

OSHA

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Training and Education Material

FY 2018

***Developing Excavation/Trenching Training
Materials for Water and Utility Operators and
Construction Laborers***

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Source:

[Press Release-Commissioner's Office](#)

Alaska Department of Labor & Workforce Development
Division of Labor & Safety Standards
Occupational Safety & Health
Location: Anchorage Alaska

Summary: On June 16, 2015, 23 year old employee for Hartman Construction and Equipment, Inc. died while working in a trench at an Anchorage worksite near 91st street and King Street. He was buried up to waist following a trench cave-in. He eventually succumbed to his injuries as he was being dug out using heavy equipment.

Description of Accident: AKOSH investigators arrived on scene and found numerous violations of trenching and excavation standards. The trench had no benching, shoring, or sloping to prevent a dangerous cave-in. Evidence showed that the employer was aware of the possibility of a trench collapse, yet chose to continue work without taking preventative measures. AKOSH issued eight citations, which were appealed by Hartman Construction and Equipment, Inc.

The Occupational Safety and Health Review Board reviewed the facts of the case and upheld five willful violations. Willful violations involve plain indifference or conscious disregard for employee safety, and carry a penalty of up to \$70,000 for each violation. The board determined that Hartman Construction and Equipment, Inc. disregarded clear OSHA requirements for trenches and excavations.

The board also determined that the use of an excavator to extricate Mr. Morgan from the trench collapse was inherently dangerous, and could possibly have contributed to the young man's death. Though no specific OSHA standard addresses the practice, Hartman Construction was found to be in violation of the law requiring employers to provide their employees with a workplace free from recognized hazards that are likely to cause death or serious physical harm. Hartman Construction and Equipment, Inc. has filed a notice of appeal in Superior Court.

Learning objectives:

- a. By the time the trainee completes the training, he or she should be able to understand how unsafe working conditions might lead to trench injuries or fatalities similar to the Anchorage incident. "Each employer -- shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees" ["OSH ACT-KNOW YOUR RIGHTS"](#)
- b. "Trenching and excavation work presents serious hazards to all workers involved. Cave-ins pose the greatest risk and are more likely than some other excavation-related incidents to result in worker fatalities. One cubic yard of soil can weigh as much as a car. An unprotected trench can be an early

grave. Employers must ensure that workers enter trenches only after adequate protections are in place to address cave-in hazards. Other potential hazards associated with trenching work include falling loads, hazardous atmospheres, and hazards from mobile equipment”. [“Trenching and Excavation Safety”](#)

Questions:

1. What unsafe actions were contributing factors in this trench fatality?

Choose all that apply:

- a. A competent person may not have been present to identify, evaluate and communicate the hazards so that preventative measures were in place to protect workers.
- b. The trench did not have adequate sloping, shielding or shoring
- c. Heavy equipment may have contributed to the fatality
- d. The employer was aware the hazards but failed to take preventative measures.

2. What actions could be taken in order to avoid the cave-in incident?

Choose all that apply:

- a. A preplanned jobsite safety briefing with a competent person who can properly identify, evaluate and communicate the hazards before conducting worksite trench activities.
- b. The employer who understands the OSH Act and knows how to protect his employees from work hazards.
- c. Using proper sloping, shielding and shoring techniques for type C soil.
- d. Ensuring ladders are staged every 25 feet of lateral traveling distance.
- e. All jobsite employees including the competent person should continue to identify, evaluate and communicate hazards so that proper preventative measures are in place to avoid potential injuries or fatalities.

Exercise:

The class trainees will be divided into groups to participate for this exercise. The groups are expected to communicate with one another to complete the task related to each photo illustration. During your observations first identify and list the hazards. Once more, if you can list several trench hazards then ask yourself a question of whether or not you would be willing to enter that trench based upon what you see and learned in the training.

Fissure identified by Compliance Officer. Entire area around fissure collapsed into trench within minutes of initiating the inspection.



Identify and list all the hazards in these photos:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____



Identify which protective systems and equipment you use at your current jobsite:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____



What are the recommended best practices when a trench is left open over-night:

1. _____
2. _____
3. _____
4. _____
5. _____

Summary: Employers has a responsibility to share the details of their safety and health programs with workers, they should emphasize the critical role workers play in keeping the jobsite safe. Employers also need to emphasize specific practices that will help reduce the risk of on-the-job injuries at excavation sites. Please refer to OSHA [\(29 CFR 1926 Sup P\)](#)