

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
Metal and Nonmetal Mine Safety and Health

REPORT OF INVESTIGATION

Underground Metal Mine
(Gold)

Fatal Powered Haulage Accident
January 26, 2008

Getchell Mine
Small Mine Development, LLC
Golconda, Humboldt County, Nevada
Mine ID No. 26-02233

Investigators

Bruce L. Allard
Supervisory Mine Safety and Health Inspector

Andre L. Singley
Mine Safety and Health Inspector

Keith Palmer
Mine Safety and Health Specialist

F. Terry Marshall
Mechanical Engineer

Originating Office
Mine Safety and Health Administration
Western District
2060 Peabody Road, Suite 610
Vacaville, California 95687
Arthur L. Ellis, District Manager



OVERVIEW

Michael P. Millican, truck driver, age 43, was fatally injured on January 26, 2008, when he was struck by a haul truck. Millican parked his truck in an intersection near the loading area and left. A short time later another miner got in the parked truck to move it out of the way. When this driver was backing up the truck, it struck the victim as he was returning to the truck.

The accident occurred because management procedures and controls were inadequate and failed to ensure that equipment operators sound a warning or use other effective means to warn persons who could be exposed to a hazard from the equipment.

GENERAL INFORMATION

Getchell Mine, an underground gold mine, operated by Small Mine Development LLC, was located near Golconda, Humboldt County, Nevada. The principal operating official was Paul J. Joggerst, project superintendent. The mine normally operated two 10-hour shifts per day, 7 days a week. Total employment was 40 persons.

Gold ore was drilled, blasted, and transported by load-haul-dump loaders (LHD) and trucks to the surface where it was processed by a milling operation. The finished products were sold to commercial industries.

The last regular inspection at this operation was completed on January 7, 2008.

DESCRIPTION OF THE ACCIDENT

On the day of the accident, Michael P. Millican, (victim) started work at 4:30 p.m., his normal starting time. He was assigned to drive a haul truck transporting ore from the 5035 muck bay to the surface. Millican and Isaias Araiza, truck driver, were waiting for Jose Salutrigui Jr., loader operator, to bring an LHD to the loading area of the 5035 muck bay. Araiza parked his truck in the 5035 muck bay, and Millican parked his truck in the 194 ramp just southwest of the 5020 drift intersection. They then walked into the 5020 drift approximately 80 to 100 feet from the intersection to wait for the LHD to arrive.

The truck drivers expected the LHD to come from the northeast traveling from the 5000 level of the 194 ramp to the 5020 drift. The 194 ramp was oriented southwest to northeast declining to the southwest. The LHD Salutrigui was operating approached the 5020 drift/194 ramp intersection from the opposite direction the truck drivers anticipated. About 5:30 p.m., Salutrigui approached from the southwest and found Millican's truck blocking access to the 5020 drift/194 ramp intersection.

Salutrigui left his LHD to move Millican's truck. He drove just past the 5020 drift/194 ramp intersection, stopped, and backed around the corner into the 5020 drift. At the same time, Millican and Araiza were standing in the 5020 drift 80 to 100 feet from the intersection of the 194 ramp when Millican's truck pulled forward past the intersection. Araiza walked to the 5035 muck bay, and Millican walked toward the 194 ramp.

Witnesses saw the truck start backing around the corner of the intersection and Millican walk into the intersection behind the truck as it started rounding the

corner into the 5020 drift. As Millican crossed behind the truck, the back right corner of the truck bed struck him. Millican fell and was run over by the truck's right rear tire.

Emergency medical technicians responded but Millican was nonresponsive. He was pronounced dead at 8:34 p.m. by the Humboldt County Coroner. The cause of death was attributed to blunt force trauma.

INVESTIGATION OF THE ACCIDENT

The Mine Safety and Health Administration (MSHA) was notified of the accident at 5:47 p.m., on January 26, 2008, by a telephone call from Steve Shipley, mine engineer, to the National Call Center. Michael Franklin, assistant district manager, was notified and an investigation began the same day. An order was issued under the provisions of section 103(k) of the Mine Act to ensure the safety of the miners.

