42 inches in height (§1910.29(f)(1)(ii)(B)) and the handrail must be 30 to 38 inches in height (§1910.29(f)(1)(i)) (as measured at the leading edge of the stair tread to the top surface of the rail). See enclosed Figure 2 for an example of a stair rail system installed after January 17, 2017.

**Enforcement Guidance**

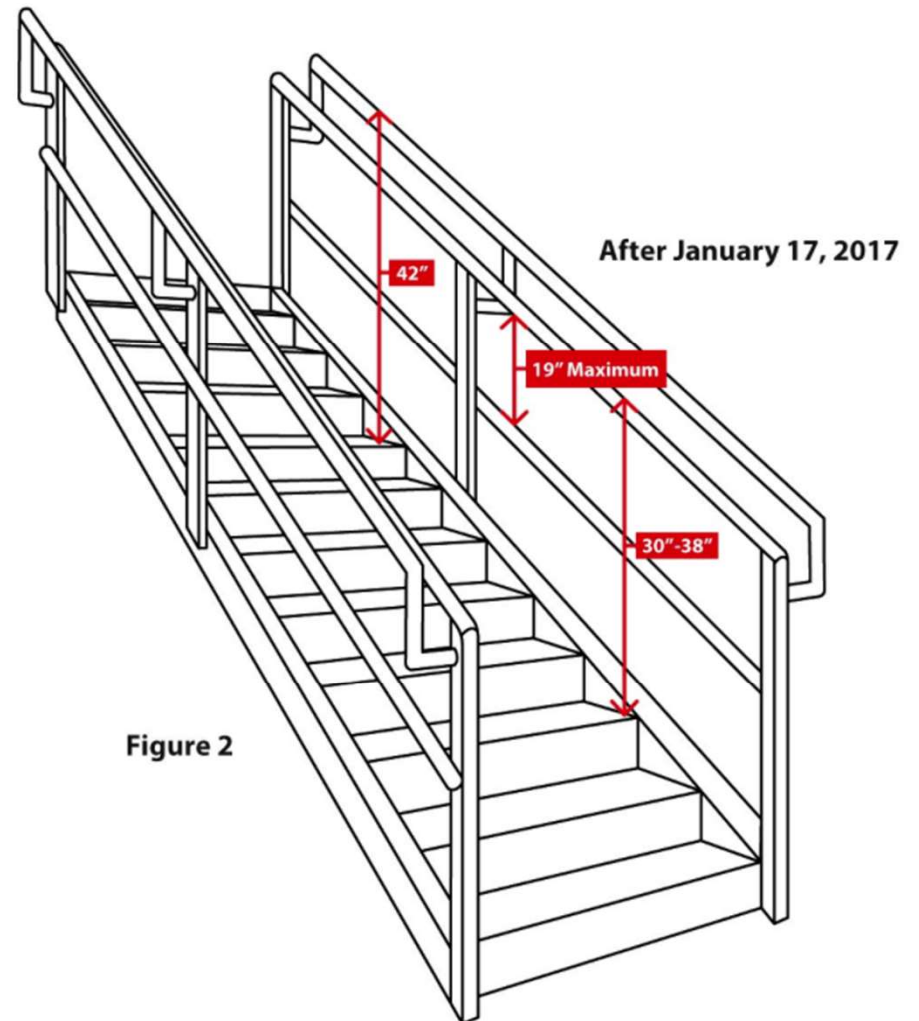
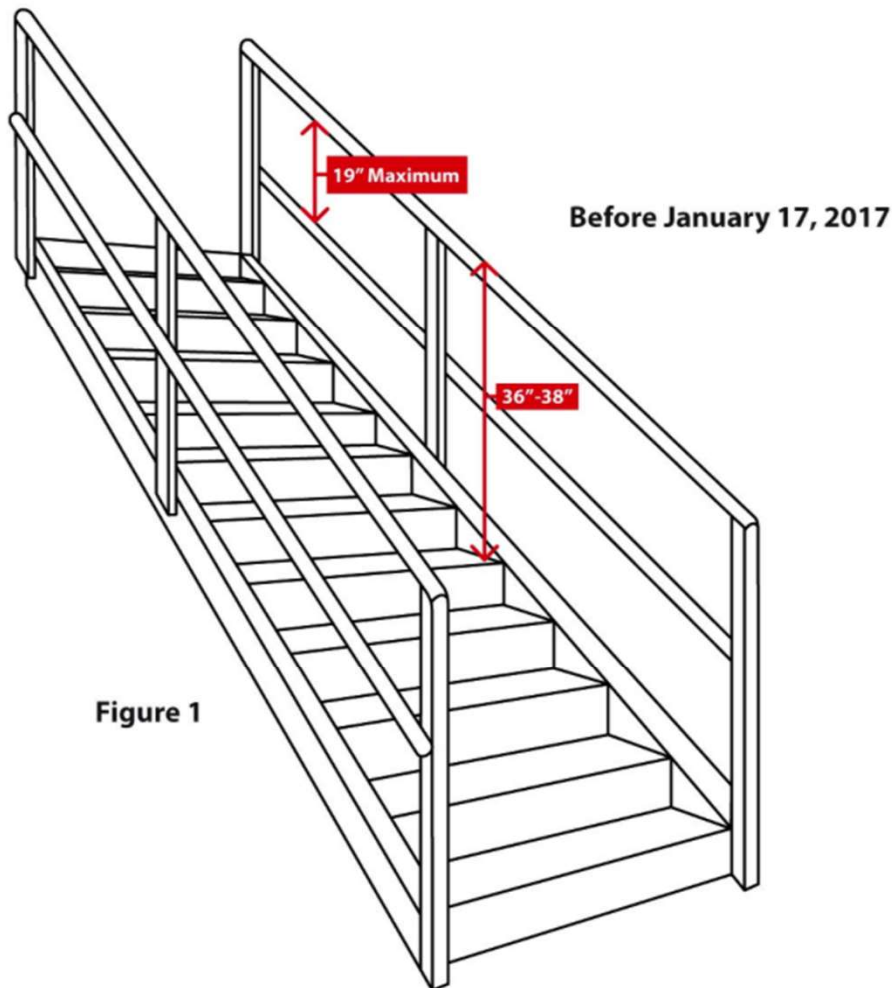
For stair rail systems installed on or after January 17, 2017, that meet §1910.29(f)(1)(iii)(A) instead of §§1910.29(f)(1)(i) and 1910.29(f)(1)(ii)(B), OSHA will not issue citations until the intent of the standards is clarified by a FRN. That is, heights of handrails and top rails of stair rail systems installed prior to any future FRN that meet either Figure 1 or 2 will be deemed compliant and will not need to be retrofitted.

