

**OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION
DEPARTMENT OF CONSUMER AND BUSINESS SERVICES**

PROGRAM DIRECTIVE

Program Directive A-21
Issued January 1, 1979
Revised May 29, 2018

SUBJECT: Ladders: Manhole Steps in Manholes

**AFFECTED CODES/
DIRECTIVES:** [Division 2/D, 1910.24, Step Bolts and Manhole Steps](#)
[Division 2/D, 1910.23, Fixed Ladders](#)

PURPOSE: To clarify the applicability of 1910.24(b), Manhole Steps, where employees use manhole steps in walls and conical top sections of manholes.

BACKGROUND: Personnel had previously been using the suggested design in Figure D-2 of repealed rule 437-002-0027(3)(a), Fixed Ladders, in Division 2/D as the overall design criteria for individual fixed rungs (individual-rung ladder) installed in the walls and conical top sections of manholes. On May 16, 2017, Oregon OSHA adopted extensive changes to the Walking-Working Surfaces rules for general industry. These changes became effective on Nov. 1, 2017, replacing the previous Walking-Working Surface regulations in Division 2/D, which included new language addressing manhole steps in all manhole structures.

- A. The American Society for Testing Materials (ASTM) specifications for “Precast Reinforced Concrete Manhole Sections,” C-478, specifies wall thicknesses according to design requirements, thereby approving walls as thin as four inches, which precluded the six-inch embedment previously suggested in Figure 2 of repealed rule 437-002-0027(3)(a). Figure 2 was replaced by Figure D-4 of the current rule, 1910.23(d), Fixed Ladders. The current Figure D-4 does not specify an embedment value for rungs in a fixed individual rung ladder. Additionally, Figure D-4 describes “individual rung ladders” as defined in 1910.21(b). That definition specifically excludes manhole steps. Appurtenances penetrating the manhole walls are forbidden, thus at least three-inch embedment for individual rungs or steps is reasonable.

ACTION:

- A. Compliance officers will enforce Division 2/D, 1910.24(b), Manhole Steps in all instances where employees use manhole steps in manhole structures. When fixed ladders as defined by 1910.21(b) are used instead of manhole steps within a manhole, Compliance Officers will enforce Sections (b) and (d) of Division 2/D, 1910.23 Ladders.

- B. Inspect individual steps used for access or egress, embedded in walls of risers or the conical top sections of manholes. Assure that they are well constructed, and maintained in a safe condition.

- C. Manhole steps installed on or after Jan. 1, 2018 that are not designed to prevent the foot from sliding off the end is a violation of 1910.24(b)(2)(vi). For manhole steps installed before Jan. 1, 2018, that were not designed to prevent the foot from sliding off the end, consider 1910.24(b)(3).

- D. Do not allow the use of manhole steps found to be unsafe due to corrosion. Cite 1910.24(b)(3) if the conditions warrant it.

EFFECTIVE

DATE: This directive is effective immediately and will remain in effect until cancelled or superseded.

History: Issued 1-1-1979 Revised 5-9-2000 and 5-29-2018