MSHA's accident investigation team traveled to the mine, conducted a physical inspection of the accident scene, interviewed employees, and reviewed documents and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and employees, and the Humboldt County coroner's office.

DISCUSSION

Location of the Accident

The accident occurred at the 5020 drift/194 ramp intersection. The 194 ramp descended on a 13% grade from the 5000 level in a northeast to southwest direction. The 5020 drift ascended on a 14% grade toward the 5035 muck bay in a southeast to northwest direction from the 194 ramp. The 5035 muck bay was approximately 145 feet from the intersection.

Haul Truck

The truck involved in the accident was a John Clark Inc. (JCI) Articulated Haul Truck, Model Number 1804. The truck was a four-wheel drive articulated steer rear dumper with a payload capacity of 18 tons. It was powered by a Daimler-Chrysler AG model 0M906LA diesel engine and had an automatic transmission with four forward speeds, four reverse speeds, and a neutral position. The operator's compartment was equipped with an aftermarket full cab.

The truck was equipped with a manually operated horn and an automatic reverse activated audible alarm. Neither of these warning devices functioned when tested. Investigators found the power wire was broken at a splice near the backup alarm mounting area. The backup alarm functioned when this wire was reconnected.

Investigators determined one of the two flat-pin electrical connectors was disconnected from the horn terminal. The horn functioned when this was repaired. Horns and backup alarms are not required on underground self propelled mobile equipment. The applicable standard refers only to surface equipment at underground mines. A non-contributory citation was issued.

The truck had two rear facing work lights mounted behind the rear axle housing to illuminate the area behind it. Two rear facing work lights mounted on top of the Roll Over Protective Structure illuminated the area above the bed. These two groups of lights were controlled by the same push-pull control mounted in the dashboard panel to the right of the operator's seat. All four of the lights functioned when tested. The push-pull control was found in the on position during the post-accident inspection. However, according to witnesses the lights were not on at the time of the accident.

Training and Experience

Michael Millican (victim) had 10 years mining experience. He had 4 years 9 months experience operating a haul truck at this mine and had been trained in accordance with 30 CFR, Part 48.

Jose Salutrigui Jr. had 4 years 9 months experience operating equipment at this mine and had been trained in accordance with 30 CFR, Part 48.

ROOT CAUSE ANALYSIS

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

Causal Factor: Management procedures and policies were inadequate and failed to ensure that mobile equipment operators sounded warnings prior to movement of equipment to warn all persons who could be exposed to a hazard from the equipment.

Corrective Action: Management should establish policies and procedures to ensure that mobile equipment operators sound warnings prior to movement of mobile equipment.

CONCLUSION

The accident occurred because management procedures and controls were inadequate and failed to ensure that equipment operators sound a warning or use other effective means to warn persons who could be exposed to a hazard from the equipment.

ENFORCEMENT ACTION

Order No. 6394635 was issued on January 26, 2008, under the provisions of Section 103(k) of the Mine Act:

A fatal accident occurred at this operation on January 26, 2008, when a miner was struck by a haul truck in the intersection of the 194 ramp and 5020 drift. This order is issued to assure the safety of all persons at this operation. It prohibits all activity at the intersection of the 194 ramp and 5020 drift until MSHA has determined that it is safe to resume normal mining operations in the area. The mine operator shall obtain prior approval from an authorized representative for all actions to recover and/or restore operation to the affected area.

This order was terminated on January 30, 2008, after conditions that contributed to the accident no longer existed.

Citation No. 6370150 was issued on March 25, 2008, under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 57.14200:

A fatal accident occurred at this mine on January 26, 2008, when a miner was struck by a haul truck backing into the intersection of the 194 ramp and 5020 access. The equipment operator failed to sound a warning that was audible above the surrounding noise level or use other effective means to warn all persons who could be exposed to a hazard from the equipment prior to moving the mobile equipment.

