FAI-F009293-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Coal)

Fatal Powered Haulage Accident
July 25, 2024

Hazleton Shaft
Atlantic Carbon Group, Inc.
Hazle Township, Luzerne County, Pennsylvania
ID No. 36-08766

Accident Investigators

Christian Epting
Mine Safety and Health Inspector

Stephen Kowalick
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Mt. Pleasant District
631 Excel Drive, Suite 100
Mt. Pleasant, Pennsylvania 15666
Michael Kelley, District Manager

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OVERVIEW

On July 25, 2024, at 11:10 p.m., Brian Brotzman, a 44-year-old plant laborer with over one year of mining experience, died when material engulfed him against the inclined stacker belt conveyor feed chute. Brotzman was kneeling and shoveling on the incline stacker belt conveyor when the stacker belt conveyor unexpectedly rolled backward.

The accident occurred because the mine operator did not: 1) block the stacker belt conveyor against motion, 2) install a backstop or brake on the stacker belt conveyor drive unit to prevent the stacker belt conveyor from rolling backward and causing a hazard to miners, and 3) provide task training on safe maintenance and repair procedures for belt conveyors.

GENERAL INFORMATION

Atlantic Carbon Group, Inc. owns and operates Hazleton Shaft. The mine is an anthracite coal processing plant in Hazle Township, Luzerne County, Pennsylvania. The mine employs 49 employees. The mine operates two, ten-hour shifts per day, five days per week. Trucks bring raw coal to the processing plant from other mines. Front-end loaders stockpile the raw coal at the head house where it is initially screened and sized. The head house is the primary mill. Miners manually remove wood and rock. Belt conveyors transport the coal from the head house to a transfer tower. A stacker belt conveyor transports the coal for stockpiling (see Appendix A).

The principal management officials at Hazleton Shaft at the time of the accident were:

Michael Basile	Safety Director
David Hampton	Electrician/Superintendent
John Hirko	Second Shift Foreman

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on March 26, 2024. The 2023 non-fatal days lost incident rate for Hazleton Shaft was 3.40, compared to the national average of 2.26 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On July 25, 2024, at 3:37 p.m., Brotzman began his shift cleaning spillage inside the preparation plant. Around 9:10 p.m. the stacker belt conveyor, at the head house area, stopped abruptly because deteriorated drive belts failed.

John Hirko, Second Shift Foreman, walked up the stacker catwalk with Zachary Petrole, Head House Front-End Loader Operator, and looked at the material on the stacker belt conveyor and at the stacker belt conveyor drive unit. Hirko instructed Brotzman via company radio to report to the Head House stacker to remove material from the stacker belt conveyor.

Hirko was at the stacker and directed Brotzman, Petrole, and Claudio Ramirez, Head House Operator, to remove material from the stacker belt conveyor. Hirko left and went to the supply container to get new drive belts. At approximately 9:25 p.m., Brotzman climbed onto the top of the stacker, positioning himself approximately ten feet from the stacker feed chute. Brotzman was kneeling, facing downward towards the stacker feed chute, and began shoveling material off the stacker belt conveyor. Ramirez and Petrole were standing on the catwalk shoveling material from the stacker belt conveyor above Brotzman. Hirko, returned with new drive belts and handed them to Petrole.

At approximately 9:30 p.m., Hirko saw Brotzman on the stacker but did not instruct him to get down. The stacker belt conveyor unexpectedly rolled backward. Petrole heard Brotzman shout as he tried to get off the moving stacker belt conveyor. Petrole reached out and grabbed Brotzman's hand. The material moving downwards on the stacker belt conveyor broke Petrole's grip of Brotzman's hand. The material pushed Brotzman downwards, into, and underneath the stacker feed chute and then engulfed him. Hirko immediately radioed "Miner Down," calling for all miners to report to the stacker to rescue Brotzman. Hirko radioed Richard Wentzel, Plant Operator, and told him to call 911.

Brandon Lindenmuth and Jamie Koslop, Plant Laborers, arrived at the stacker. Lindenmuth and Koslop said the stacker belt conveyor was moving backwards intermittently as they removed material to access Brotzman. Koslop attempted to physically hold the stacker belt conveyor to prevent it from moving backwards. When Koslop removed material from Brotzman's face, he was unresponsive.

Wentzel called 911 at 9:51 p.m. The Hazle Township Fire and Rescue Company and Lehigh Valley Emergency Medical Services (EMS) arrived at 10:01 p.m. and found Brotzman unconscious and unresponsive. Jeffrey Stock, Luzerne County Deputy Coroner, pronounced Brotzman dead at 11:10 p.m. The fire department required the stacker belt conveyor to be blocked from motion before extricating Brotzman (see Appendix B).

