

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Open Pit Non Metal Mine
(Sand and Gravel)

Powered Haulage
May 18, 2019

Rogers Group Inc.
West Amarillo Sand & Gravel
Vega, Texas
ID No. 41-04358

Accident Investigators

Dwight Shields
Supervisory Mine Safety and Health Inspector

John Lewis
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

Table of Contents

OVERVIEW	1
GENERAL INFORMATION	2
DESCRIPTION OF ACCIDENT	2
INVESTIGATION OF ACCIDENT	3
DISCUSSION	3
Location of the Accident.....	3
Cone Crusher	3
Personnel Lift.....	3
Activity Involved in the Accident.....	3
Fall Protection.....	4
Weather	4
TRAINING AND EXPERIENCE	4
ROOT CAUSE ANALYSIS	4
CONCLUSION	4
ENFORCEMENT ACTIONS	5
APPENDIX A	6
APPENDIX B	7
APPENDIX C	8



OVERVIEW

Richard E. Ramirez, a 35-year old plant operator with eight years of experience, died on May 18, 2019, at 4:25 p.m., after falling 28 feet from the basket of a personnel lift. Ramirez was using the personnel lift to access a cone crusher feed box to clear a stoppage. He was wearing a fall protection harness with a retractable lanyard, but the lanyard was not attached to the basket's tie off points.

The accident occurred because management did not ensure that the victim properly used fall protection where there was a danger of falling.

GENERAL INFORMATION

Rogers Group Inc. owns and operates West Amarillo Sand & Gravel (West Amarillo), an open pit mine located north of Vega, Oldham County, Texas. The mine operates one, 11-hour shift, six days a week, and employs 26 miners.

West Amarillo utilizes excavators and front end loaders to mine sand and gravel from multiple pits. Portable screen plants separate material that is further processed through West Amarillo's dry plant or main plant. Any oversized material is processed through a cone crusher. The final products are shipped by customer trucks.

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

Chris Collins.....Texas General Manager
Art Acosta.....Area Production Manager
Todd Thornton.....Safety Manager - Western Division
Lance Aaron.....Foreman

The Mine Safety and Health Administration (MSHA) completed its last regular inspection of this operation on October 11, 2018. The non-fatal days lost (NFDL) incidence rate for West Amarillo for 2018 was zero (0) compared to the national average of 1.15 for mines of this type.

DESCRIPTION OF ACCIDENT

On May 18, 2019, Ramirez arrived at the mine site at approximately 6:50 a.m., and started the main plant at approximately 7:54 a.m. At approximately 12:45 p.m., Ramirez shut down the plant to unplug a sand line and re-started it at approximately 2:48 p.m. At approximately 3:00 p.m., Lance Aaron, Foreman, was at the main plant motor control center with Ramirez. At 3:29 p.m., Aaron received a phone call regarding an unrelated business matter and left the area. During the time Aaron was away, Ramirez used the Snorkel TB-60D7 personnel lift to access the cone crusher feed box to free a blockage.

At approximately 3:36 p.m., while Aaron was returning to the plant, he received a radio call from Ramirez asking him to start the belt. Aaron approached the area to start the belt and witnessed Ramirez falling from the basket. Aaron proceeded immediately to Ramirez, checked for a pulse, and called 911. Brandy Williams, Haul Truck Driver, was near the plant dump hopper at the time of the accident. She witnessed Ramirez inside the basket backing away from the plant and then saw Ramirez falling in an inverted position from the basket.

Oldham County Sheriff's Office Deputy and Boys Ranch Emergency Medical Services arrived at 3:58 p.m. Kristi O'Malley, Oldham County's Justice of the Peace, arrived and pronounced the victim dead at 4:25 p.m.

INVESTIGATION OF ACCIDENT

At 3:42 p.m., Aaron contacted Todd Thornton, Safety Manager – Western Division, to inform him of the accident. Thornton contacted the Department of Labor’s National Contact Center (DOLNCC) at 3:48 p.m. John Lewis, MSHA Inspector, and Dwight Shields, MSHA Lead Investigator, were dispatched to the mine site. Upon arrival, Lewis 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 main plant in the cone crusher area.

Cone Crusher

The cone crusher is a Sandvik Model # CH550, Serial #0990S15216, with a fabricated feed box between the conveyor and the crusher. The cone crusher is the primary crusher at the main plant. (See Appendix B). West Amarillo installed the cone crusher and a new feed belt between May 2, 2019 and May 5, 2019, and started operating them on May 6, 2019. The mine encountered material flow problems with the feed belt and feed box from the beginning and made several modifications to try to resolve the issues. When a stoppage occurred, miners accessed the feed box from above by using a personnel lift, or from the crusher platform below, using a steel pry bar to break the stoppage loose.

