

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Open Pit Non Metal Mine
(Limestone)

Fall of Person
March 7, 2019

Robben's Fabrication and Mechanical, LLC
Contractor ID (B6573)
at
CEMEX Construction Materials South, LLC
Balcones Quarry
San Antonio, Texas
ID No. 41-00994

Accident Investigators

Wesley Hackworth
Supervisory Mine Safety and Health Inspector

Jason Hoermann
Mine Safety and Health Inspector

Homer Pricer
Supervisory Mine Safety and Health Inspector

Originating Office

Mine Safety and Health Administration
South Central District
1100 Commerce Street RM 462
Dallas, TX 75242
William D. O'Dell, District Manager

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OVERVIEW

Jesus Rene Dominguez, a 46-year-old contractor with three years of experience, died on March 7, 2019 at 3:30 a.m., after falling 12 feet from the top of a log washer. While Dominguez was tightening bolts on the log washer drive motor, his wrench slipped off the bolt head, causing him to lose balance and fall backwards. He fell through an approximately 16-inch gap between two log washers, striking a handrail before landing on an electrical cable tray. He suffered internal injuries and died at the hospital.

The accident occurred because the mine operator did not ensure that miners wore fall protection while performing maintenance work on an elevated platform.

GENERAL INFORMATION

CEMEX Construction Materials South, LLC (CEMEX) owns and operates Balcones Quarry, an open pit quarry located in New Braunfels, Texas. The mine operates two twelve-hour shifts, seven days a week, and employs 86 miners. Lance Griffin, Director of Aggregates, is the principal operations official.

Balcones Quarry utilizes the drilling and blasting mining method on multiple benches to extract limestone. Once the limestone is shot, it is loaded into haul trucks and transported to the primary crusher for processing, then conveyed to the secondary crusher for further size reduction. Some of the crushed limestone is taken to the wash plant where it is washed in two large log washers to meet Department of Transportation specifications.

The washed and unwashed limestone is then stockpiled and later loaded into customer trucks.

Robben's Fabrication and Mechanical, LLC (Robben) provides contract employees to Balcones Quarry.

The principal officers at this mine at the time of the accident were:

Lance Griffen Director of Aggregates
Robert Pollick Director of Health and Safety
Ray Sanchez Safety Coordinator
Adam Slusser Operations Manager

The Mine Safety and Health Administration (MSHA) completed its last regular inspection of this operation on July 26, 2018. The non-fatal day's lost (NFDL) incidence rate for the Balcones Quarry for 2018 was 0.74, compared to the national average of 1.36 for mines of this type.

DESCRIPTION OF ACCIDENT

On March 6, 2019, at approximately 8:33 p.m., Jose Antonio Jaime, Balcones Quarry Maintenance Leadman, began repair work on the north log washer. At around 12:35 a.m. on March 7, Leroy Vallejo, Balcones Quarry Maintenance Supervisor/Leadman, instructed Jesus Rene Dominguez (Robben's maintenance employee/victim) and Jesus Lopez Dominguez (Robben's maintenance employee) to assist Jaime in replacing the drive belts on the log washer.

Dominguez, Lopez Dominguez and Jaime accessed the 12-foot high top of the log washer several times during the repair. An in-house surveillance video showed that Dominguez wore fall protection during part of the operation but removed it at 2:44 a.m. Jaime and Lopez Dominguez did not wear fall protection at any time.

By 3:27 a.m., they had installed the replacement belts and Dominguez was tightening bolts to secure the drive motor that was on the top of the log washer. As he tightened one of the bolts, his wrench slipped, causing him to lose his balance. He stumbled backwards and fell through a narrow gap between the north and south log washers, striking a handrail before landing on an electrical cable tray.

Jaime and Lopez Dominguez descended and found Dominguez standing on an electrical cable tray adjacent to a walkway. He was complaining of chest and abdominal pain.

