

OSHA Directives

STD 1-1.9 - 29 CFR 1910.27, Clarification of Fixed Ladders, Relative to Manhole (Rungs) Steps

- **Record Type:** Instruction
 - **Directive Number:** STD 1-1.9
 - **Standard Number:** 1910.27(b)(1)
 - **Subject:** 29 CFR 1910.27, Clarification of Fixed Ladders, Relative to Manhole (Rungs) Steps
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SUBJECT: 29 CFR 1910.27, Clarification of Fixed Ladders, Relative to Manhole (Rungs) Steps

A. Purpose. This instruction revises OSHA Instruction STD 1-1.2, paragraph 4.b. by including spacing dimensions for individual rungs or steps meeting good engineering practices.

B. Scope. This instruction applies OSHA-wide.

C. Cancellation. OSHA Instruction STD 1-1.2 dated July 3, 1976, Office of Compliance Programming, (previously OSHA Program Directive #100-33), is canceled.

D. Action.

1. The CSHO shall continue to enforce the standard as written for fixed ladders in all instances except for manhole steps in walls or risers or conical top sections of manholes.

2. The CSHO shall assure that individual rungs or steps used for access or egress, embedded in the walls of risers or the conical top sections of manholes shall be safe, well constructed and installed in accordance with good engineering practices. Specifically, individual rungs or steps shall be uniformly spaced from 12 inches to 16 1/2 inches.

a. The CSHO will cite the use of manhole steps in manholes not designed to prevent the foot from sliding off the end as a violation of both the present and proposed standards.

b. The CSHO will cite the use of steps found to be unsafe due to corrosion as a violation of the General Duty Clause, if the conditions warrant it.

E. Federal Program Change. This directive describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.

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2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of the plan change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instruction, and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections, spot check visits, and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

F. Background. Some OSHA personnel have been enforcing the suggested design, Figure D-1, depicted in 29 CFR 1910.27, as the overall design criteria for fixed rungs installed in the walls or risers or conical top sections of manholes. This is in error, since:

1. On December 13, 1971, the Office of Standards Development advised the American Concrete Pipe Association that the language used in 29 CFR 1910.27 does not indicate specifications for manhole steps in conical-shaped sanitary sewer manholes.
2. The American Society for Testing Material (ASTM) specifications for "Precast Reinforced Concrete Manhole Sections," C-478, specifies wall thicknesses according to design requirements, thereby approving walls as thin as 4 inches and precluding the 6-inch embedments as suggested in Figure D-1. Appurtenances penetrating the manhole walls are forbidden, thus the requirements for at least 3-inch embedment for individual steps as specified in the proposed standard are reasonable.
3. The proposed revision of Subpart D, "Walking and Working Surfaces," Federal Register, September 6, 1973, addresses itself to the design specifications

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for fixed embedded steps in walls or risers or in the conical top sections of manholes. The dimensions are entirely different from those depicted in Figure D-1.

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