
MSHA Close Call Accident Alert

The Mine Safety and Health Administration (MSHA) publishes incident reports from mine sites throughout the United States. These reports are aimed at increasing awareness of mine-site hazards as well as outlining best safety practices. Following are two recent incidents showcasing common potential hazards on surface mine sites such as gravel pits.

Dirt Dump

On April 18, 2018, a front-end loader operator observed that a portion of the “dirt dump” or refuse pile located on the top rim of the quarry had sloughed and the material had slid down to multiple benches below. An estimated 10,000 to 15,000 tons of material was involved in the slide. There were no injuries. The “dirt dump” was barricaded and posted against entry.

Best Practices

- Diligent monitoring and examination of slopes for signs of instability is imperative for protecting miners.
- Maintain safe operational practices for the protection of personnel, equipment, and facilities.
- Properly grade surfaces of dump piles to permit water to drain from the area.
- Provide warning of instability so action can be taken to minimize the impact of slope displacement.
- Provide crucial geotechnical information to analyze slope stability and design slopes to prevent instability.
- Once cracks are detected, the condition should be evaluated by a qualified engineer. Equipment should not operate across cracks until they are evaluated and the stability of the ground determined.

Blast Holes

On March 24, 2018, two miners were using a man-lift to charge (load) blast holes with non-electric blasting caps, 8-grain boosters and ammonium nitrate fuel oil (ANFO) blasting agent. During the loading

process, one of the non-electric shock-tubes became wedged on the man-lift basket. As the man-lift operator progressed across the face loading the blast holes, the wedged shock-tube stretched and broke (snapped) causing a pre-detonation of a blast hole. As a result of the pre-detonation, one miner received minor injuries and the other miner serious injuries.

Best Practices

- Explosive materials should be kept organized and under the direct observation of the blaster during loading operations so personnel and equipment does not inadvertently come in contact with them.
- The manufacturer’s recommendations regarding maximum loading on the tubing are to be followed (e.g., maximum primer weight lowered into hole by the tubing).
- Shock tubing is not to be subjected to undue tension by pulling, in hole to hole situations.
- Situations in which shock tubing is subjected to impact by falling rock, equipment etc. is to be avoided.
- Excess shock tubing can be coiled, but should not be cut off.
- Shock I tube downlines should be tied to pegs visible to vehicle operators.
- The blast crew should carefully consider the blast design and plan the loading sequence to avoid having to move over or too near to loaded holes.

What This Means for Counties

Maintaining a safe worksite is the responsibility of all employees. Proper training and safety precautions are necessary to prevent the loss of time, equipment, and lives. CTSI offers a range of certified MSHA safety classes to help you maintain a safe jobsite and workforce. Please contact CTSI Loss Prevention at 303 861 0507 to schedule a class. [ctsi](http://www.ctsi.org)