

SUBJECT: CLARIFICATION OF STAIRWAY STANDARDS;
1910.23(d), 1910.24, and 1926.1052

Purpose: To define the word "riser" and the phrase "every flight of stairs having four or more risers..." for uniform enforcement of related standards.

To clarify when to cite for lack of stair railings or handrails on a flight of stairs.

To provide guidelines and clarification on the applicability of standards pertaining to stairs and stairway systems.

Scope: This directive applies MNOSHA-wide.

- References:
- 1) 1910.21, Definitions applicable to 1910.23 and 1910.24.
 - 2) 1910.23(d), Stairway railings and guards.
 - 3) 1910.24, Fixed industrial stairs.
 - 4) 1926.1050, Definitions applicable to 1926.1052.
 - 5) 1926.1051, Subpart X – Stairways and Ladders General requirements.
 - 6) 1926.1052, Stairways.
 - 7) ANSI A12.1-1973, Safety Requirements for Floor, and Wall Openings, Railings, and Toeboards [**NOTE:** Replaced by ANSI/ASSE A1264.1-1995 (R2007)]
 - 8) ANSI A64.1-1968, USA Standard Requirements for Fixed Industrial Stairs [**NOTE:** Replaced by ANSI/ASSE A1264.1-1995 (R2007)]
 - 9) ANSI/ASSE A1264.1-2007, Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace, Floor, Wall and Roof Openings; Stairs and Guardrails Systems
 - 10) Federal OSHA Standard Interpretation, Stairways for public use are not covered by OSHA, dated 6/20/1974.
 - 11) Federal OSHA Standard Interpretation, Stairways Used in Construction, dated 10/01/1991.
 - 12) Federal OSHA Standard Interpretation, Clarification of fixed stairs strength; minimum of 1,000 lbs.[1910.24(c)], dated 5/8/2000.
 - 13) Federal OSHA Standard Interpretation, Fixed industrial stair requirements for access to secondary containment structures surrounding bulk chemical storage tanks, dated 12/10/2003.
 - 14) Federal OSHA Standard Interpretation, Top rail and handrail requirements for stairrail systems under the construction standards, dated 10/28/2004.

- 15) Federal OSHA Standard Interpretation, Conditions under which a stair railing can also serve as a handrail, dated 9/14/2005.

Cancellation: This instruction supercedes STD 1-1.2 "Clarification of Stairway Standards", dated 9/27/04.

Action:

A. DEFINITION AND STANDARD CLARIFICATION

1. Risers and Standard Railings

A riser is the vertical member between treads of a stairway. "Riser" and "risers" mean the same thing. A stair (as seen in Appendix A) should be cited if it does not conform to the requirements as stated in the standards referenced above.

For uniform enforcement of the stairway standards, the landing or platform will count as a tread of a stairway. Platforms or landings 4' or more above the floor or ground level shall also meet the applicable requirements for standard railings. For fixed industrial stairs in general industry, where railings and/or handrails do not conform to the 1910.24(h) standard, cite the appropriate 1910.23(d) subparagraph.

2. Public Stairways or Steps

Sections 1910.23 and 24 apply to fixed industrial stairways. Stairways and steps where the primary use is by the public should not be cited unless there is a definite hazard to the employees who occasionally may use the same stairway. These stairways or steps would most likely be found in or outside of public buildings, libraries, restaurants, shopping centers, art institutes, museums, etc.

3. Load

Section 1910.24(c). For clarification purposes, normal live load is spread over the whole stair tread area. The moving concentrated load is considered to be a point applied at a location on the stair system where the maximum stress would be experienced by the system.

NOTE: Sections 1910.23 and 24 do not apply to stairs used for fire exit purposes, to construction operations, to private residences, or to articulated stairs.

B. INSPECTION GUIDELINES AND COMPLIANCE PROCEDURES FOR STAIRWAY STANDARDS

1. Measure tread width.
2. Measure tread depth (run).
3. Measure stair rise.
4. Determine angle of stairway rise (rise to run ratio).
NOTE: An angle locator may aid investigator in determining stair angle.
5. Determine if steps are relatively uniform.
NOTE: If stairs are broken, they may not be uniform.
6. Determine overall fall potential (i.e. number of steps x height of stair rise OR measure from top of stair to bottom of stair if feasible).
NOTE: Where an intermediate landing exists, fall potential measurements should be determined from platform landing to platform landing. If fall potential is measured from top of stair to bottom of stair where an intermediate landing exists, provide documentation as to why the employee could fall past the intermediate landing.
7. Determine if open/unprotected or close sided.
NOTE: If applicable, measure spacings between studs. A gap (as referenced in the definition of "opening" in 1926.500) of 18 inches or more would be considered an open side where there could be potential for an employee to fall to a lower level.
8. Determine employee use (i.e. used for general foot traffic or in process of being constructed, frequency of use, etc.).
9. Document, measure, and photograph any hazards noted and observed.

NOTE: If additional stairway guidelines are found in specific standards (i.e. 1910.28, 1910.29, 1910.179, 1910.261, 1910.265, 1926.26, 1926.451, 1926.651, 1926.851, 5207.0250, etc), use the vertical standard where applicable.

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Distribution: OSHA Compliance and WSC Director
Attachments: Appendix A – Stairway Diagram

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APPENDIX A – Stairway Diagram

