

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Crushed & Broken Sandstone)

Fatal Electrical Accident
February 6, 2023

Greenbrier Quarry
Rogers Group Inc
Greenbrier, Faulkner County, Arkansas
ID No. 03-00855

Accident Investigators

Ty Fisher
Supervisory Mine Safety and Health Specialist

Dave Smith
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Dallas District
1100 Commerce Street Room 462
Dallas, TX 75242
William O'Dell, District Manager

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OVERVIEW

On February 6, 2023, at approximately 3:45 p.m., Javier Regalado-Cano (Regalado), a 61 year-old haul truck driver with over a year of mining experience, was fatally injured when he received an electrical shock. While Regalado was operating a haul truck, he raised the bed of the haul truck into the energized overhead 13,800-volt phase-to-phase power lines (power lines). Regalado exited the haul truck and extinguished a fire on the haul truck's left rear dual tires. Regalado received an electrical shock when he contacted the energized haul truck while reentering it.

The accident occurred because the mine operator did not: 1) install warning devices for the power lines, and 2) de-energize or take other precautionary measures when mobile equipment was operating near energized power lines.

GENERAL INFORMATION

Rogers Group Inc owns and operates the Greenbrier Quarry mine. This mine is a surface crushed and broken sandstone mine located in Greenbrier, Faulkner County, Arkansas. The mine employs 13 miners. At the time of the accident, the mine was operating one twelve-hour

shift, five days per week. The mine extracts sandstone from the multiple bench quarry by drilling and blasting, then excavates and hauls the broken sandstone to the plant for processing. The finished product is sold and used in the construction industry.

The principal management official at Greenbrier Quarry at the time of the accident was:

Bobby McDonnell

Plant Manager

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on April 25, 2022. The 2022 non-fatal days lost incident rate for Greenbrier Quarry was zero, compared to the national average of 1.67 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On February 6, 2023, at 6:45 a.m., David Stafford, Leadman, assigned Regalado to operate a haul truck, and Brian Wood, Equipment Operator, to load and haul boulders from the plant area with a front-end loader. At approximately 11:20 a.m., Stafford re-assigned Regalado and Wood to load and haul shale material to the road designated as the “Stripping Road” (see Appendix A). Jeremy Hattenhuaer, Equipment Operator, was operating a hydraulic excavator repairing soft spots on the Stripping Road. Regalado hauled the shale material to Hattenhuaer and dumped the shale material at a wide spot in the road.

As Hattenhuaer and Regalado were nearing the end of the Stripping Road repairs, Hattenhuaer requested a load of ¾ inch round gravel to repair the road at the gate area. Hattenhuaer later realized that he was still going to need another load of shale material to finish the road repairs. When Regalado arrived with the load of different material, Hattenhuaer asked Regalado to dump it by the gate. At approximately 3:45 p.m., Hattenhuaer glanced back towards Regalado, saw his haul truck’s bed was in the raised position, and noticed what he thought was a brake fire on the left dual tires. Hattenhuaer called Regalado to tell him to get his fire extinguisher. Hattenhuaer also took a fire extinguisher from his excavator. Regalado and Hattenhuaer dismounted their vehicles and extinguished the fire.

Regalado told Hattenhuaer that he would lower the bed and move his haul truck in order to examine the tires. Hattenhuaer walked towards his hydraulic excavator when he heard Regalado yell at him. When he turned around, Regalado was pointing up at his haul truck’s bed where it was touching the power lines. Hattenhuaer yelled “no” as Regalado touched the energized handrail of the haul truck and fell to the ground.

Hattenhuaer immediately called on the radio for someone to call 911. Hattenhuaer then moved Regalado away from the haul truck. McDonnell heard the call from Hattenhuaer over the radio and arrived at the accident site with an automated external defibrillator. McDonnell and Hattenhuaer started cardiopulmonary resuscitation (CPR) on Regalado.

At 3:53 p.m., Olivia Turner, Equipment Operator, heard the call from Hattenhuaer and called 911 on his cellphone. At 4:03 p.m., paramedics arrived and relieved mine personnel administering CPR. Lifesaving efforts continued as paramedics transported Regalado to Conway

Baptist Hospital. Hospital personnel transferred Regalado to the University of Arkansas Medical Hospital. On February 7, 2023, Erin Kindy, Advanced Practice Registered Nurse, pronounced Regalado dead at 9:19 a.m.