INVESTIGATION OF THE ACCIDENT

At 10:00 p.m., Basile called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Patrick Boylan, Supervisory Mine Safety and Health Inspector. Boylan informed Michael Wess, Staff Assistant, who informed Michael Kelley, District Manager, and Todd Anderson and Jeremy Williams, Assistant District Managers.

Boylan sent Christian Epting and Stephen Kowalick, Mine Safety and Health Inspectors, to the mine. Epting arrived at 11:03 p.m., followed by Kowalick at 11:10 p.m. At 11:15 p.m., Epting 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.

In collaboration with the Pennsylvania Department of Environmental Protection, Bureau of Mine Safety, MSHA's accident investigation team performed an examination the accident scene, interviewed miners, mine management, and other personnel from Hazleton Shaft, and reviewed conditions and work practices relevant to the accident. See Appendix C for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred on the stacker at the Head House area of the mine.

Weather

The weather was 70 degrees Fahrenheit, no precipitation, and light winds at the time of the accident. The investigation team determined weather did not contribute to the accident.

Equipment Involved

The equipment involved was a stacker, 158 feet in length. See Appendix D for the stacker design. The stacker belt conveyor is 36 inches wide and driven by a 60 HP, 480 Volt AC induction motor. The electric motor transmits power to the Edwards Speed Reduction Gearbox with four, 5VX drive belts. The Edwards Speed Reducer Gearbox has a speed reduction ratio of 26.2:1. The stacker belt conveyor speed was calculated at approximately 350 feet per minute.

The stacker had not been blocked from motion before the miners were directed to remove material from the stacker belt conveyor. According to interviews, miners said they had not previously used the modified locking pliers and homemade angle iron clamp to block a belt conveyor against motion. The mine operator has a posted safety policy in the mine's change room that only requires "No work shall be performed on machinery, equipment and/or

attachments until the power is off and such machinery, equipment and/or attachments have been securely blocked in position." The policy does not include instructions on how to block equipment or belt conveyors. Proper tools and equipment to block the stacker belt conveyor from motion were not available at the time of the accident. The investigation team determined not blocking the inclined stacker belt conveyor from motion contributed to the accident.

The mine operator was unaware that the stacker belt conveyor was not equipped with a backstop or brake device to prevent unintentional and hazardous movement of the stack belt conveyor. Investigators determined that a backstop or brake device would have been visible if installed on the drive unit of the stacker belt conveyor. The investigation team determined the stacker not having a backstop or brake device installed contributed to the accident.

Previous Accident

According to interviews with miners, the Main Feed belt conveyor, located at the preparation plant, had unexpectedly rolled backwards weeks prior to this fatal accident. Miners stated that after they finished cleaning the tail pulley of the Main Feed belt conveyor, the remaining material on the belt conveyor abruptly traveled backwards, burying the tail pulley area they had just cleaned. Investigators found there was no backstop on the Main Feed belt conveyor.

Examinations

The last record of an on-shift examination conducted by Hirko for the head house and preparation plant areas of the mine was on the second shift of July 25, 2024, and no hazards were noted for the stacker or the stacker belt conveyor. Investigators found that Hirko had performed previous on-shift examinations of the stacker but did not document any hazards.

Training and Experience

Brotzman had over one year of mining experience, all as a plant laborer for Hazelton Shaft. According to interviews and records, the investigation team determined the mine operator did not task train Brotzman, or any of the miners at Hazelton Shaft, on safe maintenance and repair procedures for belt conveyors. Investigators determined not providing Brotzman with task training to safely work around belt conveyors contributed to the accident.

ROOT CAUSE ANALYSIS

The accident investigators conducted an analysis to identify the underlying causes of the accident. The investigators 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 block the stacker belt conveyor against motion.

   Corrective Action: The mine operator has provided proper equipment and devices, and trained miners on their use, to block belt conveyors from motion.

2. Root Cause: The mine operator did not install a backstop or brake on the stacker belt conveyor drive unit to prevent the stacker belt conveyor from rolling backwards and causing a hazard to miners.

   Corrective Action: The mine operator installed backstop devices on the stacker and trained miners on proper test procedures.

3. Root Cause: The mine operator did not provide task training on safe maintenance and repair procedures for belt conveyors.

   Corrective Action: The mine operator developed and implemented new task training for maintenance and repair of belt conveyors.

