MAI-2005-30

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

REPORT OF INVESTIGATION

Surface Metal Mine
(Gold)

Fatal Fall of Person Accident
October 22, 2005

Barrick Goldstrike Mines, Inc.
Goldstrike Mine
Carlin, Eureka County, Nevada
Mine ID No. 26-01089

Investigators

Rick D. Dance
Mine Safety and Health Inspector

Gerald A. Killion
Mine Safety and Health Inspector

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

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3’x 4’ opening victim fell through

OVERVIEW

On October 22, 2005, Matthew S. Willkie, strip operator, age 45, was fatally injured when he fell through a 3-foot by 4-foot opening in a mill building. The victim and another miner were pulling a sump pump through an opening in the second floor of the building. After the pump was removed, the victim fell through the opening into a sump below.

The accident occurred because safe work procedures were not utilized to protect persons working near an unguarded floor opening. The victim was working where there was a danger of falling and was not secured by a safety belt and line.

GENERAL INFORMATION

Goldstrike Mine, a surface gold ore mine and refining operation, owned and operated by Barrick Goldstrike Mines, Inc., was located 27 miles north of Carlin, Eureka County, Nevada. The principal operating official was Michael Feehan, vice president. The mine normally operated two 12-hour shifts a day, seven a week. Total employment was 1,102 persons.

Gold ore was drilled and blasted from an open pit and hauled to a central crusher. It was then transported to the mill for processing through one of two identical roasters and an autoclave. The finished product was sold to commercial industries.

A regular inspection was ongoing at the time of the accident.

DESCRIPTION OF ACCIDENT

On the day of the accident, Matthew S. Willkie (victim) reported to work at 6 a.m., his normal starting time. After a short crew meeting, Willkie and Arlen Fagg, strip operator, went to the wet mill strip circuit at the autoclave and started work. About 10:30 a.m., they noticed that the strip sump pump was not pumping at full capacity causing the water to rise on the ground floor of the autoclave wet mill strip area. Kelly Howard, relief foreman, and two mechanics came, took the discharge line apart, found a piece of rubber lodged in the line, and removed it. However, removing the obstruction did not correct the problem.

About 2:00 p.m., the mechanics left to get a spare pump ready so the pump could be changed out. Howard returned to the office. Since Willkie and Fagg both had experience pulling the pump, they decided to remove it for the mechanics. With the pump lines and the electrical system locked out and un-plugged, Willkie worked from the ground floor sump while Fagg remained on the second floor operating the hoist. Using the hoist, they removed the floor cover located above the sump and set it on the floor next to the filter press. They then hoisted the pump out of the sump. When this was completed, Willkie went to the second floor and helped Fagg lay down the pump on the floor.

Howard then called Willkie on his hand held radio and asked him to call back using the telephone. Willkie called Howard and told him they pulled the pump and placed it on the second level floor. Howard told Willkie that the mechanics would be there shortly to install the new pump.

Fagg could not see Willkie because he was facing away from the floor opening. Fagg turned around, did not see Willkie, and immediately approached the floor opening. He saw Willkie partially lying on the pump support on the ground floor. Fagg called Howard and told him that Willkie had fallen through the floor opening and asked for help. Howard rushed to the area and found Fagg performing cardiopulmonary resuscitation (CPR) while holding Willkie out of the 18-inch deep water on the strip circuit floor. Howard and Fagg moved Willkie to an open overhead doorway and called for emergency medical assistance. Willkie was transported to a local hospital where he was pronounced dead. Death was attributed to drowning.

INVESTIGATION OF THE ACCIDENT

MSHA was notified of the accident at 5:35 p.m. on October 22, 2005, by a telephone call from Steve Lambert, safety coordinator, to David Thome, supervisory mine safety and health inspector. An investigation was started 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 conditions and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and employees.

DISCUSSION

Location of the accident

The accident occurred on the second floor of the strip circuit wet mill area at the autoclave.

Second Floor

The second floor was constructed of expanded metal sections attached to steel support beams. A section of the floor, measuring four feet by three feet, had been removed and fitted with a steel plate cover. When the cover was removed, the opening was directly above a steel pump support located on the ground floor, 13 feet below. An electric powered, rail mounted, hoist was installed on the second floor to raise and lower the pump. A safety harness, reportedly worn by Fagg while he lifted the pump, was lying several feet from the floor opening. Several safety harnesses were located in a box about 20 feet from the accident scene.

Training

Mathew Willkie had 8 years and 7 months experience, all at this mine. He had received training in accordance with 30 CFR, Part 48 and had performed this job in the past.

ROOT CAUSE ANALISIS

A root cause analysis was performed and the following causal factors were identified:

Causal Factor: Administrative controls needed improvement because safe work procedures were not followed. The miners removed the floor cover to remove the pump, creating an opening to the sump below. The victim was working where there was a danger of falling near an unguarded floor opening and was not secured by a safety belt and line.

Corrective Action: Management should review requirements for using safety belts and lines to ensure that miners understand the established procedures when working at elevated positions where there is a danger of falling.

Causal Factor: A risk assessment was not conducted prior to beginning this task. The victim may not have recognized the hazard associated with working adjacent to the floor opening.

Corrective Action: Miners should discuss a task before beginning work to identify possible hazards and initiate actions to correct them. Management should monitor controls for effectiveness.

CONCLUSION

The accident occurred because safe work procedures were not used to protect persons working near an unguarded floor opening. The victim was working where there was a danger of falling and was not secured by a safety belt and line.

ENFORCEMENT ACTIONS

Order No. 6385609 was issued on October 22, 2005, under the provisions of Section 103 (k) of the Mine Act:

> A fatal accident occurred at this operation on October 22, 2005, when a strip operator at the autoclave wet mill strip area fell from the second deck to the sump below. This order is issued to ensure the safety of persons at this operation and prohibits any work in the affected area until MSHA determines that it is safe to resume normal operations as determined by an Authorized Representative of the Secretary of Labor. The mine operator shall obtain approval from an authorized representative for all actions to recover and/or restore operations in the affected area.

This order was terminated on October 26, 2005. The conditions that contributed to the accident have been corrected and normal mining operations could resume.

Citation No. 6371116 was issued on November 04, 2005, under the provisions of Section 104(a) of the Mine Act for violation of 30 CFR 56.15005:

> On October 22, 2005, a fatal accident occurred at this mine site when a miner fell approximately 12 feet. The victim and another miner had pulled a sump pump through a 3 foot by 4 foot opening in the second deck at the autoclave. After the pump was removed, the victim was working where there was a danger of falling and was not secured by a safety belt and line.

This citation was terminated on November 04, 2005. The hole in the floor was covered, retraining was provided to miners on fall protection, and designated anchorage points were established.

Approved By:

_____ _____

Arthur L. Ellis
District Manager

Date

APPENDIX

Persons Participating in the Investigation

Barrick Goldstrike Mines, Incorporated

Michael T. Feehan.....vice president
Craig F. Ross .....corporate safety manager
Daniel L. Inman .....safety director
Mike Heenan .....attorney
Stephen K. Lambert .....safety coordinator
Steven W. Yopps .....process manager
Steve A. Webb .....mill general supervisor
Daniel S. Donelli.....process safety & health

Mine Safety and Health Administration

Rick D. Dance .....mine safety and health inspector
Gerald A. Killion .....mine safety and health inspector