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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Underground
(Coal)

Fatal Powered Haulage Accident
August 17, 2022

Tunnel Ridge Mine
Tunnel Ridge, LLC
Valley Grove, Ohio County, West Virginia
ID No. 46-08864

Accident Investigators

Joedy Gutta, P.E.
Civil Engineer

Nicholas Blevins
Mining Engineer

Originating Office
Mine Safety and Health Administration
Morgantown District
604 Cheat Road
Morgantown, West Virginia 26508
Carlos Mosley, District Manager

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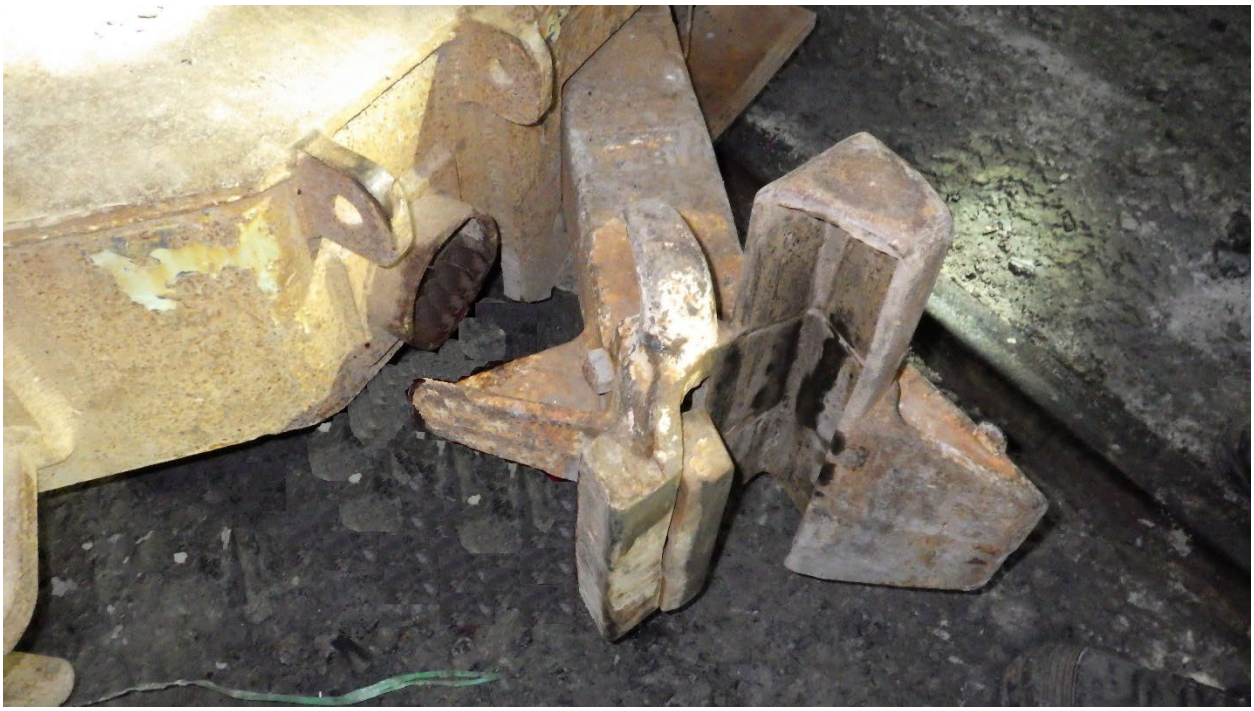

OVERVIEW

On August 17, 2022, at 9:54 a.m., William Richards, a 38 year-old general inside laborer with over 13 years of mining experience, died from injuries he sustained after being caught between a supply car and its coupler.

The accident occurred because the mine operator did not have procedures to ensure: 1) the track switch was aligned for the proper direction, 2) all miners were in a safe location while locomotives and supply cars passed the track spur, and 3) the track switch alignment indicators were maintained.

GENERAL INFORMATION

Tunnel Ridge, LLC, a subsidiary of Alliance Resource Partners, LP, owns and operates the Tunnel Ridge Mine. This is an underground bituminous coal mine located in Valley Grove, Ohio County, West Virginia. Tunnel Ridge Mine employs 436 miners and operates three eight-hour shifts, five days per week. The mine also operates through the weekend with miners working various schedules. The mine uses longwall and continuous mining machine methods to extract coal from the Pittsburgh No. 8 coal seam.

