

Standard Interpretations

10/20/1999 - Trench shields must be installed to prevent lateral movement in a collapse.

[← Standard Interpretations - Table of Contents](#)

• **Standard Number:** [1926.652\(g\)\(1\)\(ii\)](#)

October 20, 1999

Mr. John Randall
Water Utility Safety Coordinator
Water Pollution Control Facilities
7525 Bertram Road SE
Cedar Rapids, Iowa 52403-7111

Re: 1926.652(g)(1)(ii); trench boxes/shield systems for trenches

Dear Mr. Randall:

In your letter to Charles Jeffress, dated September 22, you requested an interpretation concerning Occupational Safety and Health Administration (OSHA) requirements regarding trenches. You state that "a city ordinance provides that only a municipal Water Department employee [is permitted] to tap a potable water main," and that you have a safety policy that requires contractors to use trench boxes to protect Water Department employees irrespective of soil classification. You specifically ask about the maximum distance allowed between a trench shield and the face of the trench wall.

As you know, the State of Iowa administers its own safety and health program under a plan approved and monitored by the Federal Occupational Safety and Health Administration (OSHA). As part of that program, Iowa is responsible for the enforcement and interpretation of occupational safety and health regulations in that State. We have advised them of your request, and you may reach them at:

Byron K. Orton
Iowa Division of Labor Services
1000 E. Grand Avenue
Des Moines, Iowa 50319
Telephone: (515) 281-3447

Federal OSHA regulations governing shield systems for trenches

You ask whether the Federal OSHA standard addresses the issue of how far a trench shield can be from a trench wall. Assuming that cave-in protection were required under 29 CFR 1926 Subpart P (Excavations), and that a shield were used to provide that protection, §1926.652(g)(1)(ii) would require the shield to be "**...installed in a safe manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.**" Therefore, although our standard does not set a maximum distance between a shield box and a trench face, an employer would be required to ensure that, in the event of a collapse of the face, the shield would not move laterally. Trench work is frequently

performed with limited room for maneuver, which means that workers can be injured with just a little movement by a trench shield.

The closer a properly constructed trench shield is to the trench wall, the less chance there is that it could be dislodged by a lateral force. As a practical matter, unless the shield were braced to prevent this type of movement, in most instances an employer would have to keep the shield quite close to the face. The employer's competent person would have to make the determination of whether the shield was close enough to the wall to ensure that there would be no lateral movement.

If you require any further assistance, please do not hesitate to contact us again by writing to:
Directorate of Construction - OSHA, Office of Construction Standards and Compliance
Assistance, Room N3468, 200 Constitution Avenue, N.W., Washington, D.C. 20210

Sincerely,

Russell B. Swanson, Director
Directorate of Construction