

MNM Fatal 2015-15

- Falling, Rolling, or Sliding Rock or Material
- August 03, 2015 (Virginia)
- Crushed & Broken Granite Surface Mine
- Truck Driver (Seasonal Associate)
- 18 years old
- 9 weeks of experience

Overview

On August 3, 2015, Daniel C. Potter, truck driver / seasonal associate, age 18, was killed at the Leesburg Plant. Potter had parked his truck alongside the “sand plant fines” silo under a conveyor belt to load his truck. After exiting the truck, Potter entered a door leading underneath the silo. Soon after entering the silo, the hopper portion of the structure collapsed, burying Potter beneath the falling material.

The accident occurred due to management’s failure to ensure that adequate inspections were conducted to properly evaluate the structural integrity of the “sand plant fines” silo. In addition, management failed to take necessary follow-up actions to repair or replace components in order to maintain the stability of the structure.



Root Causes

A root cause analysis was conducted and the following causal factors were identified.

Root Cause: Management failed to ensure that adequate inspection procedures were in place to properly evaluate the structural integrity of the “sand plant fines” silo. In addition, management failed to take necessary corrective actions in order to maintain the stability of the structure.

Corrective Action: Management contracted an independent engineering firm to evaluate the existing structure to ensure that prompt corrective actions were taken to restore or replace the “sand plant fines” silo.

Best Practices

- Routinely examine metal structures for indications of weakened structural soundness (corrosion, fatigue cracks, bent/buckling beams, braces or columns, loose/missing connectors, broken welds, spills of stored solids, etc.).
- Periodic detailed inspections should be performed which examine hopper and wall thicknesses, critical connections such as the hopper to the wall, and the material flow conditions. Both the inside and outside of the structure should be evaluated.
- Report any changes in the discharge flow pattern which may be a result of an internal obstruction that causes non-uniform pressures on the silo structure.
- Report all areas where indications of structural weakness are found.
- Schedule inspections of the silo's interior surface only when all material has been removed to determine if it has become polished and worn from use.