The principal management officials at Tunnel Ridge Mine at the time of the accident were:

Eric Anderson	General Manager
Joshua Duncan	Superintendent
Tracy Gilbert	Safety Director

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on June 29, 2022. A regular safety and health inspection was ongoing at the time of the accident. The 2021 non-fatal days lost injury incident rate at the Tunnel Ridge Mine was 3.97 compared to the national average of 2.93 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On August 17, 2022, Dustin Peppel, Assistant Mine Foreman, provided work assignments to the day shift miners at the Battle Run Portal. Peppel assigned Richards and Todd Harding, Locomotive Operator, to retrieve a locomotive underground at the Battle Run Portal and travel to the No. 55 crosscut (No. 55) track spur on the East Mains No. 1 (EM No. 1) track. There, Harding and Richards were to get a supply car loaded with wood lagging (lagging supply car) and take the lagging supply car to the construction crew at the No. 44 crosscut on the EM No. 1 track. Harding and Richards entered the mine at 8:18 a.m. and performed a pre-operational inspection on the No. 9 locomotive. Harding operated the No. 9 locomotive and Richards sat in the passenger seat as they traveled along the EM No. 1 track.

At approximately 9:00 a.m., Harding and Richards arrived at the No. 55 track spur and found the lagging supply car parked behind a supply car loaded with wood cribs (wood crib supply car). Harding and Richards needed to switch the supply car positions to complete the assigned task. Richards aligned the No. 55 track spur switch and Harding maneuvered the supply cars with the No. 9 locomotive numerous times until they were in the proper positions to be moved. When Harding and Richards were done, the lagging supply car was coupled to the No. 9 locomotive and the wood crib supply car was coupled to the lagging supply car. Harding pushed the supply cars with the No. 9 locomotive and parked them in the No. 55 track spur.

At 9:36 a.m., James Wheeler and Jennifer Millhouse, Locomotive Operators, asked Tim Scott, Dispatcher, for clearance to depart the Walker Slope with three loaded ballast cars. Wheeler operated the No. 6 locomotive, pulling the ballast cars while Millhouse followed behind, operating the No. 4 locomotive. Scott gave Wheeler and Millhouse clearance to proceed. At approximately 9:40 a.m., Richards notified Scott that he and Harding were parked in the No. 55 track spur clear of the EM No. 1 track. Harding sat in the No. 9 locomotive and Richards sat on the lagging supply car while they waited for the No. 4 and No. 6 locomotives and ballast cars to pass inby the No. 55 track spur.

The EM No. 1 track has a slight elevation change between No. 50 to No. 54 crosscuts. In an interview, Wheeler stated he actuated the locomotive sanding devices while traveling through this area for increased traction. Wheeler also stated that the sand created airborne dust that reduced his visibility as he approached the No. 55 track spur. The track switch was aligned for the spur and Wheeler unexpectedly felt the locomotive enter the switch at No. 55 track spur and applied the locomotive brakes. Wheeler saw Harding's cap light and yelled, "watch out."

At 9:56 a.m., the No. 6 locomotive struck the No. 9 locomotive and pushed the No. 9 locomotive and the two supply cars along the No. 55 track spur approximately 12 feet. When the locomotives and cars came to rest, Harding yelled for Richards, but Richards did not respond. Harding saw Richards caught between the lagging supply car and that car's coupler. Wheeler

exited his locomotive and walked to Richards. Millhouse called Wheeler to see why he stopped, and Wheeler responded by asking Millhouse to call Scott for an Emergency Medical Technician (EMT) and for Peppel to come to the No. 55 track spur immediately. Peppel and Bailey Evans, Trackman, who is also an EMT, were underground at the Battle Run Portal. Peppel and Evans heard the call for help and traveled to the accident location. Scott called 911 at 10:00 a.m.

Evans and Peppel arrived at the No. 55 track spur, checked Richards for a pulse, but did not detect one. Peppel; Jeffery Powers, Mine Foreman; John Borkoski, Mechanic/Electrician; Joshua Bowen, Pumper; and Damian Rihel, Fireboss, repositioned Harding's No. 9 locomotive and Wheeler's No. 6 locomotive with three ballast cars to remove Richards from between the supply car and its coupler. Richards was prepared for transport out of the mine. Ohio County Emergency Medical Services (EMS) arrived at the Battle Run Portal at 10:18 a.m. and waited for Richards to arrive at the surface. EMS assessed Richards and contacted West Virginia University Medical Command (WVU MedCom) and James Scheidler, M.D., with WVU MedCom, who pronounced Richards dead at 12:07 p.m.

