MNM Fatal 2013-21

- Falling/Sliding Material
- December 13, 2013 (Georgia)
- Industrial Sand Mine
- Water Cannon Operator
- 53 years old
- 19 years of experience

Overview

The victim was killed when the bank of a trench collapsed engulfing him in the falling material. He walked near the edge of a trench, 27 feet in depth, to observe an excavator working below.

The accident occurred because the hydraulic mining system used at the mine did not maintain the wall and bank stability in places where persons work or travel while performing their assigned tasks. The ground conditions that created the hazard to persons was not taken down or supported before other work or travel was permitted in the affected area. The area was not posted with a warning against entry and/or a barrier was not installed to impede unauthorized entry.

Management had not designated anyone at the mine to conduct examinations of ground conditions in the pit area. Miners worked and traveled throughout the pit area and near banks of the trench and the ground conditions changed daily.

Additionally, the victim was assigned to perform a task in which he had no previous experience. He was not trained in the health and safety aspects and safe work procedures specific to that new task before he began performing work.

Root Causes

Root Cause: Management failed to ensure that the hydraulic mining system used maintained the wall and bank stability in places where persons work or travel in performing their assigned tasks. The ground conditions that created the hazard to persons were not taken down or supported before other work or travel was permitted in the affected area. The area was not posted with a warning against entry and/or a barrier was not installed to impede unauthorized entry. Management had not designated anyone at the mine to conduct examinations of ground conditions in the pit area. Miners worked and traveled throughout the pit area and near banks of the trench and the ground conditions changed daily.

Corrective Action: Management established a new mining method that eliminates the use of deep trenches. Persons experienced in examining and testing for loose ground have been designated to conduct examinations at the pit.

Root Cause: Management failed to ensure that miners were trained regarding the changes that occurred regarding their tasks in the pit when a new mining system was established. Barnes was not trained to recognize the unstable, hazardous ground condition and was killed when he was exposed to the hazard.

Corrective Action: Management established a new mining method that eliminates the use of deep trenches. All miners were task trained regarding the health and safety aspects of the new mining method.

Best Practices

- Establish and discuss safe work procedures before beginning work. Identify and control all hazards associated with the work to be performed and the methods to properly protect persons.
- Task train all persons to recognize all potential hazardous conditions that can decrease bank or slope stability and ensure they understand safe job procedures for elimination of the hazards. Evaluate all pit, highwall, slope, and bank conditions daily. Be especially vigilant for these conditions after each rain, freeze, or thaw.
- Slope trenches back at a stable angle or install shoring when working in and around trenches.
- Correct hazardous conditions by working from a safe location.