CONCLUSION

On July 25, 2024, at 11:10 p.m., Brian Brotzman, a 44-year-old plant laborer with over one year of mining experience, died when material engulfed him against the inclined stacker belt conveyor feed chute. Brotzman was kneeling and shoveling on the incline stacker belt conveyor when the stacker belt conveyor unexpectedly rolled backward.

The accident occurred because the mine operator did not: 1) block the stacker belt conveyor against motion, 2) install a backstop or brake on the stacker belt conveyor drive unit to prevent the stacker belt conveyor from rolling backward and causing a hazard to miners, and 3) provide task training on safe maintenance and repair procedures for belt conveyors.

Approved By:

_____ _____

Michael Kelley Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Atlantic Carbon Group, Inc.

   A fatal accident occurred on July 25, 2024, at 9:30 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 for 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(d)(1) citation was issued to Atlantic Carbon Group, Inc. for a violation of 30 CFR 77.404(c).

   On July 25, 2024, a fatal accident occurred when material engulfed a miner against the stacker belt conveyor's feed chute. The miner was kneeling and shoveling on the stacker belt conveyor when the belt conveyor unexpectedly rolled backward. The mine operator did not block the machinery against motion before repairs or maintenance was performed on the inclined stacker belt conveyor. The second shift foreman directed miners to remove material off the stacker belt conveyor without blocking the stacker belt conveyor from motion. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by not blocking the machinery against motion before the miners were directed to perform repairs and maintenance on the stacker belt conveyor. This is an unwarrantable failure to comply with a mandatory standard.

3. A 104(d)(1) order was issued to Atlantic Carbon Group, Inc. for a violation of 30 CFR 77.1607(dd).

   On July 25, 2024, a fatal accident occurred when material engulfed a miner against the stacker belt conveyor's feed chute. The miner was kneeling and shoveling on the stacker belt conveyor when the belt conveyor unexpectedly rolled back. The mine operator did not install a backstop or brake on the inclined stacker belt conveyor to prevent the conveyor from running in reverse and cause a hazard to personnel. The second shift foreman directed miners to remove material off the stacker belt conveyor without a backstop or brake on the stacker belt conveyor to prevent it from rolling backward where there was a hazard to miners. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by not installing a backstop or brake on the inclined stacker belt conveyor to prevent the conveyor from running in reverse when a hazard to miners existed. This is an unwarrantable failure to comply with a mandatory standard.

4. A 104(d)(1) order was issued to Atlantic Carbon Group, Inc. for a violation of 30 CFR 48.27(c).

   On July 25, 2024, a fatal accident occurred when material engulfed a miner against the stacker belt conveyor's feed chute. The miner was kneeling and shoveling on the stacker belt

conveyor when the belt conveyor unexpectedly rolled backward. The second shift foreman assigned the miner to perform the work task of haulage and conveyor systems maintenance before providing and completing the task training. The second shift foreman directed the miners to remove material off the stacker belt conveyor. The Federal Mine Safety and Health Act of 1977 declares that an untrained miner is a hazard to themselves and to others. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by not providing task training before assigning the miner to perform the task of haulage and conveyor systems maintenance. This is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Aerial View of the Head House Area

APPENDIX B – Inclined Stacker Belt Conveyor Loaded with Material

APPENDIX C – Persons Participating in the Investigation

Atlantic Carbon, Inc.

Michael Basile	Safety Director
David Hampton	Electrician/Superintendent
John Hirko	Second Shift Foreman
Richard Wentzel	Plant Operator
Jamie Koslop	Plant Laborer
Brandon Lindenmuth	Plant Laborer
Richard Makara	Plant Laborer
Zachary Petrole	Head House Front-End Loader Operator
Claudio Ramirez	Head House Operator

Pennsylvania Department of Environmental Protection, Bureau of Mine Safety

Troy Wolfgang	Chief, Anthracite Division
Arthur Snyder	Anthracite Underground Mine Inspector
Kenneth Dengler	Anthracite Underground Mine Electrical Inspector

Mine Safety and Health Administration

Michael Kelley	District Manager
Patrick Boylan	Supervisory Mine Safety and Health Inspector
Christian Epting	Mine Safety and Health Inspector
Stephen Kowalick	Mine Safety and Health Inspector
Brett Chiccarello	Mine Safety and Health Training Specialist
Kathleen Hemmerlin	Mine Safety and Health Training Specialist
Charles Gasperetti	Mine Safety and Health Inspector Trainee

APPENDIX D – Inclined Stacker Belt Conveyor Design Drawing