INVESTIGATION OF THE ACCIDENT

On August 17, 2022, at 10:16 a.m., Tracy Gilbert, Safety Director, called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted William Spens, Supervisory Mine Safety and Health Specialist. Spens contacted Michael Stark, Staff Assistant, who sent Joedy Gutta, P.E., Civil Engineer, to the mine and assigned him as the lead investigator. James Baker, Assistant District Manager, was at the District Office and traveled with Gutta to the mine. Stark travelled to the mine shortly after.

Erik Roman, Mine Safety and Health Inspector, was conducting a noise survey underground when he learned of the accident. At 10:26 a.m., Roman issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and preservation of evidence. Kenneth Cosgrave, Supervisory Mine Safety and Health Inspector, was also at the mine conducting a regular inspection with Kevin O'Brien, Mine Safety and Health Inspector Trainee. Roman and Cosgrave exited the mine at the School House Portal and traveled by car to the Battle Run Portal.

Roman met the miners involved in the accident and obtained written statements from each miner. Gutta and Baker arrived at the Battle Run Portal at 1:00 p.m. Roman provided the written statements to Gutta and Baker and briefed them on the information he had learned. Stark arrived at the Battle Run portal at 1:30 p.m. and started collecting general mine information.

The investigation team, including MSHA and West Virginia Office of Miners' Health, Safety, and Training (WVOMHST) personnel, interviewed miners and mine management to discuss conditions and work practices relevant to the accident. At the conclusion of the interviews, the accident investigation team traveled to the accident site and conducted an examination of the area.

Gutta and Nicholas Blevins, Mining Engineer, returned to the mine on August 18, 2022. Gutta and Blevins traveled to the accident site with WVOMHST personnel. The accident investigation

team examined and tested the locomotives and the No. 55 track switch and collected additional measurements and photographs to determine the initial impact location. The No. 9 locomotive and supply cars were positioned to replicate the coupler positions as they were pushed into the spur during the accident. The investigation team conducted additional interviews on August 30, 2022. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the No. 55 track spur on the EM No. 1 track (see Appendix B). Investigators found the No. 6 locomotive parked in the middle of the switch with the three ballast cars still coupled to it. The No. 9 locomotive was parked by itself in the turn of the track spur. Two supply cars were in the spur, coupled together. The rear wheels of the wood crib supply car had been pushed beyond the rail stop at the end of the track spur. The rail stop was intact and in contact with the frame of the supply car. No other locomotives or cars were derailed in the accident.

Track Switch

The accident investigation team tested the track switch functionality, found no defects, and determined that the condition of the track switch did not contribute to the accident. At the time of the accident, the track switch was aligned for the track spur, with red reflective material on top of the throw handle. This was not the correct alignment to travel straight along the EM No. 1 track. The reflective material on top of the handle indicates the switch alignment. Green reflective material indicates the switch is aligned for the straight track. The red reflective material indicates the switch is aligned for the track spur. Based on the examination of the accident scene, the red reflective material was partially torn off the switch handle but was still easily visible from 150 feet away, when approaching the track switch. Wheeler stated that he did not see the reflector due to the dust from the No. 6 locomotive sanding devices.

The mine operator did not have procedures for confirming proper track switch alignment before passing the track spur. Investigators determined that the lack of these procedures contributed to the accident.

Equipment Involved

The two locomotives involved in the accident were Brookville 30-ton locomotives. The investigation team inspected and tested the No. 9 locomotive and the No. 6 locomotive and found no defects that contributed to the accident. Investigators also inspected and tested the No. 4 locomotive and found no defects that contributed to the accident. The lagging supply car was an Irwin model No. ER7227 flat car. Investigators examined and tested the coupling mechanism and found no defects that contributed to the accident.

Examinations

The investigation team reviewed the EM No. 1 track examination records and found them compliant, with no violations noted. The investigation team reviewed the pre-operational examination records for the locomotives and no deficiencies were noted. Investigators determined that all examinations were adequate and did not contribute to the accident.

Training and Experience

Richards had over 13 years of mining experience, including five and a half years operating track equipment at the Tunnel Ridge Mine. Prior to working at the Tunnel Ridge Mine, Richards worked as a continuous mining machine operator, scoop operator, shuttle car operator, and roof bolter at another underground coal mine for seven years and nine months. Investigators reviewed training records and determined Richards received annual refresher training and task training for a Brookville 30-ton locomotive in accordance with MSHA Part 48 training regulations.

