FAI-6281414-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Facility
(Coal)

Fatal Powered Haulage Accident
August 11, 2021

HWM Truck Lines, Inc. (E467)
Summersville, West Virginia

at

Star Bridge Preparation Plant-Rail Load
Carter Roag Coal Company
Mill Creek, Randolph County, West Virginia
ID No. 46-06736

Accident Investigators

Joedy Gutta, P.E.
Civil Engineer

Michael Stark
Staff Assistant

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

TABLE OF CONTENTS

OVERVIEW 1
GENERAL INFORMATION 1
DESCRIPTION OF THE ACCIDENT 2
INVESTIGATION OF THE ACCIDENT 3
DISCUSSION 3
Location of the Accident 3
Equipment Involved 4
Brake System 4
Examinations 4
Training and Experience 5
ROOT CAUSE ANALYSIS 5
CONCLUSION 6
ENFORCEMENT ACTIONS 7
APPENDIX A – Map of Haul Road 8
APPENDIX B – Persons Participating in the Investigation 9
APPENDIX C – Aerial View of the Accident Scene 10

OVERVIEW

On August 11, 2021, at approximately 5:00 a.m., Timothy Collins, a 53 year-old contract truck driver with ten years and eight months of truck driving experience, died from injuries he sustained after a haul truck rolled over him.

The accident occurred because the contractor did not: 1) assure truck drivers blocked trucks when parked on a grade, and 2) maintain the truck's braking system in safe operating condition.

GENERAL INFORMATION

Carter Roag Coal Company (Carter Roag), a subsidiary of United Coal Company, owns and operates the Star Bridge Preparation Plant-Rail Load (Star Bridge Prep Plant). This facility is a coal preparation plant located near Mill Creek, Randolph County, West Virginia. Star Bridge Prep Plant employs 20 miners and operates one eight-hour shift, five days per week. Multiple contract trucking companies transport raw coal from two mines along the private haul road to the Star Bridge Preparation Plant.

HWM Truck Lines, Inc. (HWM) employs 11 miners and operates one eight-hour shift, five days per week.

The principal management officials at the Star Bridge Prep Plant at the time of the accident were:

Joshua Judge	General Manger
Curtis Wright	Safety Director

The principal management official for HWM at the time of the accident was:

H. Winston McHenry	President

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on June 29, 2021. The 2020 nonfatal days lost (NFDL) incident rate for the Star Bridge Prep Plant was zero as compared to the national average of 2.98 for mines of this type. The 2020 NFDL incident rate for HWM was zero.

DESCRIPTION OF THE ACCIDENT

On August 11, 2021, at 4:50 a.m., Tommy Neff, Truck Driver for HWM, drove Timothy Collins, Dale Williams, and Charles Lucas, Truck Drivers for HWM, to their haul trucks that were in a gravel lot near haul road marker five. Harlow McHenry II, Supervisor for HWM, directed the drivers to park their loaded trucks in this lot the previous afternoon because an accident had temporarily blocked access for haul trucks on the haul road. Pickup trucks were still able to pass through the haul road. See Appendix A for an overview of the haul road from the Star Bridge Prep Plant to the accident site.

Collins, Williams, and Lucas began conducting the pre-operational inspections of their respective trucks. Because it was dark, Collins, Williams, and Lucas were using flashlights to perform their pre-operational inspections. While Lucas was in front of his (Lucas') truck, Lucas observed Collins first inspect the passenger side of his (Collins') truck and then move to the driver's side. Lucas then went near the rear of his (Lucas') truck. Lucas heard a crash and Collins yelling for help. Lucas went to Collins, saw that he was injured because the truck had run over him, and returned to his truck and called for help on the Citizens Band (CB) radio.

Neff heard Lucas' call for help over the CB radio and rebroadcasted it over his CB. Greg Singleton, Security Guard for Cramer, was working in the guard shack at the entrance to the haul road. Singleton heard Neff's broadcast and called 911. Keith Tackett, Carter Roag Safety Inspector, was at the preparation plant and also heard the CB radio call. He notified Curtis Wright, Carter Roag Safety Director, who is also an Emergency Medical Technician (EMT). Wright traveled to the accident location. Tackett gathered EMT kits from the preparation plant and also traveled to the accident location.

McHenry II and Eric Page, Truck Driver for HWM, arrived at the accident location, followed by Tackett and Wright. Tackett and Wright were administering first aid when Collins lost consciousness. They attempted to use an Automated External Defibrillator (AED) when Wright did not detect a pulse. The AED advised "no shock" and to perform cardio-pulmonary resuscitation (CPR). Wright started CPR.

