

Case 494. A 39-year-old laborer died in a trench collapse.

A 39-year-old male laborer died in a trench collapse. The decedent had been hired to perform a sewer cap-off in preparation for a building demolition. The decedent had previously performed “handyman” work for the employer, including snow plowing and lawn mowing. The employer paid for the rental of the excavator the decedent used to dig the trench, which was oriented north-south. The trench dimensions were: a) Length: 29-feet, b) Width at base: 7-feet, c) Width at ground level: 6 feet, and d) Depth: 9 feet. The soil composition was a clay/sand mix. The spoil piles were placed at the excavation edges on both sides. The north, east and west walls of the trench were undercut and nearly vertical; the south wall of the trench was sloped at approximately 70°. The excavator had been digging from the south side. The decedent had placed a folded 12-foot stepladder into the trench to provide access. The decedent was hand digging around the sewer line in preparation to cut the pipe, approximately 10 feet from the south edge of the trench just north of the stepladder. The decedent mentioned to the employer, who had just arrived and was standing on the ground at the edge of the trench, that the dirt kept collapsing around him and the pipe. Shortly thereafter, the east, west and north walls of the excavation collapsed on top of the decedent. The employer jumped in the trench and started digging by hand in an attempt to uncover the employee. He was unsuccessful and climbed out of the trench, yelling for someone to call for emergency response. The excavation was not shored or sloped nor was a trench box present on site.

MIOSHA Construction Safety and Health Division issued the following Serious citations at the conclusion of its investigation.

SERIOUS: CS Part 1 General Rules

- Rule 408.40114(1): An employer shall develop, maintain, and coordinate with employees an accident prevention program, a copy of which shall be available at the worksite.

The employer did not have an accident prevention program.

- Rule 408.40132(2): Before beginning a project, provision shall be made for prompt medical attention in case of serious injury.

The employer did not have any provisions in place for what to do in case of an emergency.

SERIOUS: CS Part 9 Excavation, Trenching and Shoring

- Rule 408.40932(4): An ongoing inspection of an excavation or trench shall be made by a qualified person. After every rainstorm or other hazard-producing occurrence, an inspection shall be made by a qualified employee for evidence of possible slide or cave-ins. Where these conditions are found, all work shall cease until additional precautions, such as additional shoring or reducing the slope, have been accomplished.

Instance A) The employer did not have a qualified person to make an ongoing inspection.

Instance B) The employer stated that the sides of the excavation were caving in and the employer did not cease work.

Instance C) The employer did not take additional precautions such as reducing the slope, or installing shoring.

- Rule 408.40933(2): An excavation that an employee is required to enter shall have excavated and other material store and retained not less than 2 feet from the excavation edge.

The employer had excavated material stored within 2 feet of the excavation edge.

- Rule 408.4094(1): The side of an excavation more than 5 feet deep shall be sloped as prescribed in table 1, unless supported as prescribed in this part.

Sides of excavation were not cut to the proper angle of repose; there was no shoring or trench box. It was one excavation, 29 feet long by approximately 9 feet deep. The width at the bottom was approximately 7 feet. The width at the top was approximately 6 feet. The South side of the excavation was at an approximate 70 degree angle. North, East, and West sides of excavation were undercut.

The excavation was on the east side of the building located at *Street Address, City MI Zip Code*. The work operation was a sewer line cap-off. Soil Condition was a clay/sand mix. Penetrometer readings were 0.0 T/SF. All measurements/photos were taken with fire department present. *(MIFACE removed the incident location street address, city and zip code).*