Wheeler received task training for the operation of track equipment on August 15, 2015, in accordance with MSHA Part 48 training regulations.

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 accident occurred because the mine operator did not have procedures to ensure the track switch was aligned for the proper direction.

   Corrective Action: The mine operator implemented new written procedures to confirm the alignment of track switches before clearance is given. The mine operator trained all miners on these new procedures.

2. Root Cause: The mine operator did not have procedures to ensure all miners were in a safe location while locomotives and supply cars passed the track spur.

   Corrective Action: The mine operator implemented new written procedures to ensure miners exit rail-mounted equipment and move to a safe location until locomotives and supply cars pass track spurs. The mine operator trained all miners on these new procedures.

3. Root Cause: The mine operator did not have procedures to ensure track switch alignment indicators are maintained.

   Corrective Action: The mine operator implemented new written procedures to ensure all track switches have switch indicators installed to warn locomotive operators of the switch alignment from a sufficient distance to come to a complete stop before entering the switch. The mine operator trained all miners on these new procedures.

CONCLUSION

On August 17, 2022, at 9:54 a.m., William Richards, a 38 year-old general inside laborer with over 13 years of mining experience, died from injuries he sustained after being caught between a supply car and its coupler.

The accident occurred because the mine operator did not have procedures to ensure: 1) the track switch was aligned for the proper direction, 2) all miners were in a safe location while locomotives and supply cars passed the track spur, and 3) the track switch alignment indicators were maintained.

Approved By:

_____ _____

Carlos Mosley Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Tunnel Ridge, LLC.

   A fatal accident occurred on August 17, 2022, at 9:54 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 persons in the mine or to recover the mine or affected area. This order prohibits any activity in the affected area with exception to recovery of the injured miner. 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 314(b) safeguard was issued to Tunnel Ridge, LLC under the provisions of 75.1403.

   A fatal accident occurred at this mine on August 17, 2022, when a miner was caught between a supply car and its coupler. The miner was sitting on a supply car coupled to a locomotive parked in a track spur along the main rail line. A locomotive pulling ballast cars entered the track spur and struck the outby end of the parked locomotive, knocking the miner off the supply car and causing fatal injuries. The accident occurred because the mine operator did not have a policy or procedure to ensure: 1) the track switch was aligned for the proper direction, 2) all miners were in a safe location while locomotives and supply cars passed the track spur, and 3) track switch alignment indicators are maintained.

   This is a notice to provide a safeguard requiring:

   1. All track haulage equipment operators to report the alignment of track switches to the dispatcher if the operator changes the switch alignment to pass through the switch and leaves the area or clears up in a track spur. The dispatcher shall repeat back the position of the track switch alignment.

   2. Occupants of haulage equipment parked in a spur or side track to dismount the equipment and position themselves in a safe location, crosscut, or shelter hole while locomotives pass.

   3. All track haulage switches in this mine be provided with properly installed reflectors, lights, or other controls that warn equipment operators of the switch alignment from a sufficient distance to be able to come to a complete stop before entering the switch.

APPENDIX A – Persons Participating in the Investigation

Alliance Resource Partners, L.P.

Kenneth Murray	Vice President of Operations

Tunnel Ridge, LLC

Eric Anderson	General Manager
Joshua Duncan	Superintendent
Jeffrey Powers	Mine Foreman
Dustin Peppel	Assistant Mine Foreman
Michael Conjeski	Operations Consultant
Tracy Gilbert	Safety Director
Damian Rihel	Fireboss
Harvey Temple	Master Mechanic
John Borkoski	Mechanic/Electrician
Todd Harding	Locomotive Operator
Jennifer Millhouse	Locomotive Operator
James Wheeler	Locomotive Operator
Bailey Evans	Trackman
Tim Scott	Dispatcher
Joshua Bowen	Pumper

West Virginia Office of Miners' Health, Safety, and Training

William Coen	Mine Inspector
Jeffrey Bennett	Mine Inspector
James Bowman	Mine Inspector
Charles Sims	Mine Inspector
Robbie Mundy	Mine Inspector

Mine Safety and Health Administration

James Baker	Assistant District Manager
Michael Stark	Staff Assistant
Kenneth Cosgrave	Supervisory Mine Safety and Health Inspector
Joedy Gutta, P.E.	Civil Engineer
Nicholas Blevins	Mining Engineer
Erik Roman	Mine Safety and Health Inspector
Scott Chiccarello	Mine Safety and Health Training Specialist

APPENDIX B – Collision Drawing