The Randolph County Emergency Medical Service (EMS) arrived at the accident site at 5:51 a.m. Randolph County EMS continued CPR until Dr. Frederick Blum, Medical Doctor with Medcom, issued a cease efforts order and pronounced Collins dead at 6:00 a.m.

INVESTIGATION OF THE ACCIDENT

On August 11, 2021, at 6:16 a.m., Roger Mahanes, Carter Roag Safety Inspector, 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 and Stark sent Joedy Gutta, P.E., Civil Engineer, to the mine.

Jeffrey Channel, Mine Safety and Health Inspector, learned of the accident when he arrived at the guard shack to perform regular inspection activities. At 6:00 a.m., Channel issued an order under the provisions of Section 103(k) of the Mine Act to assure the safety of the miners and preservation of evidence. Channel called Gregory Fetty, Assistant District Manager, to inform him of the accident. Investigators from the West Virginia Office of Miners' Health, Safety, and Training (WVOMHST) and Channel traveled to the accident location and took some initial photographs and measurements. Channel and the WVOMHST investigators then traveled to the Star Bridge Prep plant to conduct interviews. Stark and Gutta arrived and participated in the interviews as well.

The investigation team, including MSHA and WVOMHST personnel, traveled to the accident site and conducted an examination of the area at the conclusion of the interviews. Fetty and Derek Bragg, Supervisory Mine Safety and Health Inspector, arrived and also traveled with the investigation team.

The investigation team conducted examinations and testing of the truck on August 12, 2021, and August 19, 2021. The investigation team conducted additional interviews on August 23, 2021. See Appendix B for a list of persons who participated in the investigation.

DISCUSSION

<u>Location of the Accident</u>
The accident occurred in a gravel lot near haul road marker five. The four loaded HWM trucks were directed by McHenry II to use the gravel lot as a temporary parking location the previous afternoon (see Appendix C).

Investigators found Collins' truck rolled over a rock berm with the front tires in the ditch. The grade along the truck's path of travel increased in steepness as the truck moved away from its parked position. The grade ranged from approximately 4.5 to 19 percent. The defined tire tracks left in the mud indicated the tires on the truck were rolling, not sliding, demonstrating the parking brakes did not stop the truck.

Equipment Involved

The truck involved in the accident was a 2008 International Paystar 5000 Dump Truck, equipped with a standard transmission, tandem rear drive axles, and a single front non-drive steer axle. All wheels were equipped with S-cam air brakes, and the tandem wheels were also equipped with spring applied parking brakes. Reynolds Truck Equipment retrofitted the truck with an off-road bed and a gross vehicle weight rating (GVWR) of 82,800 lbs., or 41.4 tons. Investigators found the truck loaded with approximately 40 tons of coal, the transmission in neutral, and the parking brakes set. When empty, the truck weighed approximately 22 tons. Investigators determined that the truck was carrying a load that exceeded the GVWR by more than 20 tons.

Investigators allowed HWM to partially unload the truck to facilitate recovery and placement in a safe location for inspection. HWM used an excavator to unload approximately 35 tons of coal which left an estimated five tons of coal in the truck bed. Investigators observed the truck's tandem wheels rolling while the truck was being recovered with the park brake set, demonstrating the parking brakes did not prevent motion of the wheels. Investigators also learned through interviews that the truck was not blocked when parked and had been left unattended on August 10, 2021, the day before the accident.

Brake System

Investigators conducted a functional test of the brake system components. James Hamner, Mechanic for HWM, drained a significant amount of water from the truck's air tanks before connecting an air compressor to facilitate testing. Any amount of water in the air tanks decreases the efficiency of the braking system.

An air compressor was used to pressurize the air brake system to test the service brakes and release the parking brake. Hamner applied the service brake while the investigators evaluated the brake function. The Commercial Vehicle Safety Alliance (CVSA) adjustment limits for the truck's braking assemblies are between 0.5 inches and 2.0 inches. Investigators found the braking system to be at the adjustment limit with one brake assembly (1.75 inches), two brake assemblies to be at the adjustment limit (2.0 inches), and one brake assembly beyond adjustment limit (2.25 inches). When the service brakes were released, investigators also observed irregular movement of both brake assemblies on the forward tandem axle which indicates deficiencies.

Investigators conducted a visual inspection of the braking system and discovered that the park brake shoes were not in full contact with the drum in all locations with the parking brakes set. Investigators also checked the brake assemblies with no braking systems applied and discovered the driver's side rear tandem axle brake shoes were loose and protruded 0.5 inches out of the drum indicating damaged or worn internal brake system components.

