FAI-6886500-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Sand and Gravel)

Fatal Powered Haulage Accident
January 26, 2022

Ouachita Rock Portable
Ouachita Rock, Inc.
Mena, Polk County, Arkansas
ID No. 03-01867

Accident Investigators

William Clark
Mine Safety and Health Specialist

David Smith
Mine Safety and Health Inspector

Ty Fisher
Mine Safety and Health Specialist

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

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OVERVIEW

On January 26, 2022, at approximately 7:45 a.m., Patrick Green, a 53 year-old loader operator with approximately three years of mining experience, died when he was pinned under the wheel of an over-the-road dump truck (dump truck). The driver of the dump truck was unaware that Green had crawled under the dump truck to diagnose a braking system malfunction.

The accident occurred because the mine operator: 1) did not ensure the dump truck was blocked against hazardous motion before performing repairs to the braking system, and 2) did not ensure that miners on foot communicated their presence and intended actions when approaching mobile equipment.

GENERAL INFORMATION

Ouachita Rock, Inc. owns and operates the Ouachita Rock Portable mine. This is a surface sand and gravel mine located in Mena, Polk County, Arkansas. Ouachita Rock Portable employs three miners and operates one eight-hour shift, five days per week. Miners drill and blast novaculite rock in an open pit and transport the broken rock by front-end loader to an onsite portable crushing plant where the rock is crushed and sized before it is stockpiled for delivery and sale.

The principal management officials at Ouachita Rock Portable mine at the time of the accident were:

Danny Hansbrough	President
Beverly Hansbrough	Office Administrator

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on November 16, 2021. The 2021 non-fatal days lost incident rate for Ouachita Rock Portable was zero, compared to the national average of 0.99 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On January 26, 2022, Patrick Green began his shift at 7:00 a.m. His normal duties were to load customer trucks with material using a John Deere 644k front-end loader and to serve as a scale clerk. At approximately 7:30 a.m., Johnny Miner, Truck Driver, drove a dump truck onto the mine site and parked the dump truck facing the overburden stockpile. Green arrived driving the front-end loader and dumped one bucket of material into the dump truck. At the time, Miner was in the cab of the dump truck evaluating the sudden loss of air pressure in the braking system, indicated by the dump truck's low air pressure alarm. As a result of this air pressure loss [below 60 pounds per square inch (psi)], the parking brake set automatically. Miner asked Green via citizens band (CB) radio to stop loading his dump truck because there was a problem with the dump truck's braking system.

According to interviews, Green left the area to load another truck that was waiting at another stockpile approximately 100 yards away. Upon completion, Green notified Kyle Daniels, Loader Operator, via cell phone, that Miner's dump truck was having a braking system issue. Green asked Daniels to bring the mine maintenance truck to the overburden stockpile. Green returned to the overburden stockpile and parked the front-end loader approximately one hundred feet behind the dump truck.

According to Miner's interview, Miner revved the dump truck's engine to increase the air pressure in the braking system. He did not see or hear Green crawl under his dump truck because his attention was focused on the dump truck's air pressure gauge. At approximately 7:45 a.m., when the dump truck accumulated enough air pressure, Miner released the parking brake. Miner let off the service brake (brake foot pedal) for a moment when he manually released the parking brake. According to Miner's interview, the transmission was in neutral, and the dump truck unexpectedly rolled backward for approximately two feet onto Green.

Miner said that he thought he heard someone yelling, so he turned off the dump truck and got out of the cab. He observed Green lying on his back under the inside portion of the driver's side front rear tandem tires. Miner returned to the cab, drove forward toward the stockpile, exited the cab, and pulled Green out from under the dump truck. Daniels arrived and called 911.

At approximately 8:00 a.m., a Southwest Emergency Medical Service ambulance arrived and transported Green to Mena Regional Hospital. From there, Green was placed in a life flight

helicopter and flown to Saint Vincent Hospital in Hot Springs, Arkansas. At 12:00 p.m., Dr. Joshua Keithley, Physician, pronounced Green dead.

