
MIOSHA

Michigan Occupational Safety and Health Administration (MIOSHA)
Department of Labor and Economic Opportunity (LEO)

AGENCY INSTRUCTION

DOCUMENT IDENTIFIER:
MIOSHA-STD-21-1

DATE:
December 14, 2021

SUBJECT: Excavation, Trenching and Shoring – Inspection Procedures

- I. Purpose. This instruction establishes policies and procedures for uniform enforcement of the Construction Safety and Health Division Excavation, Trenching and Shoring Standard.
- II. Scope. This instruction applies to the Construction Safety and Health Division (CSHD) and the Consultation Education and Training (CET) Division.
- III. References.
 - A. Agency Instruction MIOSHA-COM-04-1, [Multi-Employer Work Sites](#), as amended.
 - B. Agency Instruction MIOSHA-COM-13-2, [Roadway Work Zones- Inspection and Citation Guidance for Construction and Maintenance](#), as amended.
 - C. Agency Instruction MIOSHA-COM-19-1, [Trenching and Excavation – National Emphasis Program \(NEP\)](#), as amended.
 - D. Agency Instruction MIOSHA-SHMS-12-1, [Safety and Health Management System](#), as amended.
 - E. Construction Safety Standards Part 9. /R408.40901 et seq. [Excavation, Trenching, and Shoring](#).
 - F. Division Instruction CSHD-TRG-09-1, [Training for Construction Safety and Health Division Staff](#), as amended.
 - G. MIOSHA [Field Operations Manual \(FOM\)](#), as amended.
 - H. Occupational Safety and Health Administration, 29 CFR 1926, Subpart P, [Excavations](#).
 - I. Occupational Safety and Health Administration Instruction ADM 04-00-003, May 6, 2020, [Field Safety and Health Manual](#).
 - J. Occupational Safety and Health Administration Instruction CPL-02-00-161, October 1, 2018, [National Emphasis Program on Trenching and Excavation](#).
 - K. Occupational Safety and Health Administration Instruction CPL 02-00-164, April 14, 2020, [Field Operations Manual \(FOM\)](#).
 - L. Occupational Safety and Health Administration Instruction, CPL 02-00-165, July 1, 2021, [Compliance Directive for the Excavation Standard, 29 CFR Subpart P](#).

- IV. Distribution. MIOSHA Staff; Federal OSHA; S-drive Accessible; MIOSHA Messenger; and Internet Accessible.
- V. Next Review Date. To be reviewed in three (3) years from date of issuance.
- VI. Contact. [Lawrence Hidalgo](#), Director CSHD and [Nella Davis-Ray](#), Director CET.
- VII. Originator: Barton G. Pickelman, Director
- VIII. Background. In 1985, OSHA implemented CPL 02-00-069 - Special Emphasis: Trenching and Excavation, in response to the continuing incidence of trench/excavation collapses and accompanying loss of life. According to the Census of Fatal Occupational Injuries (CFOI) data, published by the Bureau of Labor Statistics (BLS), there were 130 fatalities recorded in trenching and excavation operations between 2011 and 2016. The private construction industry accounted for 80%, or 104, of those fatalities. An alarming 49% of those construction fatalities occurred between 2015 and 2016. In light of the recent resurgent number of trenching/excavation fatalities and serious injuries, OSHA determined that these worksites continue to warrant an increased enforcement presence. Occupational Safety and Health Administration Instruction [CPL-02-00-161](#), October 1, 2018, National Emphasis Program on Trenching and Excavation, describes a federal program change which replaces CPL 02-00-069. With this instruction and the Agency Instruction MIOSHA-COM-19-1, [Trenching and Excavation – National Emphasis Program \(NEP\)](#), as amended, MIOSHA establishes enforcement procedures for their trenching and excavation inspections which are at least as effective as the associated federal OSHA compliance directive for the Occupational Safety and Health Administration Instruction, CPL 02-00-165, July 1, 2021, [Compliance Directive for the Excavation Standard, 29 CFR Subpart P](#), and the Occupational Safety and Health Administration Instruction CPL-02-00-161, October 1, 2018, [National Emphasis Program on Trenching and Excavation](#), respectively.
- Federal OSHA issued an updated instruction, CPL 02-00-165, July 1, 2021, [Compliance Directive for the Excavation Standard, 29 CFR Subpart P](#), which provides guidelines for enforcing this standard. The OSHA instruction includes policies and procedures that address inspections of workplaces where excavations are present.
- IX. Action. MIOSHA is adopting the Occupational Safety and Health Administration Instruction, CPL 02-00-165, July 1, 2021, [Compliance Directive for the Excavation Standard, 29 CFR Subpart P](#), except for the modifications listed below:
- A. General Exceptions.
1. Whenever the OSHA instruction references an OSHA occupational safety or health standard, the equivalent MIOSHA standard must be consulted instead. For example, the angle of repose listed in Construction Safety Standards Part 9, [Excavation, Trenching, and Shoring](#), Table 1 as listed in Rule 408.40941(1), must be utilized in

