

**Case 257. 58-year-old equipment operator/laborer for an excavating and construction company was crushed when the walls of a trench collapsed while he was installing a sewer line to a home under construction.**

A 58-year-old male equipment operator/laborer for an excavating and construction company was crushed when the walls of a trench collapsed while he was installing a sewer line to a home under construction. The trench was approximately 20-22 feet long, 8½-feet deep and approximately 3½-feet wide at the location where the decedent was working. The decedent was a member of a three-person crew. Coworker 1 used a backhoe to expose the utilities and dug for depth in the excavation on the North side. The decedent and Coworker 2 hand dug to locate sewer tap located seven to eight feet deep. The decedent entered the excavation and installed a 10-foot-long, 4-inch sewer pipe into the tap. The West and North excavation walls were approximately 80 degrees, and the South side was open to the basement of a home under construction. The soil was dry, light brown clay with sand and stones mixed in for the first 5 to 6 feet and then there was a vein of fine brown sand that contained many small stones that was approximately 12 inches thick. The decedent hand dug under the footing on both the inside and outside of the North wall of the basement to create a chase for the sewer pipe. The 10-foot-long sewer pipe extended approximately two feet into the basement. Coworker 1 was standing on west side of trench near the garage wall when he noted the east wall of the trench collapsing and yelled a warning to the decedent to quickly get out of the trench. The decedent attempted to run toward the ladder on the south end of the trench, but was engulfed by the falling soil. The home owner was nearby and jumped into the trench and helped the coworker try to dig him out. Additional contractors heard the warning and ran to the site; they also entered the trench. They removed approximately one foot of soil to reach the decedent's head, and then continued to dig around the decedent until emergency response arrived. When emergency response arrived all the individuals in the trench were ordered to get out of the trench. The emergency responder entered the trench and noted no vital signs. Emergency responders placed temporary walls to support the trench, and then recovered the decedent.

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

**SERIOUS: GENERAL RULES, PART 1, Rule 114(1)**

An accident prevention program was not developed, maintained, and coordinated with employees.

Company accident prevention program has not been fully coordinated with employees. Employee who has been working in an excavation has been exposed to conditions that are referred to in program as unacceptable. Operator that created these conditions was not following company APP in regard to properly excavating.

SERIOUS: PERSONAL PROTECTIVE EQUIPMENT, PART 6, RULE 622(1)

A helmet, as prescribed in R408.40621, was not used to protect the employee where a hazard or risk of injury exists from falling or flying objects or particles or from other harmful contacts or exposures.

Employee who is installing a sewer line in an excavation is exposed to possible head injuries from falling stones and chunks of clay.

SERIOUS: EXCAVATION, TRENCHING, AND SHORING, PART 9

- RULE 932(5)

An ongoing inspection of an excavation or trench was not made by a qualified person.

Employees who are working in an excavation that is approximately 8-feet 6-inches deep are exposed to a wall collapse as no ongoing inspection by a qualified person is being performed. The conditions of the excavation that employees are working in is not consistent with that of a properly trained qualified person based on the requirements of the standard. Employees are installing a sewer line in an excavation that is approximately 20-22 feet long.

- RULE 941(1)

The side of an excavation more than 5-feet deep was not sloped as prescribed in Table 1, unless supported as prescribed in this part.

Employees, who are installing a 10-foot long, 4-inch sewer line, are in an excavation that is approximately 8-feet 6-inches deep, approximately 3-feet 6-inches wide at the far North end, and approximately 20-22 feet long. The West side is at approximately 80 degrees. The North side at approximately 80 degrees, the South side is open to the basement wall, and the East side collapsed. Soil is dry light brown clay with sand and stones mixed in for the first 5-6 feet, then there is a vein of fine brown sand that contains many small stones that is approximately 12-inches thick.