Personnel Lift

The personnel lift is a Snorkel Model # TB-60D7, Serial # MY07112 (See Appendix C). At the time of the accident, the bottom of the basket was 28 feet above the ground. The boom was extended to a length of 37 feet, 2 inches, measured from the rear boom pin to the basket pin.

Activity Involved in the Accident

The investigation team concluded that Ramirez would have positioned the basket directly above the cone crusher to access the feed box. The team found a pry bar and belt scraper bushing on the ground approximately 31 feet from the platform. In interviews, miners said that in the past, miners used the pry bar to free blockage in the cone crusher feed box.

The basket’s torque plate was found to be damaged which caused the basket to move laterally, uncontrolled by the operator. The investigation team could not determine if the damage to the torque plate was the result of the bottom of the basket contacting a dowel pin on top of the cone crusher. Based on witness accounts, Ramirez was tramping the personnel lift away from the cone crusher structure just prior to the accident. Witnesses said the basket appeared to bounce up and down and the victim cartwheeled over the edge of the basket. The terrain, speed, damage

to the torque plate, and the boom arm extended 37 feet were factors causing the basket to move in an uncontrolled manner.

Fall Protection

West Amarillo's policy states that fall protection must be used where required and the user must be properly tied off in all applicable situations. Ramirez had been trained on this policy. Although the policy did not specifically address tie off procedures in a personnel lift basket, the basket had a label warning equipment operators to wear fall protection at all times. The victim was wearing a fall protection harness and a six foot retractable lanyard, but the lanyard was not tied off at the time of the accident.

Weather

The weather at the time of the accident was clear, with light winds, and a temperature of 51°F. Weather was not a factor in the accident.

TRAINING AND EXPERIENCE

In October 2018, Richard E. Ramirez received annual refresher training that included the required use of fall protection while working at the nearby Bonita Pit owned and operated by Rogers Group Inc. He started working at West Amarillo in December of 2018. MSHA determined there were no contributory training deficiencies.

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 action to prevent a recurrence.

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

Corrective Action: The mine operator retrained plant operators and plant maintenance personnel on the requirement of wearing fall protection and their "working at heights policy" to include the requirement to tie off while using a personnel lift.

CONCLUSION

Richard E. Ramirez died after falling 28 feet from a personnel lift basket. Ramirez was using the personnel lift to access a cone crusher feed box to clear a stoppage. He was wearing a fall protection harness with a retractable lanyard, but the lanyard was not attached to the basket's tie off points. The accident occurred because management did not ensure that the victim used fall protection where there was a danger of falling.

ENFORCEMENT ACTIONS

Order No. 9455074 - Issued on May 18, 2019, under the provisions of 103(k) of the Federal Mine Safety and Health Act of 1977:

A fatal accident occurred at this operation on May 18, 2019 when a miner was operating a Snorkel Personnel Lift (Model # TB-60D7, Serial # MY07112) and was ejected out of the basket. This order is issued to ensure the safety of all persons at this operation. All persons are prohibited from entering the main plant approximately 150' from the Snorkel lift. The mine operator shall obtain prior approval from an authorized representative for all actions to recover and/or restore operations in the affected area.

Citation No. 9406807 - Issued to West Amarillo Sand & Gravel, on July 29, 2019, under the provisions of Section 104(a) of the Mine Act for violation of 30 CFR 56.15005:

A miner was fatally injured at this mine site on May 18, 2019, at approximately 3:37 p.m., when he fell from the Snorkel TB-60D7 personnel lift basket he was operating at a height of 28 feet. The miner was wearing a fall protection harness and a retractable lanyard, but the lanyard was not tied off to the tie off points in the basket.

Approved: _____ Date: _____

William D. O'Dell
South Central District Manager

APPENDIX A

Persons Participating in the Investigation

(Persons interviewed are indicated by a * next to their name)

Rogers Group Inc.

Tim Gorman Vice President SMA Manager
Marty Tubbs Director of Safety and Health
Todd Thornton Safety Manager - Western Division
Chris Collins Texas General Manager
Art Acosta Area Production Manager

West Amarillo Sand & Gravel

*Lance Aaron Foreman
*Travis (Sam) Bell Maintenance
*Jordan Griffith Maintenance
*Zachary Blasingame Dry Plant Operator
*Johnnie Childers Maintenance
*Brandy Williams Haul Truck Driver
*Thomas Christen Yard Loader Operator
*James Wyrick Haul Truck Driver
*Efrain Acosta Plant Ground Man

Mine Safety and Health Administration

Dwight Shields Supervisory Mine Safety and Health Inspector
John Lewis Mine Safety and Health Inspector
Dustin Hinchman Mining Equipment Compliance Specialist
Nicholas Fallova General Engineer

APPENDIX B
Cone Crusher
Sandvik CH550



APPENDIX C
Personnel Lift
Snorkel Model # TB-60D7