Jaime notified Armando Chavez Sr., Balcones Quarry Superintendent, of the accident while Lopez Dominguez told Dominguez to lay down on the cable tray until help arrived. Chavez arrived at the accident scene and called 911, then went to one of the mine entrances to escort emergency responders to the accident scene. New Braunfels Fire Department (EMS) arrived at 3:54 a.m. and, with assistance of the miners, moved

Dominguez to an ambulance and transported him to Brooks Army Medical Center in San Antonio, Texas. Dominguez was pronounced dead at 6:12 a.m. by Shawn C. Nessen, COL MC Primary Surgeon.

INVESTIGATION OF ACCIDENT

At 8:38 a.m., Jimmy Robben, owner of Robben's Fabrication & Mechanical LLC, contacted Ray Sanchez, Balcones Quarry Safety Coordinator, to inform him of the fatal accident. Sanchez contacted the Department of Labor's National Contact Center (DOLNCC) at 8:51 a.m. (CST) on March 7, 2019, to notify MSHA of the accident. Homer Pricer, MSHA Supervisory Inspector, and Jason Hoermann, MSHA Inspector, were dispatched to the mine site. Upon arrival, Pricer and Hoermann issued an order under Section 103(k) of the Mine Act to secure the scene and ensure the safety of the miners.

MSHA's accident investigation team conducted a physical inspection of the accident site, interviewed miners, and reviewed conditions and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and miners. See Appendix A for persons participating in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the wash plant where two log washers are side by side. The north log washer is a McLanhan Super Mudmaster 46' x 35' and the south log washer is a 44' x 35' unit. The gap between the log washers ranges from 15 ¾-inches at the motor drive end to 16-inches on the opposite end and is approximately 35 feet long. (See Appendix B)

Log Washer

The McLanhan Super Mudmaster 46' x 35' removes clay and other debris by material-on-material inter-particle scrubbing, as well as interaction with paddle shafts and water. Intermeshing paddle shafts scrub and convey the material over the length of the machine to the discharge, while dissolved clay and mud are removed in a water slurry.

Maintenance Activity involved in Accident

The miners were replacing the drive belts on the motor of the north log washer when the accident occurred. They stood on top of the north log washer, which was covered by a metal screen. There were catwalks on all sides of the north and south log washers except for the gap between them.

In order to access the drive belts, the miners had to loosen four bolts that secured the motor to the base plate. After the repair work was done, they moved the motor back to position and began to tighten the four bolts.

While tightening the front bolt, Dominguez stood while he was bending over and pulled the wrench toward himself. His wrench slipped, causing him to lose balance and fall backward. He stumbled when his left foot hit the electrical power cable and he fell through the narrow gap between the log washers.

Fall Protection

Balcones Quarry policy required fall protection to be worn for all work conducted at 4 feet and higher. Dominguez had been trained in this policy, as had Jaime and Lopez Dominguez. Based on investigator's interviews, Lopez Dominguez knew that fall protection was required to be worn for this work assignment. Fall protection equipment was available to all three miners, and in fact, the victim was wearing fall protection for part of the shift but removed it before the fatal accident. Investigators were unable to determine why the victim had removed his fall protection. Jaime, who was a leadman, was on the structure observing the work being performed. He had first-hand knowledge that neither he, nor Dominguez and Lopez Dominguez were utilizing fall protection for over several hours after Dominguez removed his fall protection. Jaime, Dominguez, and Lopez Dominguez were exposed to multiple fall hazards.

Weather

The weather at the time of the accident was cloudy, with light winds, and a temperature of 53°F. Weather was not a factor in the accident.

TRAINING AND EXPERIENCE

Jesus Rene Dominguez was hired by Robben's Fabrication & Mechanical, LLC on May 7, 2018, and worked at the Balcones Quarry for his entire 43 weeks with the company. Interviews revealed he had previous maintenance experience working at mines for a previous employer. Records showed that Dominguez received annual refresher training in February 2019, but did not receive newly hired experienced miner training upon employment with Robben's Fabrication & Mechanical, LLC. The mine operator provided the victim with site-specific hazard awareness training in accordance with their established training plan. The use of fall protection was a topic that was discussed in the annual refresher training the victim received February 2019, provided by Westward Environmental, Inc.

