

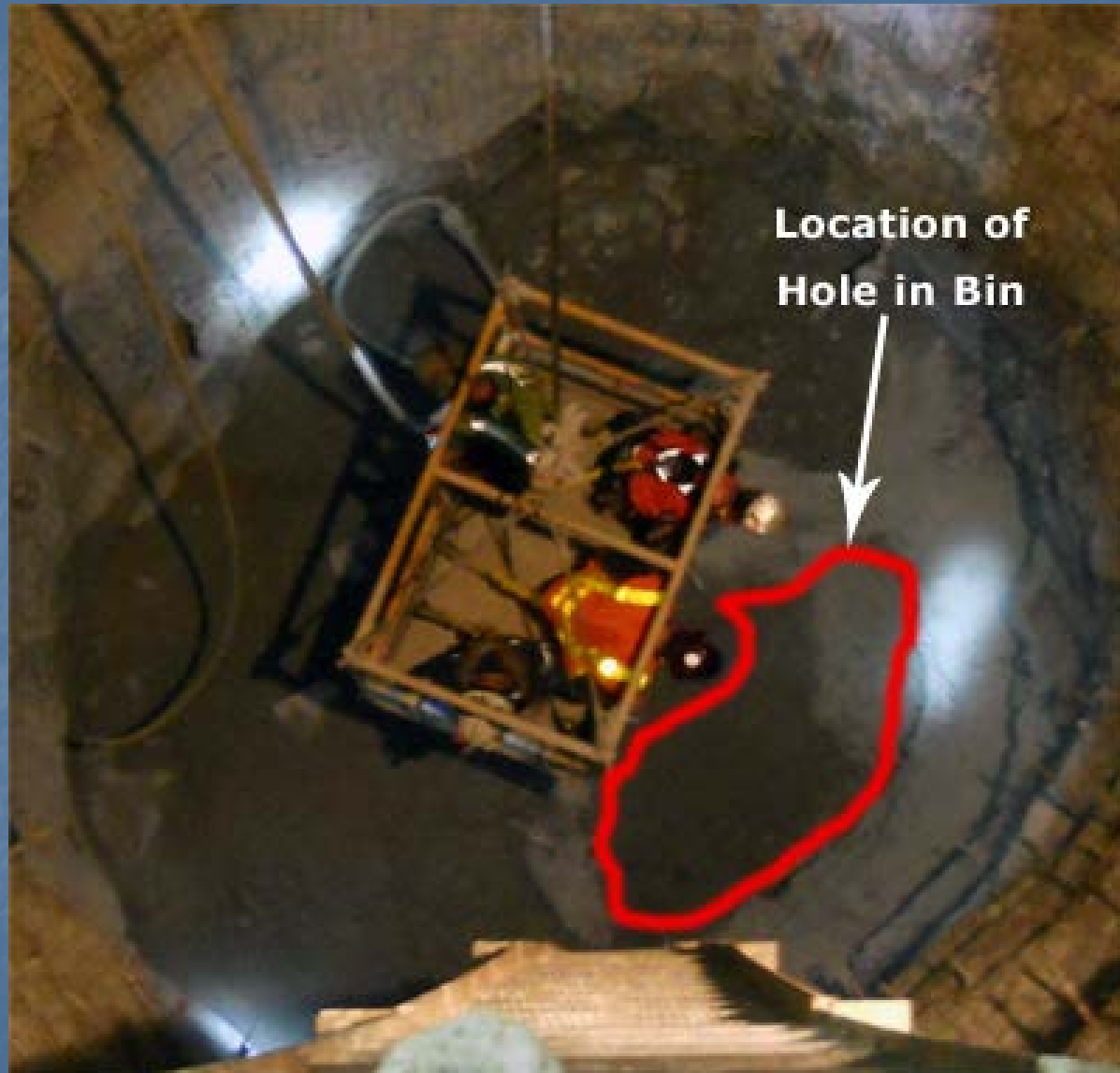
MNM Fatal 2011-14

- Fall of Person Accident
- November 17, 2011 (Nevada)
- Underground Silver Mine
- Contract Miner
- 26 years old
- 3 years, 5 months of experience

Overview

The victim was injured on November 17, 2011, while attempting to free plugged material in a bin excavation. The victim and a coworker entered the bin from the top to remove the blockage below them. The material gave way, engulfing them. The coworker was partially buried but was freed from the material, treated at a hospital, and released the same day. The victim was completely engulfed in the material. He was freed from the material and hospitalized where, as a result of his injuries, he died on November 19, 2011.

The accident occurred due to management's failure to ensure miners were provided with the proper personal protective equipment when required to remove blocked material in the bin. The miners were standing on the plugged material wearing harnesses attached to self-retracting lifelines. However, the lifelines used were designed for an unobstructed fall path. When the material suddenly flowed and the victims fell, there was not sufficient speed to cause the self-retracting lifelines to lock before the victims were engulfed in the material. The slow rate of fall for the miners working on top of the material in the bin did not permit the devices to lock. Additionally, the miners did not receive the proper training to safely perform the task of removing the blocked material from the bin.



**Location of
Hole in Bin**

Root Causes

Root Cause: Mine and contract management failed to establish procedures to safely unplug material in the bin, including the proper use of personal protective equipment.

Corrective Action: Mine and contract management established policies, procedures, and controls to finish the bin excavation. Management's new procedure does not allow miners to work on top of material that has the potential to move.

Root Cause: Contract management failed to ensure that miners had received training in the health and safety aspects and safe procedures regarding specific task training on how to safely unplug material blockage in the bins.

Corrective Action: Contract management provided training to all miners on the new procedures that were developed to finish the bin construction.

Best Practices

- Wear a safety harness and attach it to a securely anchored lanyard, where there is a danger of falling.
- In applications where the danger is not limited to a free-fall, do not use lanyards that depend on free-fall speed to lock. Follow the manufacturer's recommendations.
- Ensure that persons working on material in bins, silos, hoppers, tanks, and surge piles are properly tied-off, with one line tender per person. No persons should enter the facility until the supply and discharge equipment are locked out.
- Establish policies and procedures for safely clearing muck in a bin excavation and ensure that persons follow these safe procedures.
- Ensure that persons are task-trained and understand the hazards associated with the work being performed and the proper use of their personal protective equipment.