Examinations

The investigators reviewed the haul road examination records conducted by the mine operator and found them to be in compliance. The pre-operational inspection of the truck had been started but not completed at the time of the accident. A review of the pre-operational records for the previous day's inspections revealed no recorded deficiencies.

Training and Experience

Timothy Collins had two years and eight months of mining experience, all as a truck driver with HWM. Collins worked as a truck driver in non-mining operations at various times prior to his employment with HWM. Collins had a total of ten years and eight months of experience driving trucks, which included hauling logs prior to his experience hauling coal. Investigators reviewed Collins' training records and found he had received annual refresher training on March 27, 2021, and task training on the International Paystar truck on January 25, 2020, in accordance with MSHA Part 48 training regulations. Additionally, the mine operator trained HWM truck drivers, including Collins, to set the brakes and turn the wheels into a berm or bank or block the wheels against motion when equipment is unattended.

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 contractor implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The contractor did not assure truck drivers blocked trucks when parked on a grade.

   Corrective Action: The contractor implemented new written procedures to confirm that all truck drivers block or use other means to prevent unintended motion of parked haul trucks. The contractor trained its truck drivers. As an additional precaution, the mine operator voluntarily implemented new written procedures to require that all haul truck drivers on the property block or turn their truck's wheels into a bank or berm when parked on a grade. The procedures state that this must be done at all times, wherever the haul trucks are parked. The procedures also require wheels to be blocked in both directions (forward and reverse). The contractor trained all truck drivers on the new procedures.

2. Root Cause: The contractor did not maintain the truck's braking system in safe operating condition.

   Corrective Action: The contractor developed written procedures for daily brake examinations and daily testing for its trucks on the haul road. As an additional precaution, the mine operator developed written procedures for daily brake examinations, and daily testing for trucks on the haul road by all contract trucking companies on its property. The mine operator trained all truck drivers on the new procedures.

CONCLUSION

On August 11, 2021, at approximately 5:00 a.m., Timothy Collins, a 53 year-old contract truck driver with ten years and eight months of truck driving experience, died from injuries he sustained after a haul truck rolled over him.

The accident occurred because the contractor did not: 1) assure truck drivers blocked trucks when parked on a grade, and 2) maintain the truck's braking system in safe operating condition.

Approved By:

______________________________ ____________

Carlos Mosley Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Star Bridge Preparation Plant-Rail Load.

   A fatal accident occurred on August 11, 2021, at approximately 5:00 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. 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 HWM Truck Lines, Inc. for a violation of 30 CFR 77.404(a).

   A fatal accident occurred at this operation on August 11, 2021, when the C/O #34, 2008 International Paystar Dump Truck unexpectedly started moving. The truck was not maintained in a safe operating condition. The braking system failed to restrain the truck on a grade allowing the truck to roll. The following deficiencies were identified:

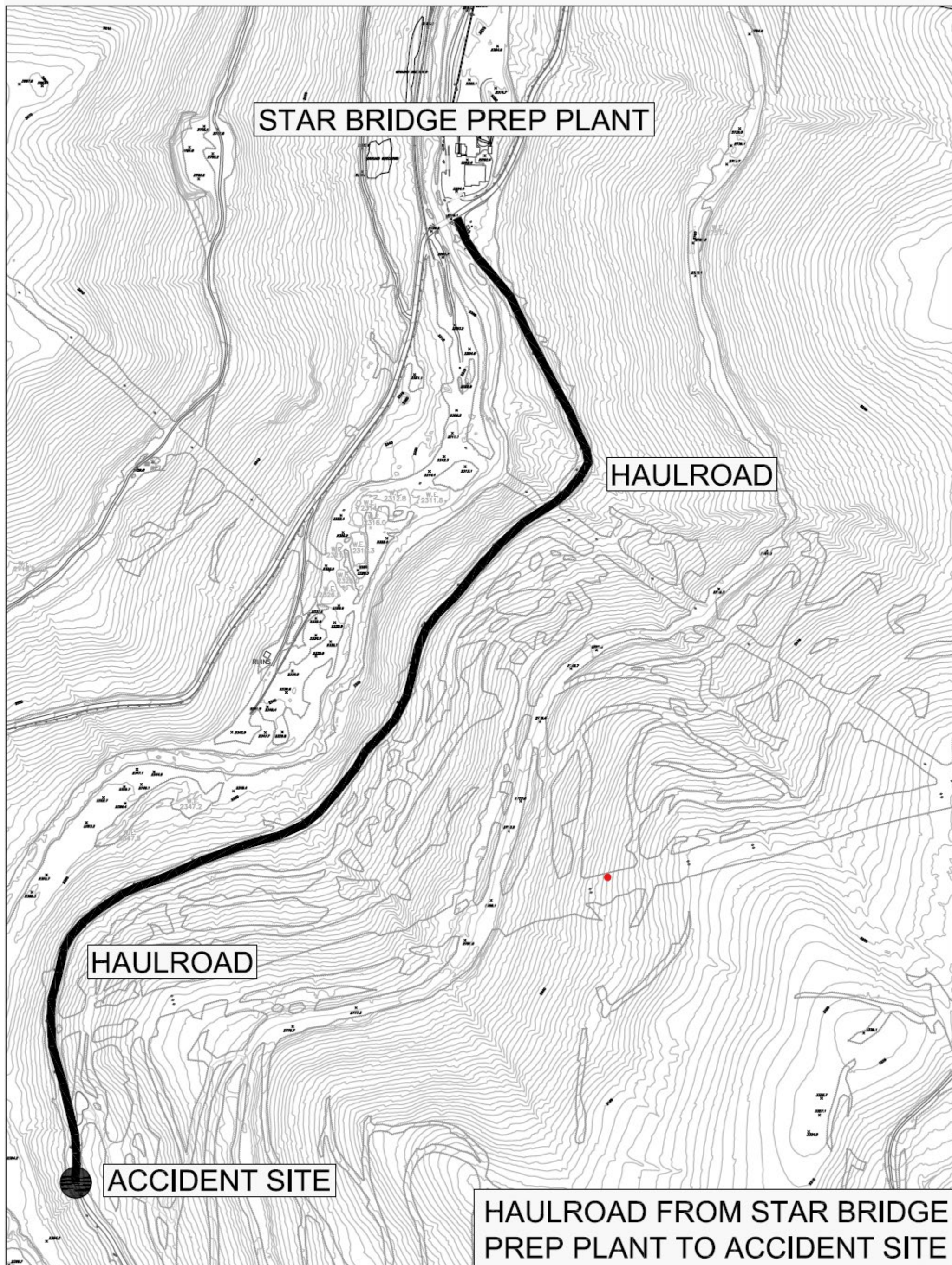
   An excessive amount of water was drained from the air tanks. One brake assembly was beyond the adjustment limit (2.25 inches). Irregular movement of the brake chamber and stroke on both brake assemblies on the forward tandem axle was observed when the service brakes were released. The brake shoes were not in full contact with the drum with the parking brake set. The driver's side rear drive axle brake pads were loose, allowing movement of the shoes when the brakes were not applied, and they protruded out of the drum 1/2- inch. The passenger's side rear drive axle bottom brake pads appear frozen in place during service brake application.

3. A 104(d)(1) citation was issued to HWM Truck Lines, Inc. for a violation of 30 CFR 77.1607(n).

   A fatal accident occurred at this operation on August 11, 2021, when the C/O #34, 2008 International Paystar Dump Truck unexpectedly started moving. The truck was parked on a grade without the wheels being blocked or wheels turned into a bank or berm.

   The contractor engaged in aggravated conduct constituting more than ordinary negligence in that the HWM supervisor instructed the truck driver to park the loaded truck on a grade and to turn the wheels uphill. Turning the wheels uphill does not meet the requirement of this standard. No berm or bank was present in the area and the contractor did not provide chocks or other blocking devices. This violation is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Map of Haul Road



APPENDIX B – Persons Participating in the Investigation

United Coal Company

Name	Title
Daniel Sole	Assistant Vice President

Carter Roag Coal Company

Name	Title
Curtis Wright	Safety Director
Joshua Judge	General Manager
John Lewis	Safety Inspector
Keith Tackett	Safety Inspector

Cramer

Name	Title
Greg Singleton	Security Guard

HWM Truck Lines, Inc.

Name	Title
Harlow McHenry II	Supervisor
Charles Lucas	Truck Driver
Tommy Neff	Truck Driver
Eric Page	Truck Driver
Dale Williams	Truck Driver
James Hamner	Mechanic
Joseph Howard	Mechanic

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

Name	Title
Jeffrey Bennett	Mine Inspector
James Bowman	Mine Inspector
Michael Southern	Mine Inspector
John Meadows	Assistant Inspector at Large
David McCullough	Safety Instructor

Mine Safety and Health Administration

Name	Title
Gregory Fetty	Assistant District Manager
Michael Stark	Staff Assistant
Joedy Gutta, P.E.	Civil Engineer
Derek Bragg	Supervisory Mine Safety and Health Inspector
Jeffrey Channel	Mine Safety and Health Inspector

APPENDIX C – Aerial View of the Accident Scene