INVESTIGATION OF THE ACCIDENT

On January 26, 2022, at 9:04 a.m. Lacey Cearley, Office Assistant, called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Jim Dobyns, Mine Safety and Health Specialist. Dobyns contacted Brett Barrick, Assistant District Manager. Barrick contacted Dwight Shields, Supervisory Mine Safety and Health Inspector, who sent Allen Livingston, Mine Safety Health Inspector to the mine at 9:45 a.m. At 11:15 a.m., Livingston issued an order under the provisions of section 103(k) of the Mine Act to ensure the safety of miners and preservation of evidence.

At approximately 1:00 p.m., Barrick was notified that the victim had passed away. At 1:16 p.m., Barrick contacted Nickolas Gutierrez, Assistant District Manager, who assigned William Clark, Mine Safety Health Specialist, to be the lead accident investigator. At 3:17 p.m., Shields assigned Dave Smith, Mine Safety Heath Inspector, to aid in the investigation. Smith arrived at the mine at 5:35 p.m., ensured the accident scene was secure, and collected initial statements from mine personnel.

On January 27, 2022, at approximately 8:15 a.m., Clark arrived at the mine to begin the investigation. MSHA's accident investigation team conducted an examination of the accident scene, interviewed miners and mine management, and reviewed conditions and work practices relevant to the accident. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred in the pit area in front of the overburden stockpile (see Appendix B). Green parked the front-end loader approximately 100 feet away and to the side of the dump truck (see Appendix C). Investigators determined that Miner likely would not have been able to see the front-end loader by looking in the dump truck's mirrors. This area was nearly flat, with a slope of less than 0.75 percent.

Equipment Involved

The dump truck involved in the accident was a 1998 Western Star tri-axle dump truck (see Appendix D). The mine operator allows Miner to park this dump truck away from the mine at his house. Miner, an employee of Ouachita Rock, Inc., only drives this dump truck onto mine property to receive loads of material, which Miner then delivers to customers. The mine operator also owns a second dump truck that is parked away from the mine site and is only used to deliver material to customers.

Ty Fisher, Mine Safety and Health Specialist, and Clark examined the braking system on the dump truck. Fisher and Clark identified an air leak on the passenger side front rear tandem

inside the dump truck's frame that was caused by a damaged valve fitting. They could not determine how the valve fitting became damaged or when it occurred.

The dump truck has a dual air system for braking. One system is for the service brake and the second is for the parking brake. The air leak was in the parking brake system. Investigators tested the braking system and determined that 85-90 PSI was necessary to manually release the parking brake. Also, the low air pressure alarm reset at 80-90 PSI. When Miner released the parking brake, he was attempting to see if it would release after the air pressure increased.

Investigators did not find any other defects that affected the safe operation of the dump truck. After the braking system was repaired, the mine operator asked Edward McCormick, Contractor Mechanic, to perform the annual truck inspection as required by Department of Transportation regulations. McCormick performed a full inspection of the dump truck and determined that the dump truck passed all required criteria.

Weather

The weather at the time of the accident was 29 degrees Fahrenheit with overcast skies and a breeze of ten miles per hour. Investigators determined that weather was not a contributing factor for the accident.

Training and Experience

Green had worked as a loader operator with Ouachita Rock, Inc. for his entire mining career of approximately three years. He worked for Ouachita Rock, Inc. for one year and eight months, left employment there, then returned on October 20, 2020. On that date, he received eight hours of MSHA Part 46 Newly Hired Experienced Miner training. Green received MSHA Part 46 annual refresher training on July 22, 2021. The mine operator did not assign Green to perform truck maintenance, and therefore did not train Green to perform this task.

Miner worked as a truck driver for Ouachita Rock, Inc. for 18 years. He has a commercial driver's license and has driven trucks with similar braking systems for 20 years. The mine operator did not provide site-specific hazard awareness training for him, as required by 30 CFR § 46.11.

