

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Crushed, Broken Sandstone NEC)

Fatal Powered Haulage Accident
September 18, 2024

American Asphalt – Chase Quarry
American Asphalt Paving Company
Shavertown, Luzerne County, Pennsylvania
ID No. 36-00005

Accident Investigators

Leslie Tharp
Supervisory Mine Safety and Health Specialist

Shawn Heim
Mine Safety and Health Specialist

Originating Office
Mine Safety and Health Administration
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Peter Montali, District Manager

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OVERVIEW

On September 18, 2024, at 9:24 a.m., David Brace, a 68-year-old truck driver with 45 years of mining experience, died when a front-end loader struck him.

The accident occurred because the mine operator did not: 1) ensure the front-end loader operator could safely perform the assigned task, and 2) ensure the front-end loader was operated at speeds consistent with visibility and traffic conditions.

GENERAL INFORMATION

American Asphalt Paving Company owns and operates the American Asphalt – Chase Quarry (Chase Quarry), a surface sandstone mine located in Shavertown, Luzerne County, Pennsylvania. The Chase Quarry employs 17 miners and operates one ten-hour shift per day, five days per week. The mine extracts, hauls, and processes sandstone from the quarry for supplying material to their asphalt plant and loading customer trucks with various materials for commercial sales.

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

Bernard Banks, Jr.

President

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on May 24, 2024. The 2023 non-fatal days lost incident rate for the Chase Quarry was 4.72, compared to the national average of 1.12 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On September 18, 2024, at 6:26 a.m., Brace arrived at the mine and clocked in to begin his shift. According to interviews, video surveillance, and the truck's video footage, at 7:02 a.m., Brace got into his dump truck and delivered two loads of material to customers off-site. At 9:15 a.m., Brace arrived back at the mine for his third load. At 9:22 a.m., Brace pulled off to the side of the Main Haul Road, parked, and exited his truck. At 9:24 a.m., Robert Budner, Front-End Loader Operator, traveled down the Main Haul Road toward the stockpile to load a customer truck, and Brace was struck by the front-end loader.

At 9:25 a.m., Brandon Hughes, Truck Coordinator, called Brian Banks, Vice President of Materials, and informed him that someone had been hit by the front-end loader. Due to the extent of the injuries, first aid was not attempted. Kaitlin Keating, Luzerne County Medical Examiner/Coroner, arrived on site and pronounced Brace dead at 10:25 a.m.

INVESTIGATION OF THE ACCIDENT

At 9:54 a.m., Banks called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Cody Sheldon, Supervisory Special Investigator. Sheldon notified Kevin Abel, Assistant District Manager, who then assigned Leslie Tharp, Supervisory Mine Safety and Health Specialist, as the lead accident investigator. Tharp also contacted Shawn Heim, Mine Safety and Health Specialist, to assist with the investigation.

At 11:48 a.m., Kyle Stofko, Mine Safety and Health Inspector, arrived at the mine and issued an order under the provisions of Section 103(k) of the Mine Act at 11:50 a.m. to ensure the safety of the miners and preservation of evidence.

MSHA's accident investigation team, in conjunction with the Pennsylvania Department of Environmental Protection, conducted an examination of the accident scene; interviewed contractors, 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 on the 40-foot-wide Main Haul Road (see Appendix B).

Weather

The weather at the time of the accident was 66 degrees Fahrenheit with five-mile-per-hour winds. Investigators determined that the weather did not contribute to the accident.

Equipment Involved

The equipment involved in the accident was a Volvo L180H front-end loader (see Appendix C). Investigators conducted an examination of the front-end loader and did not find any mechanical deficiencies or defects that contributed to the accident.

According to the manufacturer's manual, the bucket or other attachments should be raised to 12 to 16 inches off the ground when the front-end loader is traveling in the forward direction to provide operator visibility and machine stability. According to the video obtained from the dash camera on Brace's dump truck along with measurements taken by investigators at the accident site, investigators calculated the front-end loader was traveling 12 to 15 miles per hour with the bucket approximately four to five feet off the ground.

Investigators conducted a simulation to determine the areas of visibility for the front-end loader operator with the bucket raised. When the bucket was four feet off the ground, an investigator standing three feet in front of the bucket was not visible from the front-end loader operator's cab. The investigator walked away from the bucket and his head became visible to the front-end loader operator's cab when he was 27 feet from the bucket. When the bucket was five feet off the ground, an investigator standing three feet in front of the bucket was only visible from the knees down to the feet. The investigator walked away from the bucket and his head became visible to the front-end loader operator's cab when he was 57 feet from the bucket. The investigator's full body did not come into view until he was 131 feet away from the bucket.

Traffic Control

The mine operator did not establish rules regarding: 1) clearance when passing stopped vehicles along the roadway, 2) designated areas for over-the-road trucks to get out and check their loads, 3) communication with stopped vehicles, and 4) the position of the front-end loader bucket when traveling throughout the mine. The mine operator also did not ensure the front-end loader was operated at speeds consistent with visibility and traffic conditions, which contributed to the accident.