lieu of the angle of repose requirements listed in the equivalent OSHA standard, 29 CFR 1926.652(a).

2. Whenever another OSHA instruction is referenced, the equivalent MIOSHA instruction must be consulted. Below are the MIOSHA specific references that are to be used instead of the OSHA referenced instructions:
 - a) Agency Instruction MIOSHA-COM-04-1, [Multi-Employer Work Sites](#), as amended.
 - b) Agency Instruction MIOSHA-COM-13-2, [Roadway Work Zones- Inspection and Citation Guidance for Construction and Maintenance](#), as amended.
 - c) Agency Instruction MIOSHA-COM-19-1, [Trenching and Excavation – National Emphasis Program \(NEP\)](#), as amended.
3. Whenever procedures/policies in the federal instruction reference the [OSHA Field Operations Manual](#) (CPL 02-00-164), equivalent policies and procedures from the MIOSHA [FOM](#) must be followed.
4. Whenever the OSHA instruction indicates a provision for the safety of the safety officer (SO) at excavation sites, including personal protective equipment provided, the SO is to use the equivalent in the MIOSHA [Safety and Health Management System \(SHMS\)](#).
5. Whenever the OSHA Technical Manual (OTM) TED 01-00-015, Section V, Chapter 2 - [Excavations: Hazard Recognition in Trenching and Shoring](#), is referenced, [Section IX. A](#) and [Section IX. B](#) of this instruction will be followed.

B. Specific Exceptions.

1. MIOSHA will continue to require qualified persons, where OSHA requires competent persons.
 - a) 408.40932. Excavation; consideration of soil types; water; slide hazards.
 - b) 408.40942. Supporting systems; angle of repose; tie backs; tight sheeting; additional bracing.
 - c) 408.40953. Adjacent structures; protection; design; inspection of shoring, bracing, and underpinning.

Note: A Registered Professional Engineer could be considered a qualified person.

2. Equipment Requirements. Equipment requirements listed in paragraph IX. C. of the OSHA Compliance Directive for the Excavation Standard, 29 CFR Subpart P, [CPL-02-00-165](#), will not be required. Inspectors will be provided adequate equipment to properly measure and document citations, which includes:
 - a) Camera and/or video equipment.
 - b) Paper and writing instruments.
 - c) Engineering rod (telescoping rod used for measurements, also called a trench rod/story pole).
 - d) 50 ft., or greater measuring tape.
 - e) Penetrometer.
 - f) Circular bubble level or post level.
 - g) Optical range finder.
 - h) Plumb-Bob
 - i) Velcro loop
 - j) String marked out in one-foot increments
 - k) Other equipment on a case-by-case basis.
3. Soil Samples. SOs will not request employees onsite to enter the excavation to collect soil samples. SOs will use field methods such as the ribbon/worm test and penetrometer test. The soil used to perform these field methods are to be conducted in an area that is safe to access and will not place the SO in an area that may be part of an excavation collapse.
4. Training. SOs are encouraged to take the following four courses, but at a minimum, will attend one of the options listed below:
 - a) MIOSHA Training Institute (MTI) Excavations: The Grave Danger.
 - b) OSHA Coursemill courses.
 - 1) DTE_0145 OSHA Priority: Trenching and Excavation, and
 - 2) DTE_0134 Documenting Trench Inspections (Techniques).
 - c) OSHA Training Institute (OTI) 3010 – Excavation, Trenching and Soil Mechanics.
5. SOs will not be required to document ladder manufacturer name, model, and rung distance unless needed to substantiate a violation of a ladder.