INVESTIGATION OF THE ACCIDENT

On February 6, 2023, at 4:13 p.m., Todd Thornton, Western Division Safety Manager, called Dwight Shields, Supervisory Mine Safety and Health Inspector, to report the accident. Shields informed Thornton to also call the Department of Labor National Contact Center (DOLNCC) to report the accident. At 4:19 p.m., Thornton called the DOLNCC. The DOLNCC contacted Ronnie Free, Supervisory Mine Safety and Health Inspector. Free contacted Brett Barrick, Assistant District Manager, who sent Dave Smith, Mine Safety and Health Inspector, to the mine.

At 6:34 p.m., Smith arrived at the mine and issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and the preservation of evidence. Barrick assigned Ty Fisher, Supervisory Mine Safety and Health Specialist, as the lead accident investigator.

On February 7, 2023, Smith and Fisher continued the investigation by conducting an examination of the accident scene, interviewing miners and mine management, and reviewing conditions and work practices relevant to the accident. See Appendix B for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the gate on the Stripping Road (see Appendix C).

Weather

The weather at the time of the accident was 62 degrees Fahrenheit with partly cloudy skies. Investigators determined that weather did not contribute to the accident.

Overhead High-Voltage Power Lines

Entergy Power Co. owns the power lines and has a right of way to cross the mine's property. The 13,800 phase-to-phase power lines cross over the Stripping Road near the gate. At the location of the accident, the lowest two lines were energized 13,800-volt power lines at 26.5 feet above the ground. When raised, the truck bed height was over 27 feet and within reach of the energized power lines. Members of mine management travel this road daily. The power lines are obvious and low hanging in relation to the size of the equipment operated in the area.

There was a warning sign for power lines at the entrance onto the Stripping Road. The entrance to the Stripping Road is approximately 1,151 feet from the accident location and the warning sign at the entrance cannot be seen from the accident location. There are three places along the Stripping Road where equipment can cross under the power lines. The first crossing is at the scrap metal yard, 621 feet from the warning sign. The second crossing begins 635 feet from the

danger sign and continues under the power lines for approximately 175 feet. The third crossing is over 100 feet wide and located at the intersection of the boneyard access and the Stripping Road, 1,111 feet from the warning sign. All three crossings are out of sight of the danger sign posted at the entrance to the Stripping Road. Investigators found another warning sign hidden in the grass some distance from the road. The second sign faced away from the road and was not visible from the road. The mine operator did not install warning devices conspicuously marking the overhead high-voltage power that were directly above the area where Regalado raised the bed of his haul truck. Investigators determined that this contributed to the accident.

Equipment Involved

The haul truck involved in the accident was a 2007 Caterpillar 770 Haul Truck with a 40-ton payload and a 32.9 cubic yard carrying capacity. The haul truck operating height unloaded with the bed down is 13 feet and seven inches. With the bed raised, the height of the haul truck is 27 feet and two inches. Investigators examined the haul truck and found no defects that contributed to the accident.

Examinations

The investigation team reviewed the pre-operational inspection records for the haul truck conducted by Regalado, and he noted no deficiencies. The investigation team reviewed the pre-operational inspection records for the haul truck conducted by Regalado, and he noted no deficiencies. The investigation team reviewed the workplace examination conducted by Stafford on the morning of the accident and Stafford noted no hazards. Stafford examined only the area where the mine operator was repairing the road and he did not know that the scope of work was modified by the excavator operator or the victim. Investigators determined that this did not contribute to the accident.

Training and Experience

Regalado had over a year of mining experience with over four months at the Greenbrier Quarry and over one year operating haul trucks. Regalado operated the haul truck around the plant areas and quarry on a regular basis and dumped materials at locations in and around the plant as needed. However, the area of the accident was not typically traveled and dumping material under the power lines along the roadway was not a normal routine. Regalado received new miner training, which included power lines; annual refresher training; and task training for Caterpillar 770 Haul Trucks.