If you have any questions regarding this policy, please contact Sanji Kanth at (202) 693-2135 or [kanth.sanji@dol.gov](mailto:kanth.sanji@dol.gov).

Attachments



# Handrail and Stairwell Systems



# Handrail and Stairwell Systems (Cont.)

- For stair rail systems installed on or after January 17, 2017, that meet §1910.29(f)(1)(iii)(A) instead of §§1910.29(f)(1)(i) and 1910.29(f)(1)(ii)(B), OSHA will not issue citations until the intent of the standards is clarified by a FRN. That is, heights of handrails and top rails of stair rail systems installed prior to any future FRN that meet either Figure 1 or 2 will be deemed compliant and will not need to be retrofitted.



# Handrail and Stairwell Systems (Cont.)

- OSHA is proposing changes to the Walking-Working Surfaces standards to clarify which handrail and stair rail system requirements apply to new stair rail systems. As you know, there has been confusion regarding sections 29 CFR 1910.29(f)(1)(ii)(B) and (f)(1)(iii)(A) that address the heights of handrail and stair rail systems installed either before or after January 17, 2017. The proposed rule is designed to clarify the requirements.
- In the meantime, the agency's [September 13, 2019](#) memo to RA's and State Plan States confirms that OSHA will not issue citations regarding the enforcement of 29 CFR 1910.29(f)(1)(ii)(B) and (f)(1)(iii)(A) until the intent of the standards is clarified by a *Federal Register* notice of proposed rulemaking and subsequently promulgated.



# Update to NGFA Guidance Document



National Grain  
and Feed Association

www.ngfa.org

November 16, 2018

## OSHA's Walking Working Surfaces Standard: Update on Stair/Hand Rails and Ladders

In 2016, the Occupational Safety and Health Administration (OSHA) revised its general industry standards addressing slip, trip and fall hazards found in Subpart D, otherwise known as the Walking Working Surfaces standard. At NGFA's request, OSHA's Directorate of Enforcement Programs (DEP) clarified the rules on: 1) Stair /Hand rails; and 2) Fixed Ladders under 24 feet.