Examinations

Miner performed a pre-operational inspection of the dump truck at his house prior to driving to the mine. Miner stated he checked the lights, tires, listened for air leaks, and looked for oil leaks. The mine operator had conducted an examination of the working place in the pit area, with no unsafe conditions recorded. Investigators determined that the workplace examination was not a contributing factor to the accident.

Communication

The front-end loader and dump truck were both equipped with CB radios. According to interviews, the last communication between Green and Miner occurred when Miner told Green via CB radio to stop loading his dump truck because there was a problem with the dump truck's braking system. Miner did not see or hear any indication from Green that Green was going to

crawl under the dump truck. The mine operator did not have a procedure to ensure that miners on foot communicated their presence and intended actions when approaching mobile equipment.

Maintenance and Repairs of Dump Trucks

Based on interviews, investigators learned that miners do not perform maintenance or repairs of dump trucks as part of their assigned tasks. The mine operator's off-site contract mechanic normally performs all maintenance and repairs of trucks. Interviews with miners revealed that Green had not previously performed maintenance or repairs on trucks as a mine employee.

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 implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator did not ensure the dump truck was blocked against hazardous motion before performing repairs to the braking system.

   Corrective Action: The mine operator established a written procedure to turn off equipment and block against hazardous motion before performing repairs or maintenance. The mine operator trained all miners in this procedure and in the use of the blocking materials available at the mine.

2. Root Cause: The mine operator did not ensure that miners on foot communicated their presence and intended actions when approaching mobile equipment.

   Corrective Action: The mine operator developed a written procedure that requires miners on foot to communicate their presence and intended actions before approaching mobile equipment. The procedure requires the mobile equipment operator to acknowledge the presence of the miner on foot before the miner approaches. The mine operator trained all miners in this procedure.

CONCLUSION

On January 26, 2022, at approximately 7:45 a.m., Patrick Green, a 53 year-old loader operator with approximately three years of mining experience, died when he was pinned under the wheel of an over-the-road dump truck (dump truck). The driver of the dump truck was unaware that Green had crawled under the dump truck to diagnose a braking system malfunction.

The accident occurred because the mine operator: 1) did not ensure the dump truck was blocked against hazardous motion before performing repairs to the braking system, and 2) did not ensure that miners on foot communicated their presence and intended actions when approaching mobile equipment.

Approved By:

_____ _____

William O'Dell Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) Order was issued to Ouachita Rock, Inc.

   A fatal accident occurred at this operation on January 26, 2022, at 7:45 a.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. 104(a) citation was issued to Ouachita Rock, Inc. for a violation of 56.14105.

   On January 26, 2022, at 7:45 a.m., a fatal accident occurred at this mine when an over-the-road dump truck experiencing a brake issue rolled backwards on top of a miner attempting to diagnose the system issue. The dump truck driver was unaware of the miner's presence under the truck. After sufficient air pressure was established, the driver released the parking brake and the truck unexpectedly rolled backwards. The dump truck was not blocked against hazardous motion prior to evaluation of the brake system.

APPENDIX A – Persons Participating in the Investigation

Ouachita Rock, Inc.

Danny Hansbrough	President
Beverly Hansbrough	Office Administrator
David Evans	Foreman
Lacey Cearley	Office Assistant
Kyle Daniels	Loader Operator
Johnny Miner	Truck Driver

