



Potential Fatal Event: 50-Foot Highwall Sloughed Off

Preliminary Incident Details

Operation	Morenci
Date / Time	May 15, 2023 / 9 p.m.
Type	Injury
Summary	A supervisor was standing at the edge of a highwall overlook to check on a shovel's progress when the 50-foot highwall sloughed off underneath. The supervisor slid down with the soft material and landed near the shovel. The shovel operator saw the supervisor's flashlight as it slid down and stopped digging. The supervisor received medical care for minor injuries.
Fatal Risk	Ground Failure
Risk Category	Actionable
Pre / Post Risk Rating	Significant (3) Likely (3) / Significant (3) Possible (2)
Absent / Insufficient Controls	<ul style="list-style-type: none"> Missing Crest Indicator (trench) for fill material
Applicable Policies / Procedures	<ul style="list-style-type: none"> HEO-FCX1081C Shovel Operation
Employee Condition	Minor abrasion to the left hand and minor puncture wound on the left palm requiring two stitches.
Contact	Haris (Kudir) Kudadiri, Manager-Fragmentation & Loading

Photos / Links



Highwall and location of supervisor and shovel at time of event.



Potential Fatal Event Learnings: 50-Foot Highwall Sloughed Off

Causal Factors

- Mine plan did not include a safety berm to protect personnel and equipment above the active shovel pit crest line
- No designated safe distance between the employee and the crest of the active shovel pit

Action Items	Hierarchy of Controls
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Dig line will be visible by the shovel runner by having a trench in place	Engineering
When mining fill or tailings material and access to the bench is needed, a safety berm will need to be a minimum of 13 ft (based off a 50' bench) from an active mining crest to keep miners safe from bench failures. If no access is required, access will be restricted. Global Action Item	Engineering
Document the safety berm requirement in administrative controls (i.e., SOP, Site Policy, etc..) and communicate requirement with Mine Operations. No personnel will be allowed access past the safety berm	Administrative

Additional Learnings / Opportunities

N/A

Fatal Risk Management Controls

- Verification Systems/Monitoring System – SUFFICIENT**
- Visual Inspections and Reporting – INSUFFICIENT**
- Are berms at adequate heights and thickness to keep equipment from going through?
 - Have area inspections for ground conditions been conducted prior to work commencing?
- Slope Planning and Building – INSUFFICIENT**
- Do personnel understand the construction methods and design parameters that will maintain ground stability in order to prevent ground hazards from developing?
- Excavation and Trenching – SUFFICIENT**