This citation was terminated on March 25, 2008. Management instructed miners regarding policies and procedures to ensure that audible warnings or other effective measures are provided to warn persons of the hazards of moving mobile equipment.

Approved By:

Arthur L. Ellis

Date

APPENDICES

- A. Persons Participating in the Investigation**
- B. Maps**
- C. Victim Information**

APPENDIX A

Small Mine Development, LLC

Michael Drussell	director of safety
David Joggerst	project superintendent
Keith Hudson	foreman


Humboldt County Sheriff's Office

James Loveless	deputy sheriff
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Mine Safety and Health Administration

Bruce L. Allard	supervisory mine safety and health inspector
Andre L. Singley	mine safety and health inspector
Keith Palmer	mine safety and health specialist
F. Terry Marshall	mechanical engineer

APPENDIX C

Accident Investigation Data - Victim Information										U.S. Department of Labor									
Event Number: 1 1 4 1 0 1 4										Mine Safety and Health Administration									
Victim Information: 1																			
1. Name of Injured/Ill Employee: <i>Michael P. Millican</i>		2. Sex: <i>M</i>	3. Victim's Age: <i>43</i>		4. Last Four Digits of SSN:			5. Degree of Injury: <i>01 Fatal</i>											
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 01/26/2008 b. Time: 20:34</i>					7. Date and Time Started: <i>a. Date: 01/26/2008 b. Time: 16:30</i>														
8. Regular Job Title: <i>076 Truck Driver</i>			9. Work Activity when Injured: <i>092 Walking behind truck</i>				10. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
11. Experience a. This		Years	Weeks	Days	b. Regular		Years	Weeks	Days	c. This		Years	Weeks	Days	d. Total		Years	Weeks	Days
Work Activity:		<i>2</i>	<i>15</i>	<i>0</i>	Job Title:		<i>2</i>	<i>15</i>	<i>0</i>	Mine:		<i>2</i>	<i>16</i>	<i>3</i>	Mining:		<i>8</i>	<i>15</i>	<i>2</i>
12. What Directly Inflicted Injury or Illness? <i>077 Struck by haul truck</i>										13. Nature of Injury or Illness: <i>170 Crushing injuries to torso and head</i>									
14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																			
15. Company of Employment:(If different from production operator) <i>Operator</i>										Independent Contractor ID: (if applicable)									
16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																			
17. Part 50 Document Control Number: (form 7000-1)						18. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i>													
Victim Information:																			
1. Name of Injured/Ill Employee:		2. Sex:	3. Victim's Age:		4. Last Four Digits of SSN:			5. Degree of Injury:											
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:					7. Date and Time Started:														
8. Regular Job Title:			9. Work Activity when Injured:				10. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input type="checkbox"/>												
11. Experience a. This		Years	Weeks	Days	b. Regular		Years	Weeks	Days	c. This		Years	Weeks	Days	d. Total		Years	Weeks	Days
Work Activity:					Job Title:					Mine:					Mining:				
12. What Directly Inflicted Injury or Illness?										13. Nature of Injury or Illness:									
14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																			
15. Company of Employment: (If different from production operator)										Independent Contractor ID: (if applicable)									
16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																			
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1. Name of Injured/Ill Employee:		2. Sex:	3. Victim's Age:		4. Last Four Digits of SSN:			5. Degree of Injury:											
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:					7. Date and Time Started:														
8. Regular Job Title:			9. Work Activity when Injured:				10. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input type="checkbox"/>												
11. Experience a. This		Years	Weeks	Days	b. Regular		Years	Weeks	Days	c. This		Years	Weeks	Days	d. Total		Years	Weeks	Days
Work Activity:					Job Title:					Mine:					Mining:				
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14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																			
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16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																			
17. Part 50 Document Control Number: (form 7000-1)						18. Union Affiliation of Victim:													