Big Ed's Brake and Air Shop

Edward McCormick	Contractor Mechanic

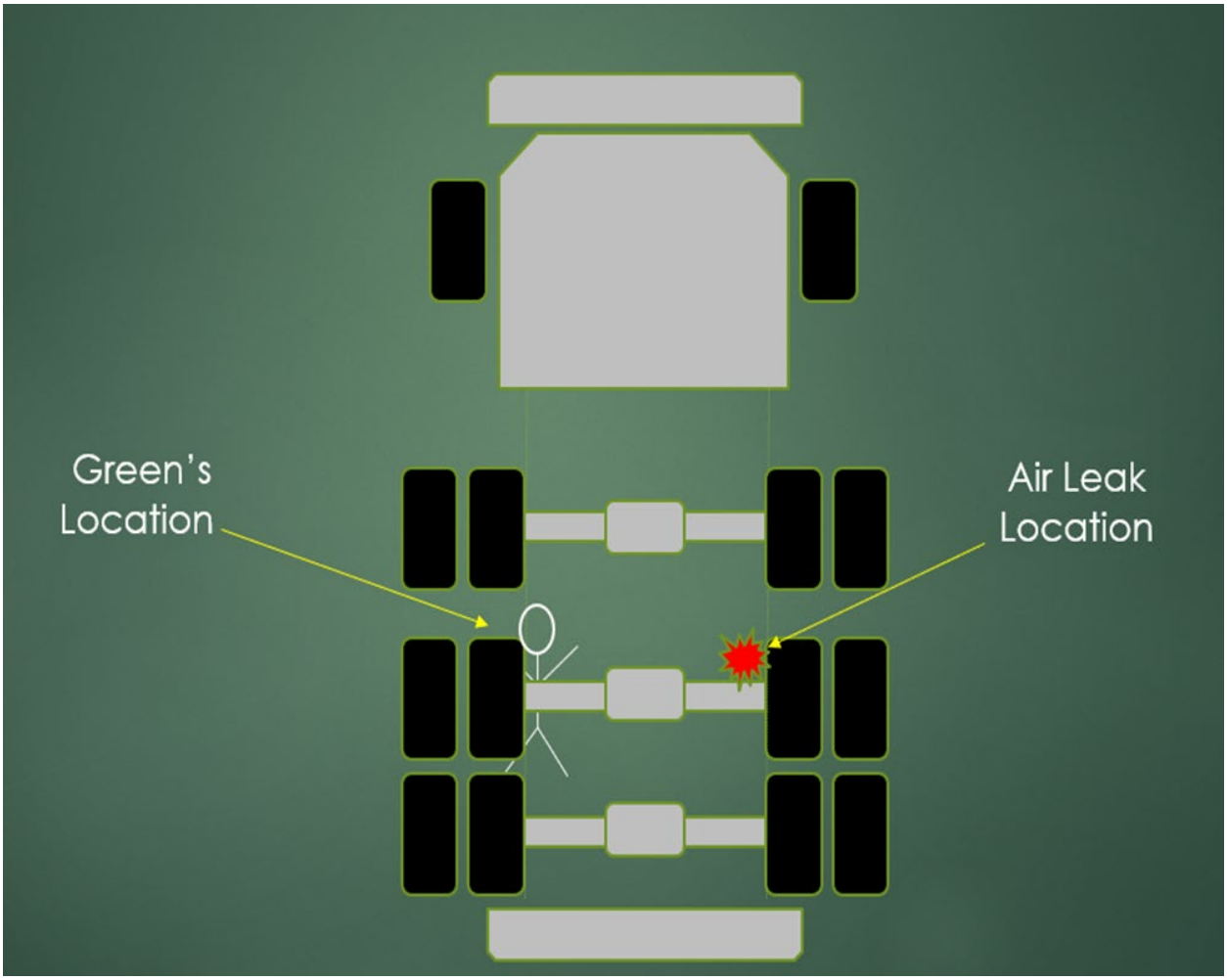
Polk County Sheriff's Department

Layton Mohr	Police Officer

Mine Safety and Health Administration

William Clark	Mine Safety and Health Specialist
Ty Fisher	Mine Safety and Health Specialist
Allen Livingston	Mine Safety and Health Inspector
Dave Smith	Mine Safety and Health Inspector

APPENDIX B – Location of Victim Under the Dump Truck



APPENDIX C – Photograph of the Accident Scene

APPENDIX D – Photograph of the Equipment Involved