Training and Experience

Brace had approximately 45 years of mining experience, all at this mine as an over-the-road truck driver. Investigators determined Brace received all training in accordance with MSHA Part 46 training regulations.

Robert Budner, Front-End Loader Operator, had approximately five years of experience operating front-end loaders. The mine operator's Part 46 Training Plan lists Budner as the competent person to provide New Miner Training, New Experienced Miner Training, Task Training, and Mobile Equipment Operations and Maintenance Training. The mine operator purchased the front-end loader from the company Highway Equipment in 2019. A representative from Highway Equipment provided Budner with basic training on the functions and maintenance of the front-end loader. Highway Equipment did not instruct Budner how to operate the front-

end loader and did not observe him operate it. The mine operator did not ensure Budner could safely perform the assigned task and did not ensure that Budner was aware of the manufacturer's recommendation of bucket height while in motion. Investigators determined that this contributed to the accident.

Examinations

Kenneth Howell, Pit Foreman, conducted a workplace examination of the pit and quarry the morning of the accident and did not note any hazards. Investigators determined that the examinations were adequate and did not contribute to the accident.

Budner conducted a pre-operational inspection on the Volvo L180H front-end loader and did not note any defects. Investigators determined that the inspection was adequate and did not contribute to the accident.

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 front-end loader operator could safely perform the assigned task.

Corrective Action: The mine operator updated their training plan and trained all mobile equipment operators to ensure they are adequately task trained to safely operate the Volvo L180H front-end loader.

2. Root Cause: The mine operator did not ensure the front-end loader was operated at speeds consistent with visibility and traffic conditions.

Corrective Action: The mine operator installed signs around the mine site alerting persons of restricted clearance, blind spots, and restricted areas. The mine operator developed and implemented a written procedure requiring equipment operators to slow down when passing vehicles and maintain additional distances between equipment. The mine operator trained all front-end loader operators to travel with the bucket in an appropriate position according to the manufacturer's manual. Additionally, the mine operator updated the site-specific hazard awareness training to require all miners to wear high visibility vests/shirts, and to require vehicle/equipment operators to establish eye contact with other nearby vehicle/equipment operators prior to exiting a vehicle/equipment.

CONCLUSION

On September 18, 2024, at 9:24 a.m., David Brace, a 68-year-old truck driver with 45 years of mining experience, died when a front-end loader struck him.

The accident occurred because the mine operator did not: 1 ensure the front-end loader operator could safely perform the assigned task, and 2) ensure the front-end loader was operated at speeds consistent with visibility and traffic conditions.

Approved By:

Peter Montali
District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to American Asphalt Paving Company.

A fatal accident occurred on September 18, 2024, at 9:24 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. A 104(a) citation was issued to American Asphalt Paving Company for a violation of 30 CFR 46.7(a).

On September 18, 2024, a fatal accident occurred at this mine when a truck driver was struck by a Volvo L180H front-end loader shortly after exiting his truck. The operator of the Volvo L180H front-end loader (Ser#VCEL180HC00004309) did not receive all required task training for the operation of the front-end loader. The mine operator did not ensure the front-end loader operator could safely perform the assigned task.

3. A 104(a) citation was issued to American Asphalt Paving Company for a violation of 30 CFR 56.9101.

On September 18, 2024, a fatal accident occurred at this mine when a truck driver was struck by a Volvo L180H front-end loader shortly after exiting his truck. The operator of the Volvo 180H Front-End Loader (Ser#VCEL180HC00004309) was traveling on the roadway with the bucket at a height that created a visibility hazard. The bucket was approximately four to five feet off the ground, obstructing his view. The mine operator did not ensure the front-end loader was operated at speeds consistent with visibility and traffic conditions.

APPENDIX A – Persons Participating in the Investigation

American Asphalt Paving Company

Bernard Banks, Jr.	President
Brian Banks	Vice President of Materials
Bernard Banks III	Vice President of Construction
Karen Banks	Human Resources Manager
Alise Young	Assistant Human Resources
Kenneth Howell	Pit Foreman
Jason Howell	Plant Foreman
Brandon Hughes	Truck Coordinator
Robert Budner	Front-End Loader Operator

Pennsylvania Department of Environmental Protection

Joseph McCarthy	Surface Mine Conservation Inspector
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Mine Safety and Health Administration

Leslie Tharp	Supervisory Mine Safety and Health Specialist
Shawn Heim	Mine Safety and Health Specialist
Kyle Stofko	Mine Safety and Health Inspector
Kathleen Hemmerlin	Mine Safety and Health Training Specialist
Scott Chiccarello	Mine Safety and Health Training Specialist

APPENDIX B – Aerial View



APPENDIX C – Photo of Front-End Loader