MSHA issued non-contributory citations to Balcones Quarry and Robben's Fabrication and Mechanical, LLC for failure to comply with 30 CFR § 46.6, newly hired experienced miner training requirements.

ROOT CAUSE ANALYSIS

The accident investigation team conducted a root cause analysis to identify the underlying cause of the accident. The team identified the following root cause and the mine operator implemented the corresponding corrective actions to prevent a recurrence.

Root Cause: The mine operator did not ensure that miners wore fall protection where there was a danger of falling.

Corrective Action: The operator retrained miners and contract employees on the requirement of wearing fall protection and their “working at heights” policy. The operator also provided additional guarding at the log washers for working on top of the log washers.

CONCLUSION

Jesus Rene Dominguez, a 46-year-old contractor with three years of experience, died on March 7, 2019, after falling 12 feet from the top of a log washer. While Dominguez was tightening bolts on the log washer drive motor, his wrench slipped off the bolt head, causing him to lose balance and fall backwards. He fell through an approximately 16-inch gap between two log washers, striking a handrail before landing on an electrical cable tray. He suffered internal injuries and died at the hospital.

The accident occurred because the mine operator did not ensure that miners and contract employees wore fall protection while performing maintenance work on an elevated platform.

Approved: _____ Date: _____

William D. O’Dell
South Central District Manager

ENFORCEMENT ACTIONS

Order No. 88966615– Issued on March 7, 2019, under section 103(k) of the Federal Mine Safety and Health Act of 1977:

An accident occurred at this location on March 7, 2019, at approximately 3:30 a.m. This order is being issued under section 103 (k) of the Federal Mine Safety and Health Act of 1977, to ensure the safety of all persons at this operation. This order is also being issued to prevent further destruction of any evidence which would assist in investigating the cause or causes of the accident. This order prohibits all activity at the Log Washer Plant and surrounding areas including the contractor's equipment/welding truck until MSHA has determined that it is safe to resume normal operations in these areas.

Order No. 8965050 –Issued to CEMEX Construction Materials South, LLC's Balcones Quarry (41-00994), on June 12, 2019, under the provision of section 104(d) of the Mine Act for violation of 56.15005:

An accident, resulting in fatal injuries, occurred on this mine site on March 7, 2019, at approximately 3:30 a.m., when a contractor miner fell from the top of the north log washer and struck the structure below. The contractor miner was attempting to tighten a mounting bolt on the drive motor when the wrench slipped, causing him to fall backward and into a gap between the two log washers. The contractor miner was not wearing fall protection at the time of the accident. Mine management engaged in aggravated conduct constituting more than ordinary negligence in that a leadman was also on the structure observing the work being performed. This leadman had first-hand knowledge that neither he, nor two other miners, were utilizing fall protection for several hours before the fatal accident. The miners working on the log washer were exposed to multiple fall hazards. This is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A
Persons Participating in the Investigation
(Persons interviewed are indicated by a * next to their name)

CEMEX Construction Materials South, LLC

Robert PollickDirector of Health and Safety

Balcones Quarry

*Ray SanchezSafety Coordinator
*Jose Antonio Jaime.....Maintenance Leadman
*Armando Chavez Sr. Superintendent
*Leroy Vallejo..... Maintenance Supervisor / Leadman

Robben's Fabrication & Mechanical LLC

*Jimmy Robben.....Owner
*Jesus Lopez Dominguez..... Maintenance Employee

Mine Safety and Health Administration

Wesley HackworthSupervisory Mine Safety and Health Inspector
Jason Hoermann Mine Safety and Health Inspector
Homer Pricer.....Supervisory Mine Safety and Health Inspector

APPENDIX B
Log Washer Photos