### Stair/Hand Rail Combinations

Current requirements: The top rail of a stair rail system may serve as a handrail only when the height of the stair rail system is not less than 36 inches (91 cm) and not more than 38 inches (97 cm) as measured at the leading edge of the stair tread to the top surface of the top rail.

#### OSHA Explanation:

The new standard removes the old upper limit for existing rails (there were some circumstances where an employer was technically in violation because their stair rail was over 34 inches in height). The new standard fixes that for existing stair rails. If the rail height is over 38 inches for an existing stair rail, you can't use that rail to double as a handrail (it would have been in violation of the previous standard). But anywhere from 30 to 38 inches is permissible for existing stair rails to double as handrails, because 30-34 inches was previously in compliance, and 36-38 inches is permitted by the new standard.

### Fixed Ladders – 24 Feet

Current requirements: For existing and new fixed ladders that extend more than 24 feet (7.3 m) above a lower level, the employer must ensure: 1) each existing fixed ladder installed before Nov. 19, 2018 is equipped with a personal fall arrest system, ladder safety system, cage, or well; and/or; 2) each new fixed ladder installed on and after Nov. 19, 2018, is equipped with a personal fall arrest system or a ladder safety system.

#### OSHA Explanation:

For a ladder that is less than 24 feet, it is feasible for an employer to make the argument that a guarded platform is the lower level. One would have to show that it is not reasonably possible for an employee to fall past the platform. It's likely that the standard minimum size rest platform (24x30 inches) is too small to show that it is not reasonably possible for an employee to fall past the platform. An employer might be able to show that a larger platform would prevent a fall past it. Further, in OSHA's Frequently Asked Questions related to the Walking Working Surfaces standard, the terms "lower level" and "ground" are used interchangeably and should not be taken literally in each context used.

### Background

After OSHA revised its general industry standards addressing slip, trip and fall hazards found in the Walking Working Surfaces standard, the NGFA published a [guidance document](#) designed to provide both an overview of the changes made to the standard and serve as a foundation upon which individual companies can build their own tailored plans specific to their facility, operations, personnel, and other conditions. Sample documents found in the appendices provide templates that may be used to update site-specific programs and procedures.

This one-pager is based on information from OSHA's Directorate of Enforcement Programs (DEP) clarifying rules on stair/hand rails and ladders.

NGFA | 1400 Crystal Drive | Suite 260 | Arlington | VA | 22202



National Grain and Feed Association



## Walking-Working Surfaces and Personal Fall Protection Systems Final Rule

### Frequently Asked Questions

The intent of OSHA's Walking-Working Surfaces standard, 29 CFR Part 1910, Subpart D & I, is to increase the protection of general industry employees and employers from hazards associated with walking-working surfaces. The rulemaking will significantly reduce the number of worker deaths and injuries that occur each year resulting from workplace slip, trip, and fall hazards. The final rule was published on November 18, 2016, and became effective on January 17, 2017. Some requirements in the final rule have compliance dates after the effective date and will be discussed in further detail below. This final rule and the associated preamble, providing more detailed explanation of the rule, is available on the Federal Register website at [81 FR 82494, Walking-Working Surfaces; Personal Protective Equipment; Final Rule, November 18, 2016](#).

OSHA requirements are set by statute, standards, and regulations. The Agency's interpretations explain these requirements and how they apply to particular circumstances, but they do not create additional employer obligations. Note that our enforcement guidance may be affected by legislative or rulemaking changes to OSHA requirements. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <http://www.osha.gov>.

This webpage provides guidance, in a question and answer format, regarding OSHA's Final Rule, Walking-Working Surfaces and Personal Protective Equipment, 29 CFR Part 1910, Subpart D and I. These Frequently Asked Questions (FAQs) are divided into five sections: *general questions*, *rope descent system (RDS) questions*, *outdoor advertising questions*, *residential roof questions*, and *agricultural operation questions*.

## General

What is the purpose of the final rule?

How does the final rule increase worker protection?

What benefits does the final rule provide for employers?

Who and what does the final rule cover?

What are the major changes in the final rule?

When does the final rule become effective?

Will states with OSHA-approved programs adopt the standards?

What resources are available to help small businesses and other employers comply with the standards?

## Rope Descent Systems

What is a rope descent system (RDS)?



# Thank You

National Grain and Feed Association

1400 Crystal Drive

Suite 260

Arlington, VA 22202

Jess McCluer

(202) 289-0873 | [jmccluer@ngfa.org](mailto:jmccluer@ngfa.org)