ROOT CAUSE ANALYSIS

The accident investigation team conducted an analysis to identify the underlying causes of the accident. The team identified the following root causes, and the mine operator is in the process of implementing the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator did not install warning devices conspicuously marking the power lines.

Corrective Action: The mine operator submitted a written plan to install suitable danger signs visible from all approaches for all the major high-voltage overhead power lines at the Greenbrier Quarry.

2. Root Cause: The mine operator did not de-energize or take other precautionary measures when mobile equipment was operating near energized power lines.

Corrective Action: The mine operator submitted a written plan to lower the road and install markers on the power lines.

CONCLUSION

On February 6, 2023, at approximately 3:45 p.m., Javier Regalado-Cano (Regalado), a 61 year-old haul truck driver with over a year of mining experience, was fatally injured when he received an electrical shock. While Regalado was operating a haul truck, he raised the bed of the haul truck into the energized 13,800-volt phase-to-phase power lines (power lines). Regalado exited the haul truck and extinguished a fire on the haul truck's left rear dual tires. Regalado received an electrical shock when he contacted the energized haul truck while reentering it.

The accident occurred because the mine operator did not: 1) install warning devices for the power lines, and 2) de-energize or take other precautionary measures when mobile equipment was operating near energized power lines.

Approved By:

William O'Dell
District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Rogers Group Inc.

A fatal accident occurred on February 6, 2023, at approximately 3:45 p.m. This order is being issued under the authority of the Federal Mine Safety and Health Act of 1977, under Section 103(k) to insure the safety of all persons at the mine and requires the operator to obtain the approval of an authorized representative of MSHA of any plan to recover any person in the mine or to recover the mine or affected area. This order prohibits any activity in the affected area. The operator is reminded of the obligation to preserve all evidence that would aid in investigating the cause or causes of the accident in accordance with 30 CFR 50.12.

2. A 104(a) citation was issued to Rogers Group Inc for a violation of 30 CFR 56.9306.

On February 6, 2023, a fatal accident occurred at this mine while a haul truck driver was operating a CAT 770 Haul Truck and raised the haul truck's bed into the overhead energized 13,800-volt phase-to-phase power lines. The haul truck driver exited the haul truck to extinguish a fire on the haul truck's left rear dual tires and was electrocuted when he contacted the energized haul truck while reentering it. The mine operator did not install warning devices conspicuously marking the hazard of the restricted clearance of the overhead high-voltage powerlines along the Stripping Road in advance of equipment working there.

3. A 104(a) citation was issued to Rogers Group Inc for a violation of 30 CFR 56.12071.

On February 6, 2023, a fatal accident occurred at this mine while a haul truck driver was operating a CAT 770 Haul Truck and raised the haul truck's bed into the overhead energized 13,800-volt phase-to-phase power lines. The haul truck driver exited the haul truck to extinguish a fire on the haul truck's left rear dual tires and was electrocuted when he contacted the energized haul truck while reentering it. The haul truck driver's work assignment on February 6, 2023, required him to travel within ten feet of energized overhead high-voltage power lines throughout his shift. The mine operator did not deenergize or take other precautionary measures where equipment was operating within ten feet of clearance of the energized overhead high-voltage power lines along the Stripping Road.

APPENDIX A – Aerial View of the Accident Scene



APPENDIX B – Persons Participating in the Investigation

Rogers Group Inc

Timothy Gorman	Vice President
Todd Thornton	Western Division Safety Manager
Dwayne Gabbard	Arkansas Production Manager
Martin Tubbs	Western Division HR Manager
Bobby McDonnell	Plant Manager
David Stafford	Leadman
Stephanie Walley	Scale House Attendant
Jeremy Hattenhuaer	Equipment Operator
Olivia Turner	Equipment Operator
Brian Wood	Equipment Operator

Entergy Power Co.

Webb Darling	Solicitor / Engineer
Jason Johnson	Supervisor

Mine Safety and Health Administration

Brett Barrick	Assistant District Manager
Steven Oates	Staff Assistant
Ty Fisher	Supervisory Mine Safety and Health Specialist
Dwight Shields	Supervisory Mine Safety and Health Inspector
Dave Smith	Mine Safety and Health Inspector

APPENDIX C – Aerial View of Greenbrier Quarry & Stripping Road

